

Mastering Donkey Kong!

The Beginner's Manual

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(Put faded picture in the background)

An Introduction to Donkey Kong

(Cool Picture here, maybe the KO3 DK marquee)

Preface

A little History

Ever since Donkey Kong was first released in July of 1981, it has been one of the most iconic symbols of the arcade culture. Following close behind Pac-Man, Donkey Kong has probably been the most referenced and recognized symbol from the “Golden Age” of video games. The game has inspired several versions which have been ported to home consoles as well as several sequels under the Donkey Kong name. (picture of KO3 cab stuff here)

Many classic arcade games, especially Donkey Kong, have seen a dramatic increase in popularity due to several recent documentaries highlighting the unique arcade culture. Examples include: High-Score, Doctor Kong, Chasing Ghosts, and The King of Kong. This resurgence of interest in classic arcade games has inspired younger generations to master these games; as well as renewed the older generation’s passion for the games of their youth.

Due to these events, Donkey Kong has become one of the most competitive arcade games of all time. Two of the most attractive aspects of the game are its difficulty in game play and its simplicity in concept. However, there are many other aspects of the game that people find fascinating. Achieving a high score on Donkey Kong is highly coveted among arcade game players. Additionally, the Donkey Kong community contains some of the

most well-known competitors of classic arcade gaming. In 2011 Donkey Kong was the heart of one of the largest and most influential classic gaming events in history. The Kong Off gathered ten of the best Donkey Kong players in the world to compete head to head. Each player was allowed to play on their own dedicated and restored Donkey Kong machine in order to win the \$1,000 prize. The following year there was held a “Kong Off 2” in Denver. This event hosted even more top Donkey Kong players and handed out even greater prizes to the top finishers. It is projected that public competitions of this nature will continue in the future for many more years.

The Purpose of this work

Since Donkey Kong’s popularity is on the rise, with many newcomers flocking to the game each year, the need for detailed instruction on how to play the game has become apparent. Even though many other manuals and walk-through explanations have been written, these have become outdated in the light of newer insights and techniques that have more recently been developed. The goal in this manual has been to gather all the information needed to reach a Donkey Kong Killscreen that is available (and can be found in various locations on the internet) into one single source. Additionally, it has been desired for someone to compile this content and explain it in a way that would truly help someone master the game to a high level.

Description of the Manual

Setup and Style

The writing style of the beginner’s manual has the newest players in mind. The text will be readable and outlined in logical order. Many details which do not have immediate effect upon game play will be relegated to a more thorough presentation in the forthcoming ‘expert’ manual. In this present manual, you will find summaries and listing of pertinent facts, but when it has seemed beneficial, we have included even more descriptions explaining the skills, methods, and strategies necessary for mastering the game to a Killscreen level.

The structure of this manual has been designed so that you could easily read through the entire text. We have also created a table of contents so that you may reference any aspect of it at any time. Occasionally you will find that we will repeat certain concepts. We repeat ourselves for emphasis and because of the importance. If one has a question about the game, then we want to be able to address that question in the text.

Terminology

Occasionally a Donkey Kong player will learn the game in seclusion or in isolated communities. When this happens certain language about the game develops differently than it would have under other influences. As a result, there exists a variety of labels, terms, and expressions to describe the same game. For example, one may use the terms, 'level', 'screen', 'stage', or 'board' to refer to the same thing. Likewise, one may prefer to say 'conveyor' instead 'pie factory' or likes to say 'elevators' instead of 'springs'. This manual recognizes the legitimacy of all the language which has developed over the years. However, for the sake of simplicity and uniformity, this manual has chosen specific terms and has tried to stay consistent with our usage. Whichever language you may prefer, we hope that you will be able to follow the meaning of the text.

Thanks

Corey:

Mitchell:

Vincent:

Jeremy:

All:

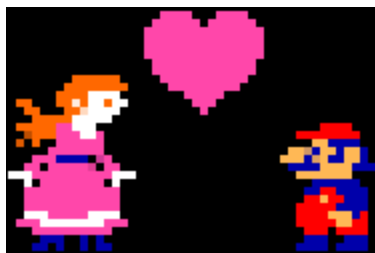


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The Basic Introduction

The Characters:



Jumpman: Often referred to as Mario, Jumpman is the hero who seeks to rescue his beloved, Pauline. This is the character which is directly controlled by the player.



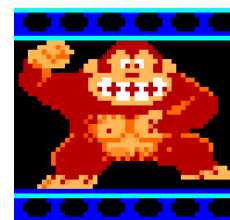
Pauline: The damsel in distress, who was originally referred to as The Lady, is held captive by Donkey Kong at the top of a construction site of varying forms.



Donkey Kong: A love-struck, angry gorilla who has taken Pauline captive. He seeks to prevent Jumpman from taking her back.

The Obstacles and Enemies

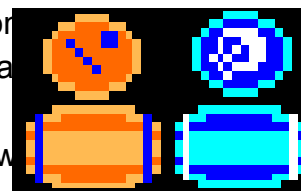
Donkey Kong: Donkey Kong, or simply “Kong”, is the main antagonist in the game. In all of the different stage types, DK is positioned at the top of the screen. In some stages he throws barrels, in others he causes conveyors to switch directions, while in others he is a merely a deadly obstacle.



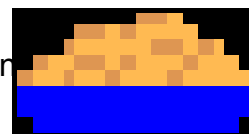
Fireballs/Firefoxes: Fireballs and firefoxes are generally randomly-moving enemies that travel horizontally across any open flooring when they are not freezing, ascending vertically at will, or descending vertically (under certain conditions). Contact with a fireball/firefox results in the loss of a life. Avoiding fireballs is the usual method of survival, however, jumping them may be required if no other possibilities exist. Only a hammer smash can extinguish these enemies. Even then, fireballs/firefoxes will eventually re-spawn on the Conveyor and Rivet stages a short time after having been smashed. Fortunately, no more than five fireballs/firefoxes will ever assault Jumpman on any given stage. Whenever Jumpman wields a hammer, fireballs/firefoxes will turn blue. The only differences between fireballs and firefoxes are their sprites and the fact that fireballs have slightly bigger hitboxes.



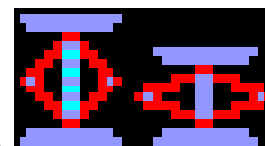
Barrels: A Barrel is an obstacle which is used by Donkey Kong on the Barrel stage. Barrels are either rolled down the girders (normal rolling barrels) or are thrown down (wild barrels). If Jumpman is positioned on a girder higher than any brown, rolling barrels below him, those barrels will roll off the screen as soon as they reach the end of the girder they are on. Additionally, once these same sorts of brown, rolling barrels reach the end of the girder Jumpman is on, they will, likewise, roll off the screen. Blue barrels, however, will always make their way towards the bottom of the screen. Both types of colored barrels are able to also roll down both broken or unbroken ladders. Making contact with a barrel kills Jumpman. Barrels can be jumped, steered down a ladder, bypassed, or smashed with a hammer while on one's journey to rescue Pauline.



Cement Trays/Pies: Cement Trays (also commonly known as "pies") are obstacles that appear from both the left and right side of the screen on the Conveyor Stage (which is also known as either the "Cement or Pie Factory"). Their motion is dictated by the direction of the conveyor on which they are located. Trays can be jumped or smashed with a hammer. Any contact with trays is fatal to Jumpman.



Springs: Springs (also sometimes called "jacks") are obstacles that appear on the Elevator Stage (also known as the "Spring Stage"). Springs appear from the top-leftmost area of the screen, bouncing across the top girder until they fall off the edge on the right-center side of the screen. Springs cannot be destroyed and should be avoided. Even though it is possible to jump a spring for 100 points, this is extremely risky and has absolutely no practical application. Contact with the springs kills Jumpman.



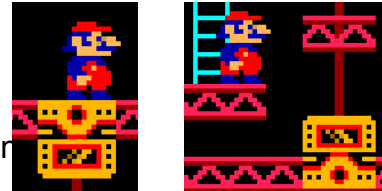
Oil Can: The oil can appears on the Barrel and Conveyor stages. Jumpman can walk behind the can on the Barrel stage, but jumping into the top is fatal. On the Conveyor stage, Jumpman can walk under and jump over the can but falling into the top of the oil can is fatal. Fireballs spawn from the can at the beginning of the Conveyor stage and re-spawn from that same can upon being smash. On the Barrel stage, a fireball will spawn from the oil can (up to a maximum of 5 on the screen at one time) whenever a blue barrel comes into contact with it.



Heights: Jumpman can lose a life if he falls off an edge or jumps onto a platform from too high of a location. Essentially, Jumpman is

only allowed to fall a net distance of approximately his own height before it causes the player to lose a life. This distance is measured from where he last touches the ground until wherever he lands. Because of this, one can technically 'fall' further than Jumpman's own height if the fall is preceded by a jump (measuring it from the apex of the jump). The most frequent maneuver where this sort of "falling rule" might come into play for the beginner is emergency wall-jumps or jumping off of an elevator.

Pulleys: The yellow elevator pulley mechanisms are located at the top and bottom of the elevators. Coming in contact with one of these pulleys while on an elevator, or jumping and hitting your head on them, will cause Jumpman to die. However, walking across them up near Donkey Kong is completely harmless.



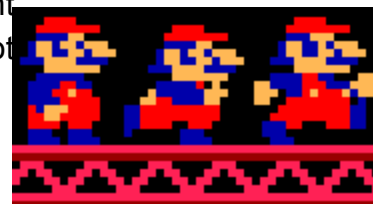
The Bonus Timer: Though the Bonus Timer can be used to gain points, if the timer ever runs out, Jumpman will die. The amount of allowed time to complete the stage is variable, depending on the level and type of stage, however, if the timer reads '000' for a long enough time (~4.2833 seconds), it is fatal. However, Jumpman can't die due to the timer expiring while he is in the air. Though, if it has run out (read '000' for more than 4.2833 seconds), he will die immediately upon landing.



Jumpman's Abilities

In order to master Donkey Kong, it is important know Jumpman's various abilities and their limits. While these abilities are straightforward and easily understood, the use of them in particular situations requires knowledge, experience, and quick reaction time. These skills will be important to learn, since the player is only given a maximum of 4 lives (3 to begin with, and one earned with enough points).

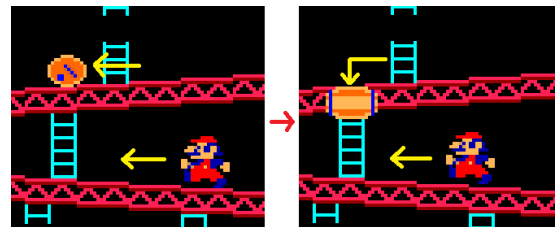
Running: Jumpman can only run horizontally. Left and right inputs will change Jumpman's horizontal position if he is not on a ladder or on the side of a screen. Although there is no walking in Donkey Kong, one can include pauses or long jumps to slow down Jumpman's horizontal movement.



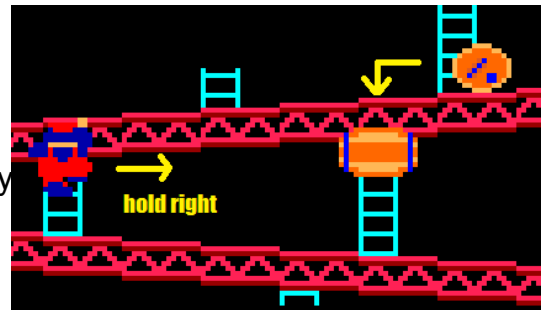
Pauses are helpful when you are trying to intentionally *not* steer rolling barrels. By timing your pauses when barrels start to cross over the top of a ladders, you will keep from accidentally steering them. Running is actually a bit faster than successive long jumps since it takes a few frames per jump for Jumpman to recover from landing. Jumpman cannot outrun rolling barrels.

Steering: Technically an *effect* of Jumpman's x-axis location and ability to try to run left or right , steering is a form of control that the player can have over rolling and falling barrels.

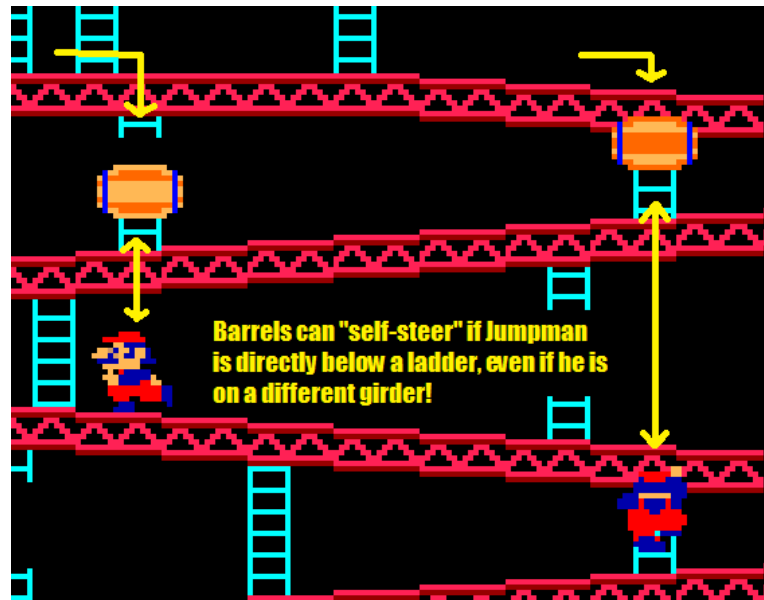
Rolling Barrels: For rolling barrels, Jumpman is able to have a certain percentage of control for steering barrels down both broken and unbroken ladders. By running towards a particular ladder while a barrel is passing over top of it (and while Jumpman is lower on the screen than said barrel), there is a percent chance that the barrel will go down the ladder. As the game progresses, the chance that one will successfully cause the barrel to descend the intended ladder will increase. What exact percent of control the player will have is dictated by the Internal Difficulty and will be dealt with in more detail later. However, barrels may also descend on their own, without being steered, a certain percentage of the time.



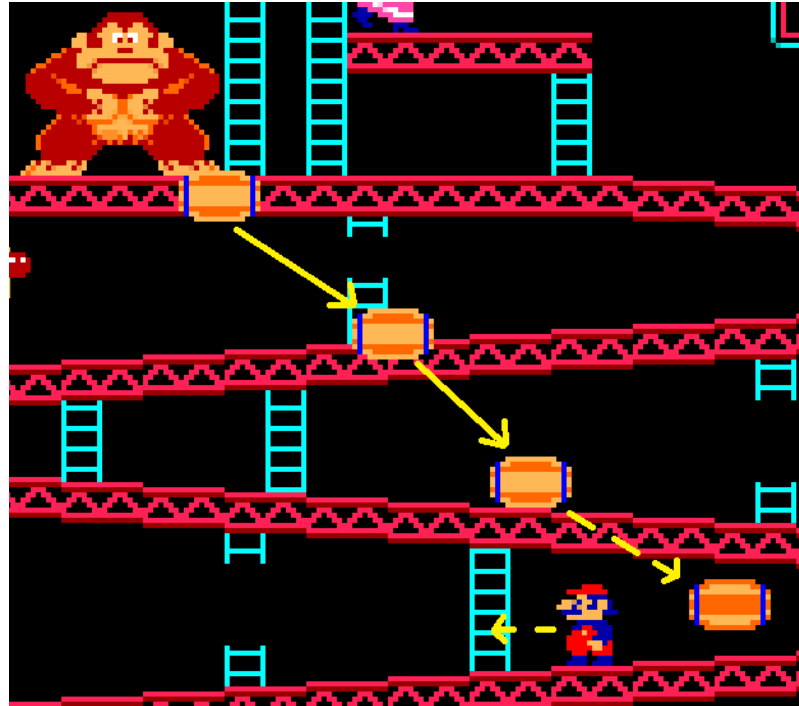
It is also possible to try to steer barrels without running at all. One way to do this is to trick the game into thinking Jumpman is running by pressing a direction toward the specific ladder one wants to steer down while either sitting on a ladder or also while airborne during a jump.



Additionally, Jumpman is able to steer down ladders if his x-axis is equal to that of the ladder he is trying to steer barrels down (again, assuming he is below the top of said ladder). This can be done by either waiting at the base of a ladder, being on the ladder, or even being directly below a ladder on a lower down girder.



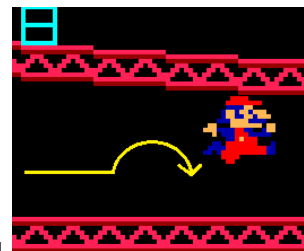
Wild Barrels: Jumpman is also able to steer certain types of wild barrels based upon his x-axis location. Certain types of wild barrels try to head directly at Jumpman, while others aim for a location half the remaining distance to him. What types of wild barrels heat-seek Jumpman, and in what way, will be discussed further under the ‘Internal Difficulty’ section, but the simple way to steer barrels is by switching to the desired side of the wild barrel one wants the wild barrel to go just before it hits a girder above Jumpman -since wild barrels redirect upon each bounce off of the girders.



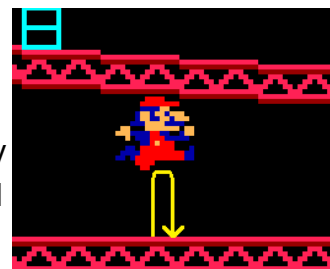
Stay to the right and move left after the wild barrel bounces directly above you!

Jumping: In Donkey Kong, there are several different types of jumps. Each of these jump types will be used to jump over various obstacles which you will face during the course of a game. There are four different jump types; all of which are very useful depending on the situation.

Front Jump: The front jump is primarily used to jump long distances. Objects such as open rivet holes and pies must be jumped in this manner. The front jump is also the main jump used to jump over multiple barrels, fireballs, or from platform to platform on the Elevator Stage. Executing the front jump is as simple as pressing the jump button at the same time as or shortly after holding either left or right on the joystick.

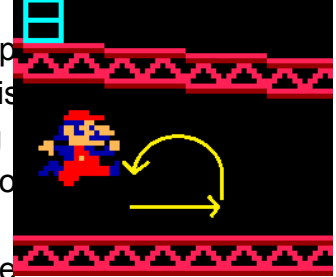


Standing Jump: The standing jump is primarily used when you don't want to move your horizontal position. This is useful when moving might potentially place oneself in harm's way, or inadvertently control barrels by the right/left input. The standing jump is most often used on the barrel screen for jumping single or close-grouped



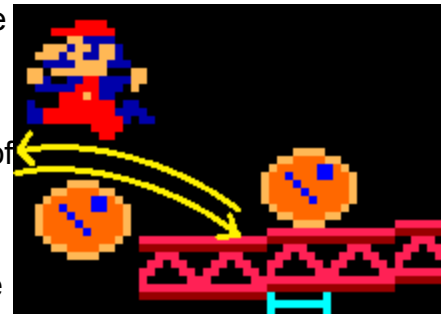
barrels. This jump merely requires the player to press the jump button while not holding any direction (holding up or down while jumping does not affect the jump). Although pressing left or right while in the air will not affect your horizontal position it will increase the potential for the game to award you points (more on this can be found under the 'Getting Points' section), as well as an opportunity to steer down rolling barrels.

Back Jump: The back jump will definitely save your life several times during the course of a game. Once the jump is mastered it will be extremely useful. Though this jump is just like a front jump, it is distinguished from it by jumping in the *same* direction as a rolling barrel. This allows you to jump a barrel that is already too close to perform a



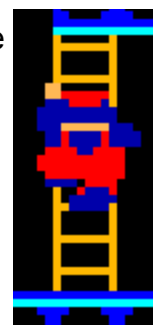
standing or front jump without getting hit mid-jump, or else better prepare you to jump later barrels in a tough combination. This jump is performed by waiting until the last moment before a barrel hits you, and then moving with the barrel while jumping. If executed correctly you will land safely, just barely, on the other side of the barrel. This jump is the hardest to learn but probably the most useful for overcoming difficult combinations of barrels that are heading your way.

Wall-Jump: On each stage type in Donkey Kong there are invisible walls. The very edge of any screen, on both the left and the right sides, are the main invisible walls. However, there are also invisible walls in front of Kong on both the Barrel and Elevator Stages. One may bounce off these walls if they jump into them, and depending on the different take-off positions used, one may cause Jumpman to bounce of these walls in many

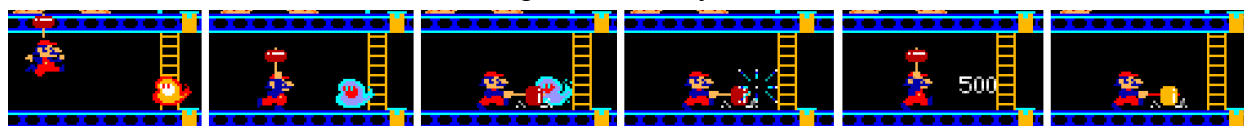
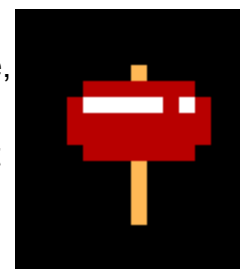


different types of arcs. Once you master the many different types of wall-jumps, you will be able to jump over combinations of barrels which would be impossible to do with any other type of jump. This is most applicable when the group of barrels is too large for the front jump and there is no safe ladder to climb up or down in order to avoid them. Another use is simply when you are just out of room to clear the next immediate barrel in any other way (such as when a fireball is just on the other side of a barrel group). Wall-jumps can also be used as a way to temporarily avoid charging fireballs -though they do not guarantee 100% survival in this situation, or that the problem won't be repeated upon landing.

Climbing: “How high can you get?” Jumpman’s ability to climb ladders is one of only 3 ways (but is the *main* way) in the game to ascend to new vertical heights. Jumpman can ascend and descend ladders by an up or down input when relatively close to the ends of a ladder. Because of this, it will require some time to learn how one may move onto and off of them efficiently. Being as there is actually a small range at the top and at the bottom of ladders from where Jumpman is able to get onto a ladder, Jumpman does not need to be directly at the top or bottom to utilize them. Much like turning in Pac-Man, where you can save lots of time by ‘cornering’ and getting an up or down input at the very earliest, this allows for the player to crucial time when trying to outrun or avoid enemies/obstacles. As a note, though Jumpman may climb both up and down unbroken ladders, Jumpman can not go down broken ladders starting at the top -yet he may ascend them to a certain height when starting from their bottom end. This may be useful, every now and then, in avoiding an un-jumpable set of barrels or a fireball.



Using the Hammer: Another ability of Jumpman is the ability to grab and wield hammers. To grab any of the various hammers in the game, one needs to jump up so that Jumpman’s hitbox makes contact with that of the hammer’s hitbox. These hitboxes can be quite touchy, so it is best to jump right at the middle of the hammer. Upon landing, the hammer will alternate between a forward and upright position in the direction that Jumpman is facing. Any barrel or fireball that makes contact with the head of the hammer will be smashed, briefly freezing the rest of the gameplay as the object/enemy is obliterated. One needs to be careful, though, as the hammer is not a catch-all. For one thing, if the hammer is used while Jumpman is all-out running, it is still possible for barrels and fireballs/firefoxes to pass under the hammer and collide with Jumpman while the hammer is in its upright position. Similarly, if one is directly below a ladder that an enemy/obstacle is descending, it is also possible for them to hit Jumpman in the head while the hammer is still in the forward position. Lastly, hammers do not last forever. Depending upon how many smashes one gets, the hammer will disappear after about 10-20 seconds. You will know that the hammer is half way through its cycle because the head of the hammer begins to flash yellow.



Picking up Pauline's Items/Unplugging

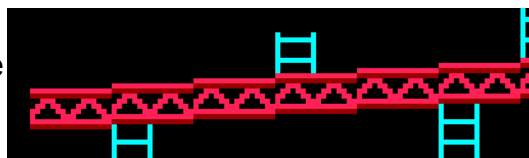
Rivets: Jumpman also has the ability to pass over various objects and thereby collect or remove them. In many of the stages are scattered various dropped items that belong



to Pauline (presumably she dropped them while being captured by Kong). There is a purse, a parasol, and a hat. If Jumpman walks over any of these items the player will be awarded points. How many points is determined by the current level and will be explained later under "Gaining Points". Also, if Jumpman either walks or jumps directly over any of the yellow rivets on the Rivet Screen, the rivet will be removed, leaving a small gap in the platform, and 100 points will be added to the score.

Structural Elements

Girder/Platforms: In Donkey Kong, there are various beams on which Jumpman may run. In the Barrel Stage these beams are long, and, for the most part, slanted at an angle. These beams are commonly referred to as girders. Whenever the



beams are shorter and disconnected (such as on the Elevator Board), they are sometimes called platforms. Girders and platforms primarily facilitate Jumpman's horizontal motion within the game.

Rivets: Rivets are the small yellow pegs only found on the Rivet Stage. Rivets serve the purpose of bridging the gap between two close platforms.

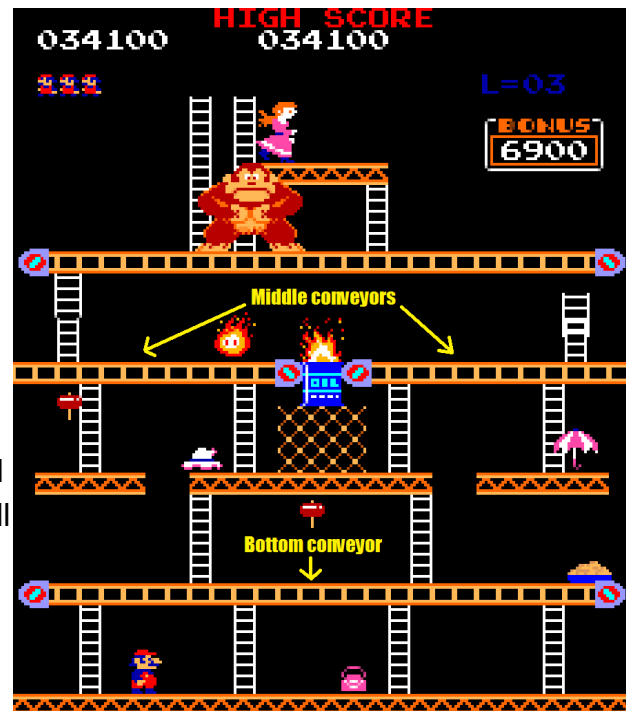


Whenever directly walked or jumped over, rivets will disappear leaving a small gap where they once were. Once removed, Jumpman will be able to fall to his death down the gap that remains.

Conveyors: In Donkey Kong there two main types of conveyors. These conveyors only appear on the Conveyor Stage. Conveyors move both Jumpman and cement trays along in the direction they are heading. However, the direction of the conveyor has no effect fireballs.

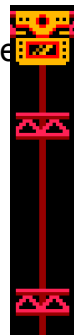
Bottom Conveyor: The bottom conveyor in the Cement Factory Stage spans the entire length of the screen. The bottom conveyor only ever changes direction when Kong reaches the far left side of the screen.

Middle Conveyors: The top two conveyors on the Conveyor Stage are shorter and span about half the length of the screen and are divided by an oil drum. These conveyors will always move towards the oil can when Jumpman's vertical position is at least halfway up the ladder to the platform right above the bottom conveyor. While Jumpman is below this vertical position the middle conveyors change direction towards and then away from the oil can whenever Kong passes over the oil can. However, they will always immediately change direction back towards the oil can as soon as Jumpman reaches the required vertical position.



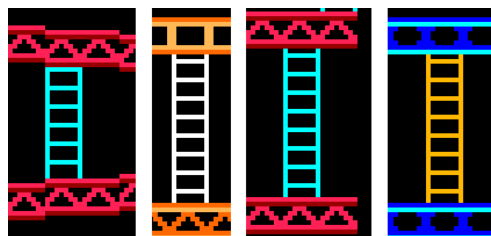
Top Conveyor: This conveyor is positioned at the top of the screen. This conveyor is actually unuseable by Jumpman, however, it may be reached by the fireballs. Kong rides this conveyor during the entirety of the stage.

Elevators: Another type of structure found in Donkey Kong is the elevator. On the Elevator Stage there are two elevators: An 'Up Elevator', and a 'Down Elevator'. These structures are essentially vertically moving platforms. These platforms are only a few Jumpman-widths wide. They also move at a constant rate and are evenly spaced, appearing or disappearing at the tops and bottoms of their respective elevators where there are large (and lethal) pulleys.



Ladders: In Donkey Kong there are three different kinds of ladders. Though Jumpman can only completely climb two of the types, all of them have their own functions in the game and can, in their own way, be used to the player's advantage. Ladders primarily facilitate Jumpman's vertical motion in the game.

Unbroken Ladders: These are the "regular" ladders in the game. Jumpman can climb up and down them completely. These ladders represent 100% of the ladders on the Rivet and Elevator Stages (not including Kong's Ladders). Barrels can only travel down these ladders, while fireballs and firefoxes can travel both up and down them.



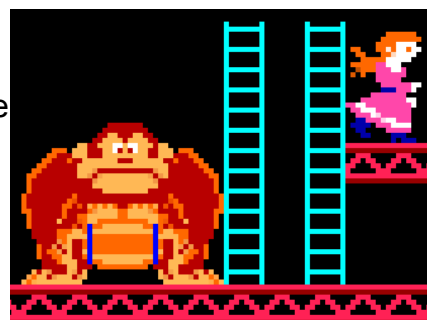
Broken Ladders: These ladders are the ones with a small gap between their top and bottom sections. Jumpman can climb up these ladders a little bit, but not completely. It is also important to note that Jumpman cannot climb down these ladders –not even partially. These ladders only appear on the Barrel Stages. Interestingly, fireballs can use these ladders to climb both up and down.



Retracting Ladders: These ladders only appear on the Conveyor Stage, and are actually the ladders that lead you to the end of that stage. There are two of these ladders on this stage: One on the top left and one on the top right. What makes these ladders unique, as compared to other ladders, is the fact that they extend and retract. The ladders may remain retracted for either a brief moment or several seconds (depending upon the random elements in the programming) once it reaches the bottom of its retraction. The up and down movements of the ladders are always the same, as is the time that the ladder remains extended to the top. In general, this process is usually about 7 or 8 seconds. Fireballs can go up these ladders regardless of whether or not they are extended, but they never go down them. Jumpman can only climb these ladders completely while they are fully extended.

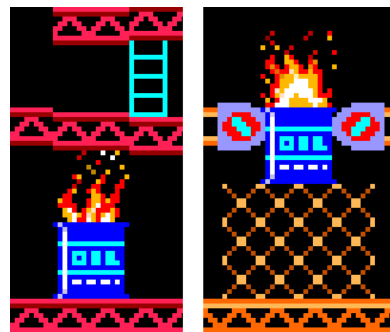


Kong's Double Ladders: The last distinct type of ladder is the double ladders that are positioned at the top of all but the Rivet Stage. These ladders are unusable by the player (an invisible wall blocks



them from the player on the Barrel and Spring Stages, while they are simply unreachable on the Conveyor Stage), but they are used by Donkey Kong during the cutscenes as he climbs them, grabs Pauline just before Jumpman can rescue her, and promptly whisks her away to the next screen.

Oil Can: Oil cans appear only within the Barrel and Conveyor Stages. On the Barrel Stage, whenever a blue barrel reaches the oil can at the bottom of the screen it is changed into a fireball -so long as there is not already a total of 5 fireballs on the screen. However, when regular barrels roll into the oil can, they merely disappear. An oil can is also found on the fourth platform from the bottom of the Conveyor Stage. Its function in this stage is to make fireballs appear on the screen both at the beginning of the

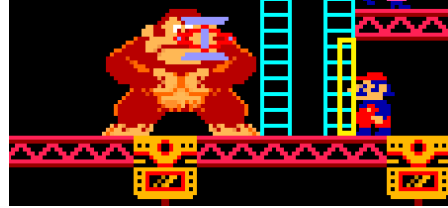
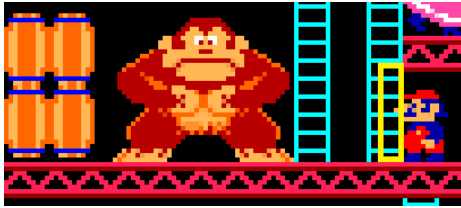


level and throughout the level -the initial number depending on whatever level of the game you are on. Also, cement trays moving on the fourth platform may fall into this oil can due to the middle conveyor. The oil can on the Conveyor Stage also has fire burning out of its top for added effect. You can actually jump over this oil can, however, there's no real purpose to doing so since it usually involves too much risk for no real reward. The cage below the Oil Can on the Conveyor Stage is purely cosmetic and poses no threat to Jumpman.

Invisible Walls: In Donkey Kong there are quite a few places with invisible walls. They appear within every stage. It is good to know where they are in case you ever need to use them for wall-jumping.

Side Walls: On every stage there are invisible walls located at the extreme left and right edges of the screen. When girders butt right up against them, one may walk into these invisible walls. However, sometimes you can only get to these walls by jumping at them and bouncing off of them - since many times platforms/girders are not right up against these walls.

Walls next to Donkey Kong: There are also invisible walls blocking off Donkey Kong on the Barrel and Elevator Stages. These walls are located only a short distance to the right of Donkey Kong in these places. These walls keep Jumpman from being able to reach Donkey Kong. However, on the Rivet Stage there are no walls, so if you do touch Donkey Kong you will die. Realistically, the invisible walls near Donkey Kong don't really have much use for the player. You'll probably never need to use them in an sort of serious game.



Getting Points

The Bonus Timer: The Bonus Timer not only serves as the time limit one has for completing the level, but also as a source of acquiring points. As many points as are left on the timer once a stage is completed are added to one's total score as they move onto the next stage.

Starting Time: The amount of time that is initially on the Bonus Timer is determined by the level. The respective initial bonus time is as follows:

- L1: 5000 Bonus
- L2: 6000 Bonus
- L3: 7000 Bonus
- L4: 8000 Bonus

Speed: Though the timer may increase in the total time that it initially gives you (based upon what level one is on), it also increases in countdown speed up until Level 5 on all non-barrel boards. The approximate real-time speed of the timer ticks for non-barrel boards on levels 1, 2, 3, 4, and 5+, respectively, is as follows:

- L1: 2 seconds per tick (120 frames)
- L2: 1.667 seconds per tick (100 frames)
- L3: 1.33 seconds per tick (80 frames)
- L4+: 1 second per tick (60 frames)

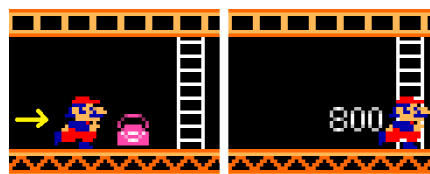


For barrel boards, the timer is tied to when Donkey Kong releases his barrels. His barrel releases have a variable range to them, so the length of time one has to complete the stage is not always the same. However, as the levels increase, the general rate of Kong's releases gets faster.

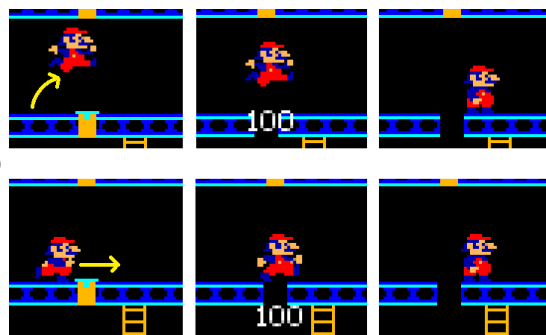
It should also be noted that once the time reaches '000', the length of time before Jumpman dies is the same on all non-barrel levels as well. You have 257 frames (~4.2833 seconds) to finish the level at that point. However, jumping will extend one's life until Jumpman lands, as one cannot die while Juman is in the air.

Crossing/Walking Over Objects: One way to gain points in Donkey Kong is to walk or cross over certain objects. There are only a few things in the game to which this applies.

Pauline's Items: Part of the narrative of the gameplay is the idea that Pauline has dropped many of her items due to her being taken captive by Donkey Kong. It is possible for Jumpman to pick up these items on his way to rescuing her, but doing so is not necessary in order to complete any of the screens. The items are a purse, a parasol, and a hat. Not every screen has the same number of items, nor are they worth the same amount of points on each level. On Level 1 each item is worth 300 points. On Level 2 the items are worth 500. For levels 3 and up all the items are individually worth 800 points. To pick up these items, simply walk over them.



Rivets: Rivets only appear on the Rivet Stage. To gain points from rivets, they need to be unplugged from the girder. To do this, Jumpman needs to cross over above the

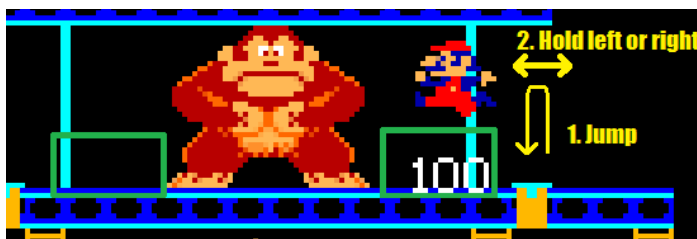


location of each specific rivet while on the same platform as the rivet. This can be done by either walking or jumping directly over them. Each rivet unplugged gains the player 100 points.

Jumping Over/Leeching: In Donkey Kong, one of the main ways of gaining points is by jumping over enemies/obstacles. One may also jump close enough to enemies/obstacles that the game still registers Jumpman as having jumped over them. This is called 'Leeching'. The ability to leech points off of things can be increased by holding a left/right direction in the air. This works because the programming of the game is designed to scan a wider range under Jumpman when it thinks he is jumping left or right. This left or right input gets checked while he is at the apex of his jump. Below are the points gained by jumping/leeching various objects or enemies.

Leeching/Taunting Kong:

On the Rivet Stage, it is possible to gain points by jumping next to Donkey Kong. This is often called 'Taunting' because it looks almost as if the player is mocking Kong,

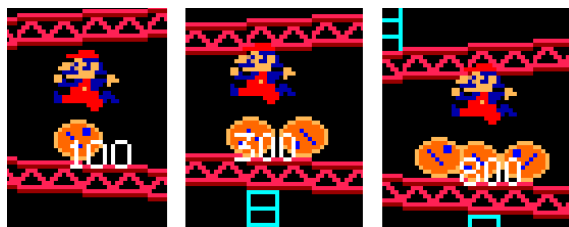


just out of his reach. However, this Taunting is much easier to do if the player is holding a left or right direction while at the apex of the jump (since this extends out the span underneath Jumpman where the programming searches for enemies). Obviously, it is impossible to jump over Kong, so leeching is the only means of gaining these sorts of points. Leeching Kong only gives you 100 points per jump, so it is most profitable on the lower levels. The Bonus Timer counts down increasingly faster later in the game thereby reducing the amount of points that would be gained by taunting. There are no worries about the blue poles to either side of Kong, as they are merely cosmetic background. They won't ever hurt you. Just be careful to not accidentally jump into Kong!

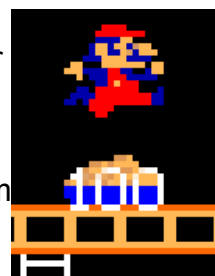
Barrels: Jumping over barrels is probably the most iconic way of scoring points in Donkey Kong. Barrels only appear on the barrel screen and can be jumped over one at a time as well as in groups.

Jumping one barrel scores 100 points.

Jumping two barrels at once is worth 300 points. Lastly, jumping three or more barrels at one time is 500 points (the game displays '800' points, but this is, unfortunately, a programming error).



Cement Trays/Pies: Cement trays (or “pies”) can be jumped over or leached for 100 points. However, never try jumping over more than 1 cement tray at a time, as it is very difficult and rare, as well as it is still only worth 100 points. Trays can be leached by either jumping towards them or else standing quite near them and performing a standing jump (both done while the tray/pie is moving away from Jumpman on the conveyor belt).



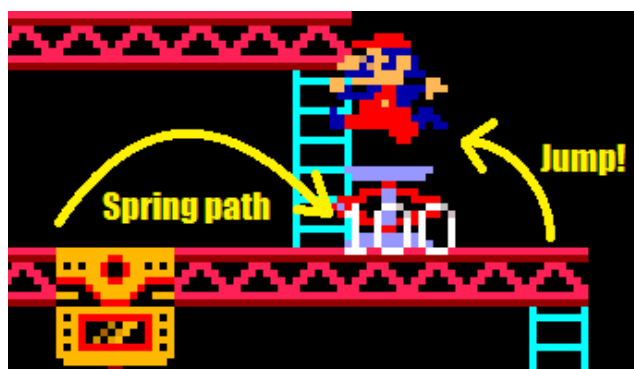
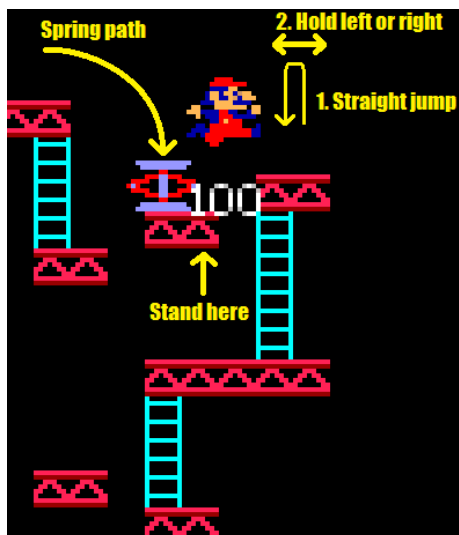
Fireballs/Firefoxes: Fireballs and firefoxes can be jumped or leached as well. Jumping or leaching any number of fireballs/firefoxes at one time is worth 100 points. Simply put, any number of fireballs/firefoxes jumped/leached at one time is treated as just one object -much like a single barrel.

However, if a fireball(s) is jumped/leached in concordance with a barrel or barrels, it is added to the total number of barrels and is scored in the same exact way barrels are scored: If there is 1 barrel with a fireball(s), it is treated like 2 barrels and is worth 300 points; 2+ barrels with a fireball(s) is treated like 3+ barrels and worth 500 points (again, the incorrect '800' is displayed -just like it is wrongly displayed for 3+ barrels). However, jumping fireballs/firefoxes is very risky, and is not advised for beginners -let alone most experts. (jeremy, dean said that the points off fireballs was different depending upon the screen... can you confirm this?) What do you mean? I'm pretty sure jumping multiple objects only gives you more than 300 points on the barrel boards. i need to discuss this to make sure i understand

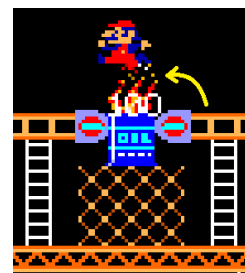


Springs: Springs only appear on the Elevator Stage. Though they can be jumped for 100 points each, it is much more common to see them leached. Not even expert players typically attempt to jump springs, since it is such a difficult feat to achieve

safely. However, even leeching springs is reserved for players that are playing to score maximum points, so it is not suggested for the beginner who is simply trying to get to the Killscreen.



Oil Can: Only the oil can found on the Conveyor Stage can be leeched and jumped over. One scores 100 points for each time the oil can is jumped/leached. However, since this is in an area of the screen that is typically very congested by fireballs and trays, it is not advised that one use this as a tactic for gaining points.



Smashing With the Hammer: Another interesting way to score points in Donkey Kong is to smash enemies and obstacles with the various hammers found throughout the game. Hammers appear on each stage type except for the Elevator Stage. Be careful wielding hammers though, as they only last for a short time frame, nor are they a catch-all if you are running at objects at full speed!

Barrels: As you will notice, there are two types of barrel colors: Brown and blue. There are more brown barrels than blue barrels, as Donkey Kong generally only throws/rolls 1 blue barrel every 8th barrel (however, sometimes he will skip a blue barrel all together)[check this](#). Though the barrels are scored the same when they are jumped or leached, they award different points when being smashed with a hammer.

Brown Barrels: This type of barrel will always award 300 points when

smashed.

Blue Barrels: These rarer barrels award either 300, 500, or 800 points when smashed. The points awarded for these smashes are determined by certain internal counters in the programming, so what points are gained is unable to be controlled by the player. However, the points earned off of blue barrel smashes are distributed according to probabilistic averages: About 25% of the time you will receive 300 points, about 25% of the time they will award 800 points, and about 50% of the time you'll get 500 points. Therefore, the expected average value of a blue barrel smash is 525 points.

Fireballs/Firefoxes: Fireballs and firefoxes also award points when smashed. Like blue barrels, these enemies also award either 300, 500, or 800 points due to random counters in the programming that are, likewise, beyond the player's control. However, the probabilistic averages are significantly different. For fireballs/firefoxes there is a 50% chance of getting 300 points, 33% chance of getting 500 points, and a 17% chance of getting 800 points. Therefore, the expected average value of a fireball/firefox smash is 450 points.

Cement Trays/Pies: Trays/pies, in general, follow the same probability pattern as blue barrels. There is a 25% chance for 300 points, a 50% chance for 500 points, and a 25% chance for 800 points. There are certain situations in which a pie will *a/ways* be 300 points, but that is beyond the scope of this manual and cannot be controlled by the player.

The Internal Difficulty

What is It?: One of the most important elements of Donkey Kong is what is known as the "Internal Difficulty" counters. These counters are a crucial aspect of the Donkey Kong code that dictate many different aspects of the game that pertain to the game's difficulty. As these counters increase, the game generally gets more and more difficult. In total, there are 5 levels to the Internal Difficulty counters -Level 1 being the easiest, and Level 5 hardest. There are two ways in which these counters increase:

Increase by Level: The Internal Difficulty defaults to the number of the current level. So, for levels 1, 2, 3, 4, and 5, the default Internal Difficulty is 1, 2, 3, 4, and 5, respectively. If one is on a level greater than 5, then the counter is maxed and simply remains at its highest setting of 5 throughout the entire stage.

Increase by Time: While a stage is being played, the counter also increases by one about every 34 real-time seconds. This allows a player to estimate the the current Internal Difficulty while playing on any of the levels where the Internal Difficulty changes in-stage (levels 1- 4). This is most important for knowing when one should be on the lookout for the more difficult type of wild barrels (which is Type 2!). Below is a helpful chart for estimating the first change the Internal Difficulty on the Barrel Stage (which is the most important change, as well as the most important stage on which knowing when a change in the Internal Difficulty will take place matters the most):

Internal Difficulty Benchmarks		
For Barrel Boards Only		
	Just Running Boards?	Did You Grab a Hammer?
Level 1	3300	3600
Level 2	4100	4500
Level 3	5000	5500
Level 4	6000	6400
These Benchmarks use the assumption that the player is attempting to finish the board as fast as possible, and therefore will only need to worry about the 1st change in difficulty.		

How it affects the game: There are also three main ways that this increase in Internal Difficulty affects the game: 1) It increases overall fireball/firefox speed, 2) it makes rolling barrels more steerable, and 3) it dictates the type of wild barrels Donkey Kong can throw.

Fireballs/Firefoxes: As the Internal Difficulty increases, fireballs and firefoxes simply become a bit faster. This causes them to generally cover more distance before each time they turn around, as well as generally drift to the right a lot more quickly (since they move faster to the right than to the left). This also creates many situations on the later levels where Jumpman is less likely to outrun these enemies like he would be able to on the earlier levels.

Wild Barrel Type				
Level	0 - 33	34 - 66	67 - 99	100+
1	Type 1	Type 1	Type 2	Type 2
2	Type 1	Type 2	Type 2	Type 3
3	Type 2	Type 2	Type 3	→
4	Type 2	Type 3	→	→
5	Type 3	→	→	→

Rolling Barrels: The Internal Difficulty also affects the steerability of the rolling barrels. When the Internal Difficulty is 1, the barrels will steer 25% of the time (when an actual input is made to try to steer them). When the Internal Difficulty is 2 or 3, the steerability will be 50%. Lastly, when the Internal Difficulty is 4 or higher, the steerability will be 75% of the time. This is the maximum level of steerability within the game. (remake graph and label both axis)

Barrel Control				
Level	0 - 33	34-66	67-99	100+
1	25%	50%	50%	75%
2	50%	50%	75%	75%
3	50%	75%	75%	75%
4+	75%	75%	75%	75%

Wild Barrels: Lastly, the Internal Difficulty's effect on wild barrels is slightly more sophisticated than it is for fireballs/firefoxes. For the 5 different levels of Internal Difficulty, there are 3 Types of wild barrels. The relationship between the levels of Internal Difficulty and the Types of wild barrels is as follows: (remake graph and label both axis)

Wild Barrel Type				
Level	0 - 33	34 - 66	67 - 99	100+
1	Type 1	Type 1	Type 2	Type 2
2	Type 1	Type 2	Type 2	Type 3
3	Type 2	Type 2	Type 3	→
4	Type 2	Type 3	→	→
5	Type 3	→	→	→

Internal Difficulties 1 and 2 = Type 1 Wild Barrels

Internal Difficulties 3 and 4 = Type 2 Wild Barrels

Internal Difficulty 5 = Type 3 Wild Barrels (convert to chart... I think corey has on he used in his videos... don hedges website may have one as well)

This change in wild barrel Types is important to know, as it changes the nature of the wild barrels that Kong will be able to throw. Type 1 wild barrels randomly bounce left and right without being influenced by Jumpman's position. Type 2 wild barrels bounce left and right and are programmed to bounce in Jumpman's direction (their potential to bounce right is twice their potential to bounce left, but if they bounce right, they must bounce right at least the distance of it's maximum potential to move left -i.e -x to 0 on the left,

and x to $2x$ on the right). Type 3 wild barrels always bounce towards Jumpman, however, they are programmed to traverse exactly half the remaining horizontal distance to Jumpman (as measured at the time of the bounce) between each bounce.

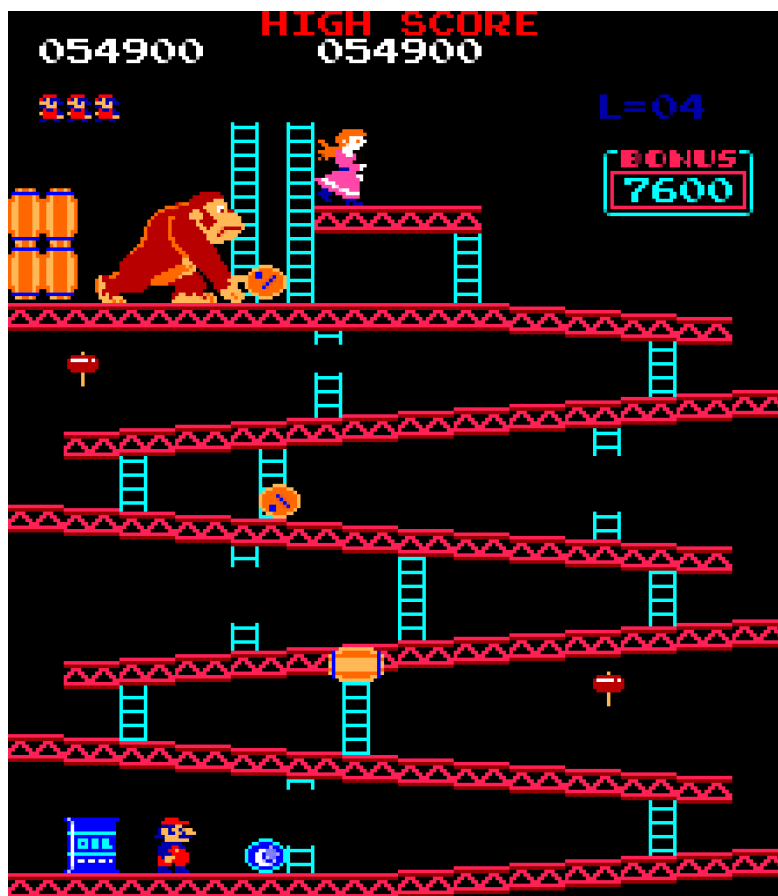
The Stage Types

The Barrel Stage

Enemies and Obstacles: Barrels, fireballs and the oil can. Blue barrels that reach this oil can turn into fireballs that are launched out of the top of the can and to the right (just so long as there are not already 5 fireballs on the screen).

Structure: The barrel screen consists of 6 slanted beams that are connected by either broken or unbroken ladders. Donkey Kong sits atop the tower of slanted girders, periodically casting barrels (either rolling them along the slanted beams, or throwing them, bouncing off each consecutive platform) until they reach the bottom of the screen. At the bottom left of the screen is an oil can.

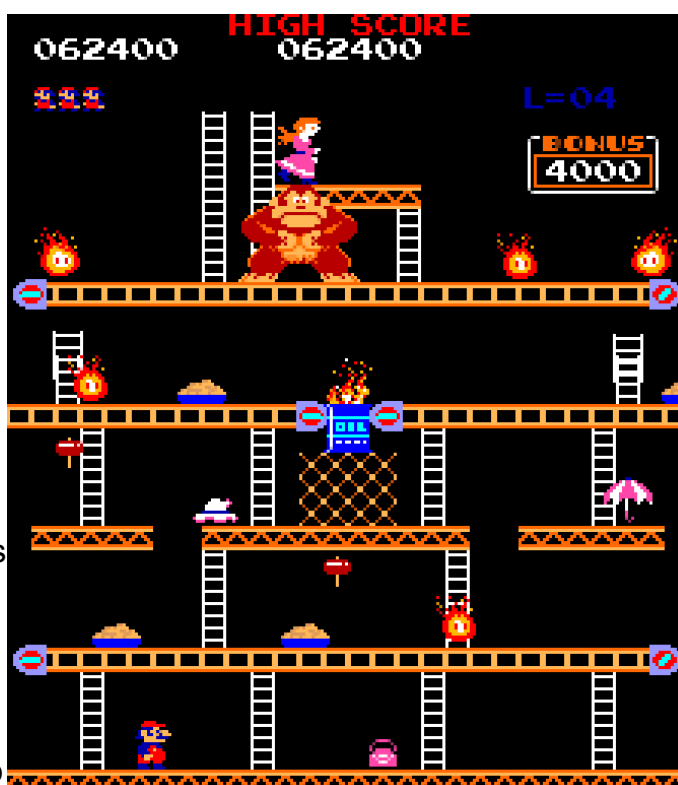
Goal: For a beginner, the goal of this stage is to safely climb up passed all of the girders until one reaches Pauline's platform at the top. After this, there is a short cut scene where Kong grabs Pauline and takes her to the next screen. However, if your overall goal is to get as many points as possible, then the way the player will play this level will end up being quite different. We will talk about this second type of play (which is called 'point pressing') later.



The Conveyor Stage

Enemies and Obstacles: Cement trays/pies, fireballs, and the oil can. Depending on which level you are on, 3 or more fireballs immediately spawn out of the oil can at the start of the screen. Over time, the remaining fireballs will also spawn (there's a maximum of 5 fireballs in total). Fireballs always spawn on the same side of the oil can as Jumpman. Cement trays/pies ride on the conveyors, but do not move on their own. The bottom conveyor only changes direction whenever Donkey Kong reaches the left side of the screen. The two smaller conveyors in the middle only change direction when Jumpman is below a certain vertical position on the screen, and, in which case, will change direction when Kong passes over the oil can. For practical purposes, just note that by the time Jumpman is more than halfway up the ladders connecting the bottom conveyor to middle platform, these middle conveyors will always be moving towards the oil can.

Structure: In this stage there are a bottom platform, three middle platforms, and four conveyors. The bottom conveyor moves one direction until Donkey Kong reaches the left side of the screen - which is when this conveyor changes direction. The two middle and smaller conveyors always run towards the oil can in the center of the screen by the time Jumpman uses them. Both the platforms and conveyors are connected by unbroken ladders. This is also the only stage with retracting ladders. These two unique ladders are found on each upper side of the stage and connect to the very top conveyor.



Goal: The goal of this stage is to climb all the way up to the last platform, where Donkey Kong is located. Doing this immediately finishes the stage. Important to know: You do NOT need to climb to Pauline's platform to finish the level. Only reaching the top conveyor (where Kong is located) is necessary!

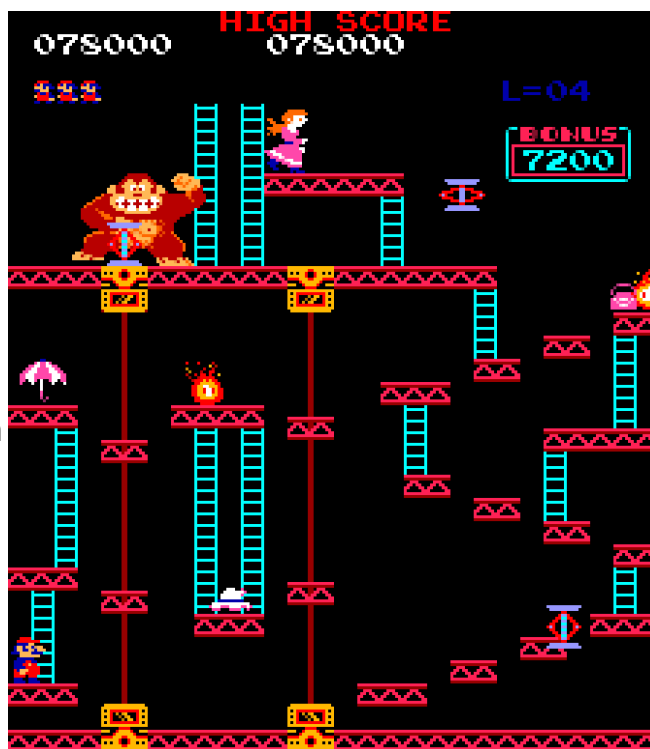
The Elevator Stage

Enemies and Obstacles: Fireballs, springs and pulleys. Unlike other stages (which have

up to 5 fireballs), the elevator screen only has two fireballs. Also unlike other Stages, neither of these two fireballs spawn. These fireballs also remain 'trapped', so to speak, the entire time, on their own little 'islands' consisting of small platforms connected by ladders. There are also pulleys at the ends of each elevator that kill you if you touch them. Lastly, there are bouncing springs up top that block the last ladder, as well as fall off the top ledge down the right side of the screen.

Structure: Essentially, this stage is a bunch of smaller platforms, some of which are connected by ladders. You start this stage on your own little 'island' of ladders and platforms on the left side of the screen. This stage, however, also has a pair of elevators. The leftmost elevator rises, while the rightmost elevator descends. They are called the Up Elevator and Down Elevator, respectively. In-between these two elevators is an 'island' of two connected platforms which has a fireball on them. On the right half of the screen there are several ziz-zagged and tiered platforms leading up to the top and largest platform that has the bouncing springs. Falling springs obstruct the path up much of this area. On the top right is another 'island' of platforms with another fireball on it. Lastly, springs constantly enter from top-leftmost portion of the screen and bounce along the top platform three times until they then fall off the edge in the right side of the screen.

Goal: The goal of this stage is simply to traverse the elevators while bypassing the first fireball's island, going platform to platform, climbing ladders, until you reach the last one which leads to Pauline. Once you pass the ladder blocked by the bouncing springs, the stage is complete. Then, again, Donkey Kong takes Pauline to another stage.



The Rivet Stage

Enemies: On the Rivet Stage, the main enemies are firefoxes, however, one may also die by touching Donkey Kong. Firefoxes spawn on the opposite side of the screen as

Jumpman every few seconds -the frequency of which depends on the current level. There is a maximum of 5 fireballs that will eventually spawn.

Structure: This stage is structured with 4 different floors/tiers, each having 2 rivets, one on the left side and one on the right side -for a total of 8 rivets. Donkey Kong sits in the middle on the highest floor, blocking any direct path across this top floor.

Goal: Unlike other stages, the goal in this stage is not to reach the top. The goal here consists in removing all 8 of the rivets on screen. This can be done in any order. Once this is achieved, all the middle platforms collapse, causing Donkey Kong to fall as well. After this, Jumpman finally saves Pauline (at least in the cut-scene), but the game will continue onto another level.



Level Organization/Variation:

Japanese Version vs. American Version: Interestingly enough, for all its success in America, Donkey Kong was first released in Japan. It was sometime during the process when the game was being prepared to be released in North America that the actual order

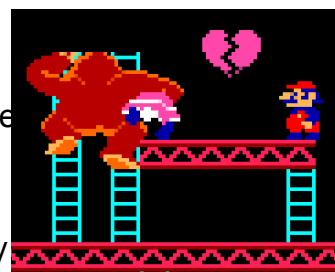
of the various board types (the Barrel, Rivet, Spring, and Conveyor Stages) was actually jumbled up a bit. The way the order ended up in the American release is actually quite nice, as it still yields the same storyline contained within the original Japanese version, while also adding an extra element of progression to the game. Instead of simply one of each stage type per level, the American version slowly adds more stages starting at the beginning all the way up to Level 5 –and even then, the pattern of stages for Level 5+ includes 2 more barrels screens per level than the Japanese version.



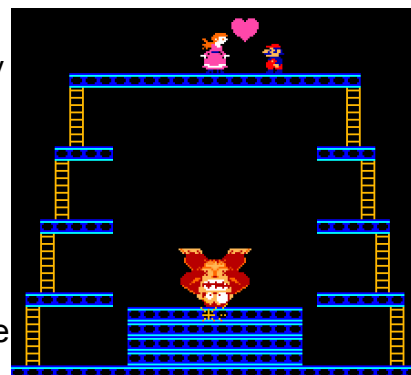
Cut-scenes: After each screen there is a short cut-scene, though, when you first start playing Donkey Kong, these cut-scenes might seem to be quite long. Sometimes these cut-scenes can be annoying for people who want to just rush quickly through the game. However, once a player increases in skill, these cut-scenes can give the player important time to ready his or herself for the next screen. Sometimes this allows for fixing recording equipment, adjusting one's chair/stool, or even taking a quick drink of water. Some even find this time helpful as a simply small break from the intense focus of the game. This becomes more helpful the deeper you are into the game. Over time, though, these cut-scenes do tend to feel shorter and shorter the more you play the game.

Barrel/Conveyor/Elevator Cut-scenes:

These three stages each have, in effect, the same type of cut-scene after them. Once Jumpman has reached the goal for each of these specific screens, the player ceases to have control over Jumpman and a short animation plays. For these three screen types Donkey Kong climbs the ladder next to Pauline (who sits at the top of the screen on each of these stages) and he promptly grabs her and takes her away to the next stage. Jumpman's heart is broken.



Rivet Cut-scene: While the other three screen types all have the same cut-scene where Donkey Kong is shown whisking Pauline away from Jumpman, in this cut-scene Jumpman is victorious! After Jumpman clears the last rivet all of the girders that Donkey Kong was standing upon come crashing down. Donkey Kong falls head first towards the bottom of the screen where he is knocked out while Pauline and Jumpman, both in love with one another, are reunited at the top of the screen. This cut-scene serves as a resolution to the game's storyline, which gets repeated for each new level.



Numbering System: The different levels and stages in Donkey Kong are referred to by a numbering system in the form of level number-stage number. This is used for quickly stating one's current location in the game. For example, the very first screen of the game is the first screen of Level 1, so it is called 1-1. If you are on the 3rd screen of Level 11, you would be on 11-3. Even though the order of the stages is constant after Level 4, the fact that there is more than just one Barrel Stage per level on levels 4 and higher means that there needs to be a quick way to differentiate between them.

Levels 1-4: In the beginning of a game, the order and number of screens per level changes. At first, the pattern and progression of these stages can be very confusing, but once you realize what is going on, it isn't too hard to understand and memorize. This order is important to know, as it allows you to mentally prepare for what is coming up on the next screen! As you will see, Level 1 starts out with 2 stages and it increases by one additional stage of a new type each level. By Level 4, the only extra screens added are barrel screens, as each of the other screen types have already been represented.

Level 1: On the first level, there are simply two different stages. The first one (1-1) is a Barrel Stage, while the second one (1-2) is a Rivet Stage. eMimicking this level, first stage of every level will be a Barrel Stage, while the last stage of every level will always be a Rivet Stage.

Level 2: On the second level, there are three different stages. The first one

(2-1) is a Barrel Stage and the second one (2-2) is the first appearance of the Elevator/Spring Stage. Then, as always, the last screen (2-3) is the Rivet Stage.

Level 3: On the third level, there are four different stages. The first one, as always, is a Barrel Stage (3-1). The second screen (3-2) is the first appearance of the Conveyor Stage . Next, and third, is the Elevator/Spring Stage (3-3). The final screen (3-4) is a Rivet Stage.

Level 4: On the fourth level there are five different stages. The first one is a Barrel Stage (4-1), the second is a Conveyor Stage (4-2), the third one is another Barrel Stage (4-3), the fourth one is an Elevator Stage (4-4), and the last screen (4-5) is a Rivet Stage.

Levels 5-21: From Level 5 to Level 21, the order and number of the stages remains the same. This final order of the stages, by screen type, goes as such: Barrel, Conveyor, Barrel, Elevator, Barrel, and Rivet. As you can see, there are quite a lot of barrel stages, as they represent pretty much half of the screens in the game (57 out of 117). If you want to master Donkey Kong, you will definitely have to master the barrel screen!

Level 22 (The Killscreen!): On the very first screen of Level 22 (22-1) the game of Donkey Kong comes to an end. Due to a glitch in the programming of the game, Jumpman dies after about 6 seconds into this final barrel screen. This doesn't allow enough time for the stage to be completed, so there is no way to get passed this board –hence, why it has been menacingly dubbed “the Killscreen.” Reaching Donkey Kong's Killscreen is one of the most prestigious achievements a Donkey Kong player can accomplish, and it is the main goal of this manual to provide the necessary knowledge to get you there!

Strategy Section

Beginner's Tactics ("Running the Boards"):

Method Overview: The strategies contained within this manual are intended for the Donkey Kong playing novice. The main strategies that will be described deal with ways in which a player may survive long enough to reach the Killscreen. The goal is survival. A

beginner may concern themselves with an increasing high score as they get further in the game, but the goal is not to press for points, it is to survive until the end of the game. His/her only concern should be safely traversing the stages alive - even if this means that the player does not finish each stage with a lot of points or finish as quickly. Always remember: Live to fight another day. In other words, the day will come when you will begin to press for more points before you reach the Killscreen, but until then you must live until the end. There are already numerous things that make this game difficult for the beginner let alone trying to maximize points! Because of this, we will not be advocating point-pressing in this manual.

Goal: The goal of this manual is to assist the beginner in achieving their first Killscreen with a score of around 850,00 points. Even though the score is not the goal, it is a consequence of the prescribed 'safe' playing style described in this book.

General Means: In order to reach the Killscreen there are several key factors that come into play. Some of these factors deal with the basic style of game-play, while other factors deal with the psychological approach of the player. Additionally, there are several benchmarks for which Donkey Kong players need to strive since reaching them will be good indicators of when one is close to getting to the Killscreen.

Minimize Risk: The beginner needs to learn how to minimize risk in order to survive and play more safely. The player must familiarize themselves with risky situations and how to handle them correctly -if not to try to avoid them altogether. Practicing small, simple skills until you have mastered them (such as timing your jumps, and when to/when not to climb ladders) all eventually help the player feel more in control and comfortable, despite the fact that there is a lot going on in the game. In general, a new player should have a 'survival mode' mentality as opposed to pressing for more points. "Running the boards" is a phrase that simply means "just trying to get through each screen." Contrasted with this, is "point-pressing," which means, "trying to get more points." Obviously, running the boards requires taking a lot less risk and is much easier than point pressing. Before mastering point pressing, a beginner needs to first master running the boards –which is what this manual is all about.

Attitude: Skills and strategies are very important, but just as important is being mentally able to apply them. All the knowledge and muscle memory learned must be properly used in order to finish levels successfully. However, this cannot be done without there being a certain psychological mindset involved.

Focus: To be successful at Donkey Kong, one has to stay completely focused. Probably the two biggest reasons for loss of focus while playing Donkey Kong is: 1) When there is a loss of a life, and 2) When everything seems to be going your way.

Whenever you have an in-game death, there is a great tendency to become either angry or discouraged. Sometimes you can get angry because the death was due to a mistake, and sometimes you can get angry because it seemed like it was a nearly unavoidable death (players call these “screwings”). However, it is imperative that you remain calm and continue to focus. It is good if you are upset in a way that makes you more focused, but if it causes you to rush and make bad decisions, it is not going to help. You can’t just magically do better at the game because you are upset; the game still runs by the same rules. Furthermore, becoming apathetic simply due to a death is also not good. Granted, there are some times where not caring about the specific game you are on is statistically reasonable -such as maybe if you lost a life too early in the game and it would be wiser to just restart, or maybe you have already lost too many lives for reaching a Killscreen to be feasible. However, especially when you are new to the game, it is often helpful to push through a death and continue while trying to “come from behind”, as it were.

Also, sometimes people can become apathetic, fearful, or even discouraged when one of their deaths is caused by situations that seem to be completely out of their control. Sometimes a fireball or firebox will trap you, or barrels won’t go where you want them to go, or Donkey Kong may throw several difficult wild barrels in a row so that it seems like there is no possible way to survive. In a situation like this, it seems like all your best efforts do nothing. For these reasons it is easy to understand why a player might get discouraged, but one needs to remember that most of the game is not that way. Statistically, if one plays perfectly sound Donkey Kong, they will eventually reach the Killscreen –and probably more than once, at that!

Lastly, many people lose focus due to the game becoming easy. Very often, once you have developed enough skill, you will have long stretches of easy screens. It is quite easy to lose focus by ‘going into autopilot.’ Zoning out and not paying close attention can be costly once the game’s good randomness

decides to take a turn for the worst and mix up the rhythm. It is always better to stay alert and focused as much as you can -even when the game seems to be going fairly easily. In other words, good randomness can lure a player into a false sense of security and begin to train your mind to hope for the best instead of always being alert and ready to respond to the worst. Hope for the best, but be prepared for the worst. Position yourself to take advantage of opportunities, but not at the expense of trapping yourself if the randomness turns on you.

Always remember that there is a strong tendency to die twice in a row due to loss of focus. When you die, the frustration, fear, discouragement, or laziness hindering you must go away within the next 5 seconds because, by then, you will already be on your next life -and you don't want to be carrying any extra emotional baggage from the last death. It is also important to realize that it is impossible to know what kind of bad randomness or personal mistakes lay ahead of you, so it does no good to worry about those either. The only thing you can do is be ready mentally and improve your skills as much as possible to be able to deal with all the possibilities that may occur. It can take a lot of time and emotional angst, but what is always necessary for a Donkey Kong player to succeed is complete focus!

Patience/Perseverance: Donkey Kong players also need a whole lot of mental endurance. Since the game is not marathnable, it may seem as though not much endurance is actually needed. However, since Donkey Kong is not a patternable game (meaning that each screen can not be beaten simply using a fixed pattern or patterns) and since quite a large amount of planning ahead, calculating risks, and reacting on your toes is required to play the game correctly, the game can be very mentally fatiguing.

Whoever decides to try to make it to Donkey Kong's Killscreen will need to have patience and perseverance in both a short-term and long-term sense.

In the short- term, one will need to have the patience and perseverance to make it through a 1.5 - 1.75 hour long game (the time it normally takes to get to the Killscreen). Though this may not seem like a long time, when one is required to focus intently the entire time (you only have 4 lives, remember!), the task becomes quite hard. Also, within each game, there are many places

and situations where patience is also the best option. Many beginning players feel the urge to rush to complete a stage, when this may actually lower their odds of surviving by increasing risk. Likewise, there are many places where you need to persevere through the bad randomness that is presented in the game. Don't give up, but also remain calm! Remind yourself that you know what you are doing and that you have been there before.

In the long-term, one also needs a patient and persevering attitude. For even the best, most quickly improving player, getting to the Donkey Kong Killscreen takes months and months of attempts. Most people have to play well over a thousand serious games before they even get close to the Killscreen! It requires patience with oneself and perseverance to keep seeking to improve at the game if this goal is to ever be reached. Sometimes you'll have off days, and sometimes you'll have off weeks. Donkey Kong is not a game you can expect to make progress in without having huge anomalies where you suddenly seem as though you are back to square one. There is even quite a bit of muscle memory involved in many of the basic skills that can be lost if you haven't played in a while. However, if you stay consistent and stick with it, you will see an overall increase in your best games. Furthermore, the closer you get to being able to reach the Killscreen, it becomes easier and easier to be impatient if a game isn't turning out as well as planned. Donkey Kong players have to learn to push past these emotional hurdles and try their best to have a more stoic approach to the game. If you become too emotionally attached to each particular game, I can guarantee you will eventually rage! Donkey Kong does not discriminate, it makes it tough for everyone. Don't let Donkey Kong break your will!

Intentionality: Another important concept that a Donkey Kong player needs to remember is to be intentional. No one will get very far by merely coasting mindlessly through the game. The randomness of the game may only work in your favor for a short period of time, so you need to stay focused and ready to respond. Being intentional means to know what and why you are doing what you are doing. You need to focus and be intentional and not just zone out while doing these things. Because there is such an interesting mix of skill and strategy that is involved in playing the game, there are numerous ways in which one has to *purposefully* plan and react to different situations. When you first start playing the game you will die quite a bit. The intentional player will meticulously examine their deaths and try to realize where they went

wrong in trying to survive. Then, after they have figured out where they were inefficient or wrong, they will *intentionally* apply their learning to the way they play the game in the future. You will undoubtedly commit the same mistakes over and over again, but the intentional player will seek to understand what is causing the deaths and try to eliminate them. Sometimes you will forget and die because of actions you already realized were mistakes, but good players will keep reminding themselves and recalling what they have learned to do/not do in order to survive those avoidable situations. Playing Donkey Kong is, in a sense, one big, repetitive trial and error process. You need to be intentional in not repeating the bad things while also repeating the good things.

Playing Within your Ability: The last crucial thing a Donkey Kong player needs to remember is to play within their ability. If you are attempting to increase your score or get further in the game, then you need to stick to what you know for certain. This means that, when it comes to survival, you don't want to mix things up and suddenly try to play in a different or more risky style. This goes hand in hand with being both intentional and patient. Sometimes trying to keep a consistent, safe play style means you need to be a bit more patient and precise. Also, playing within your skill will make the game seem much easier and you won't get your adrenaline going from a death or tough scenario that you caused. Though, you will definitely need to improve your skills up to a certain point with practice, this will come naturally with trial and error. After these skills are acquired, though, it makes no sense to go all-out doing daring, risky things unless you are trying to play for points rather than survival. However, it can be very helpful to *purposefully* put yourself in difficult situations during *practice* games so that you can get used to surviving unlucky situations that you may still encounter while playing with a safe style of play. As many top Donkey Kong players can attest to, this is a very good way to improve your skills beyond what is needed to merely get to a Killscreen -and it will make getting to a Killscreen seem all the easier. But, again, for when you are actually trying to get a Killscreen, it is advised that you play within your ability to keep the game as simple and safe as possible. Keep yourself out of situations that you know will get crazy. And don't rush! Playing within your ability means keeping within the familiar. We often don't have much time to assess and rethink situations, so we need to execute what we know and do it without much explicit cognitive processing. All your tactics and strategies need to be sitting in your subconscious queue ready and

waiting to be used within a moments notice.

3 Benchmarks: In Donkey Kong, the game starts out giving you only 3 men. Once the player reaches 7,000 points, they are awarded an extra man (assuming that your dip switch settings are set to give you an extra guy at the default 7,000 points). Beyond this, no extra men are ever awarded in the game. This means that for someone to get to the Killscreen, they are only allowed to die 3 times -leaving your 4th man to ascend to Level 22. This fact can be translated into several different types of benchmarks that a beginner can strive for in order to see their progress towards (as well as their potential for) reaching the Killscreen.

97% Survival Rate per Screen: One way that only having 4 lives for the entire game translates into a benchmark, is that you need to survive 97% of the stages you play. Since there are 116 stages in Donkey Kong (not including the Killscreen –where death is inevitable), $116/120 = .9666\dots$, which is less than 97%. Though you are not able to calculate your survivability percent easily during a game, knowing that you need to survive at such a high percent can really help you to realize how safe one actually needs to play. You can always roughly calculate your own survivability percent after a game by using this equation:

Number of screens survived / Number of screens played (i.e. Number of screens survived + 4) = percentage of survival per screen (make into a graphic?)

Once you see what your survival percentage is at and how it compares to 97%, you can start to slowly determine what sort of things you are doing within your own game-play that cause you to die the most. Slowly weed out possible weaknesses in your skills/strategy and watch your survival rate climb!

29+ Screens per Man: Another simple benchmark is to survive a certain minimum number of stages per life. Since there are 116 stages, this means that one needs to survive 29 ($116/4$) stages per life. Though some screens may be harder than others, in the long run, each group of 29 screens will tend to equal out in terms of difficulty. Before each respective death, you'll need to pass the following screens in order to reach each of the 29 screen

benchmarks: 7-3, 12-2, and 17-1.

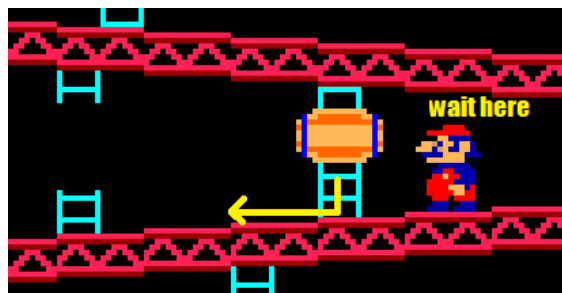
200K+ per Man: Lastly, and most simply, one can try to get a certain amount of points per each life. Since this manual is trying to teach you a style of play that will get you anywhere from 800,000-850,000 points, one needs to get at least 200,000 points per man. As a beginner, you should try not to get so infatuated with your scoring pace, rather, you should seek to have a higher 'survival pace.' One's survival pace is equivalent to one's projected final score based upon the extrapolation of one's average points per man. For example, if someone loses their 2nd man after 250,000, then their survival pace is 500,000. Likewise, if someone loses their third life after 700,000 then their survival pace is well over 850,000 and they are on track for a Killscreen! However, remember that most players tend to lose lives in groups as well as later in the game due to fatigue and other psychological factors. Because of this, it is strongly suggested to simply try to get as far into the game as one can from the very start by using the first life.

Specific Stages: In this section we will examine each of the various screen types individually. The important aspects how to survive each particular stage will be organized and explained so that you can easily search for and learn about either specific mistakes you might be making or certain, further strategies you might still need to learn and employ.

Barrel Screen: The Barrel screen is the most prevalent screen in the entire game of Donkey Kong. Including the Killscreen, it makes up 57 of the 117 different individual screens that are in the game. Though it is arguably the most difficult of the 4 stage types to master (the others being the Conveyor, Elevator, and Rivet Stages), it ought to become one of the easiest to survive (the Elevator Stage becomes quite easy as well). If you want to master this screen, you will need to understand and know how to use the following skills and strategies.

General Survival Principles/Strategies:

Waiting Uphill of Ladders: One of the simplest and most helpful ways to survive longer while playing Donkey Kong is to wait on the uphill side of the ladders that one is trying to climb. For beginners, it is quite natural to simply rush towards the next ladder one desires to climb, but this can lead to



many quick deaths. Many times these deaths are from either having insufficient time to react to barrels that come down the ladder, or from not being able to coordinate seeing the barrels on girders above Jumpman while also trying to immediately time the climbing of the ladder while on the run. It takes a lot of practice before someone can be able to properly know whether or not it is safe to climb a ladder. Therefore, it is good to learn the safer way to play the board first until you acquire a better feel for the game.

The rationale behind waiting on the up-hill side of ladders is threefold: 1) This positioning allows the player to have the closest distance to the ladder that they desire to climb while also keeping them the furthest distance possible from potentially harmful barrels that are rolling on one's own girder coming (from the ledges and ladders uphill of Jumpman), 2) this position allows you to better see whether or not it is safe to climb up the ladder, and 3) this strategy, in general, teaches the new player how to stay out of risky situations that are caused by rushing. It is true that in some situations it is better to immediately rush up a ladder, but those situations are in the minority, and it takes time to learn how to recognize when the situation calls for it. On top of that, if you start out by playing by this rule of safely waiting uphill of ladders, you will more easily learn when it is in fact better to rush up a ladder. It is much harder to learn the opposite way around, since your deaths caused by rushing will not as easily allow you to see the best solution to a given situation.

This brings up the point that this rule is mostly conditional –meaning, it is meant for the really new players to Donkey Kong. Once you feel you have acquired the feel for when it is appropriate to climb ladders safely, then you may start making more and more exceptions to this rule. Also, it must be said that this rule is best used with the longer middle ladders. Since the longer ladders require more time to climb, it is

more difficult, beforehand, to know that you have the necessary time to do so. Also, since most of the shorter ladders are at the ends of girders, this strategy is less effective, because it doesn't really help as much for giving you distance from uphill barrels while waiting –though it does still allow you to steer away the uphill barrels while you wait.

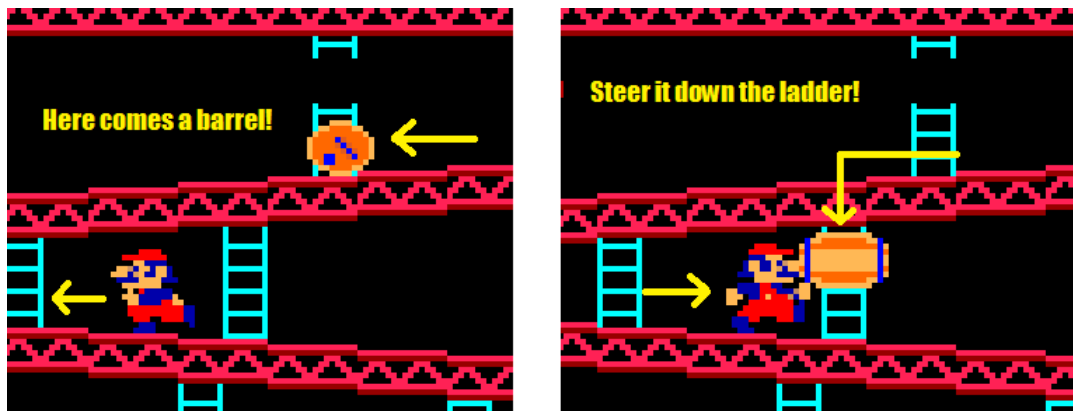
Retreating to the Uphill Side of ladders: Related to waiting uphill of ladders is the other simple rule of always trying to retreat down ladders towards the uphill side as well (say, if a barrel blocks you from being able to fully climb up a ladder). Unless either a fireball or a barrel on the same girder pressures you not to, it is best to also retreat to this location. As with the previous 'rule' this is also a conditional strategy. Once you get good enough to know what you are doing, it is allowable to retreat to whatever side you would like. However, many of even the best DK players still abide by this retreating 'rule' since it is a relatively safe fallback area for when things get tricky. It would be very wise to seek to intentionally practice this maneuver when you are new to the game, because sometimes it can be hard, in the moment, to realize which direction is actually the uphill side of the ladder! When you are reacting and trying to quickly retreat, in your panic, you may accidentally head for the wrong direction. Rest assured, that, over time, this procedure will become second nature.

Steering Away Rolling Barrels: The most iconic strategy in all of Donkey Kong, comes into play on the Barrel Stages: It is the ability to “steer” rolling barrels. What “steering” means is the ability to have (some) control over which ladders the barrels go down. When a barrel on a platform above you is about to roll over a ladder, if you move in the direction of that ladder, there is a better chance that the barrel will go down that ladder. This is because the barrels are programmed to track you and try to kill you when you are heading for or trying to climb ladders. Knowing this allows the player to actually use the very programming of the game to his or her advantage! By steering barrels, you can avoid some very bad barrel combinations that might otherwise have come your way. Not only can you steer barrels that are on the platform directly above you, but Jumpman's movements can also be used to influence barrels on every other girder that he is below! It is also worth mentioning

that
you
can
steer

barrels down both the regular and broken ladders –the type of ladder and the location of the ladder above Jumpman makes no difference.

Using the Hammers: On the Barrel Stage, there are two different hammers: A top



hammer and a bottom hammer. Unless you are trying to point-press, you should almost never need to grab the bottom hammer, since doing so only tends to complicate things –especially if you do not know how to use the bottom hammer properly. The only exception to this rule is if the first fireball climbs up to the 2nd girder and blocks off your passage toward the 3rd girder. Only then would it be legitimate to use the hammer to smash the fireball. Otherwise, it would be posing a serious risk to your progression up the screen. Also, since your task is only to reach the Killscreen, there is no need to get the bottom hammer for points.

However, the top hammer -which is located to the top left side of the 5th girder- is very useful. For a beginner, trying to make it past the fifth girder without using the top hammer can be very risky, since there are still several different, difficult barrel combinations that can come your way. It is advised to simply always grab the top hammer as extra protection. When grabbing the top hammer, as much as you can, try to only do so using a standing jump. Grabbing the hammer while wall-jumping leaves one much more susceptible to being hit by a wild barrel. Use the hammer to make your way to the top-right corner of the screen, where you can wait to climb the ladder to the 6th girder once the hammer runs out.

Dealing with wild barrels: One of the hardest parts of Donkey Kong, for the new player and experienced player alike, is the wild barrels. As a reminder, ‘wild barrels’

are the barrels that Donkey Kong throws, rather than rolls, towards the bottom of the screen. These barrels are periodically thrown and bounce off girders, either to the left or to the right. Some wild barrels are programmed to be "heat-seeking" and attack Jumpman by changing direction towards him with each new bounce. Wild barrels are pretty intimidating -especially since they are quite different from the normal 'rolling' barrels one gets most of the time. Experts know from the game's code that each barrel Donkey Kong grabs has a 1/16th chance of being a wild barrel. Since only about 8% of barrels will be wild barrels, statistically, you should expect there to be only about 2 or 3 wild barrels per screen once you master the basic method of safely running the boards. Wild barrels can be thrown at basically any time, so it takes practice learning how to both react to them as well as modify your strategy to account for when they may arise. One of the reasons why wild barrels are even a difficult thing to deal with in the first place is because of all the other rolling barrels (and fireballs!) around you with which you also have to deal. If there were no other normal, rolling barrels for you to run into, it would be significantly easier to just outrun or juke every wild barrel. However, this is not the case. Therefore, it is crucial to recognize wild barrels (especially the Type 2 wild barrels, such as during the first 66 seconds of Level 3 and the first 33 seconds of Level 4) as soon as possible, that way you will have the maximum amount of time to coordinate what other obstacles are in your way and decide the best course of action. Ironically, wild barrels on stage 1, 2, 3, and 4 are more often harder to avoid than on Level 5, so if you can get to Level 5 the majority of your troubles with wild barrels will be over. If you want to properly survive the barrel screens, you'll need to learn the wild barrels' "behavior" and how they differ from level to level and within each level. Some are random, but some of them can be controlled (since, in varying degrees, they track Jumpman's location) or safely avoided. Whether or not Jumpman can 'steer' wild barrels is dependant upon the type of wild barrel. Type 2 and 3 can be steered, while Type 1 cannot. Below is a quick description of how the wild barrel behavior is different depending upon the particular level and time elapsed (you can also look under the 'Internal Difficulty' section for more information on Types 1, 2, and 3 wild barrels):

Wild Barrel Types: In Donkey Kong, there are distinct 'Types' of wild barrels. These 'Types' are determined by the current Internal Difficulty being dictated by the programming as the game runs. In total there are 5 Internal Difficulties, while only 3 wild barrel 'Types'.

Type 1 Wild Barrels: If a Type 1 wild barrel is thrown, these wild

barrels can easily be avoided. This is because this type is completely random and not dictated by Jumpman's location at all. Additionally, these wild barrels have less potential for left-right movement than Type 2 wild barrels. Because of this, the easiest way to avoid them is to stay as far away from them as possible while they are yet several girders above you. If you delay too long and one of these wild barrels makes their way directly above Jumpman, it may be the luck of the draw whether or not you react in time to safely dodge its random trajectory. This type of wild barrel is thrown when the Internal Difficulty is 1 or 2.

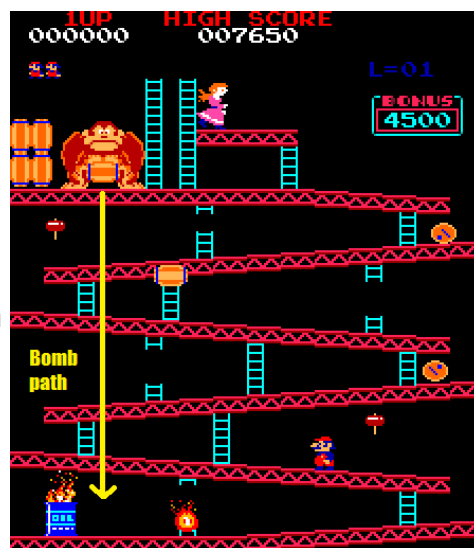
Type 2 Wild Barrels: This Type of wild barrel is the most aggressive Type in the game. If a Type 2 wild barrel is thrown, then it is important to 'steer' the wild barrel in one direction then run in the opposite direction. It is also crucial to know that Type 2 wild barrels can travel to the right twice as quickly as they can travel to the left. Because of this, it is generally safer to steer them *right* and then avoid them by moving to the *left*. Since the vertical speed of these wild barrels is constant, the horizontal speed will vary with the angle that the barrel takes to reach the next girder. The greater the angle, the further the barrel must travel to reach the next girder, and therefore must travel faster along that path in order to maintain the constant vertical speed. If the barrel bounces to the left then the code allows a random distance within the same limits as a Type 1 wild barrel. However, if the barrel bounces to the right, the code allows a random distance ranging from a minimum distance (which is the maximum allowed distance for Type 1), and a maximum distance (which is twice the maximum allowed distance for Type 1). In other words, if the range for Type 1 wild barrels is 0 to x , then the rightward range for Type 2 wild barrels is from x to $2x$. It is precisely because of both this greater rightward movement as well as Type 2 wild barrels having a minimum rightward distance that allows one to steer them more safely to the right than to the left.

It is crucial to constantly be watching Donkey Kong during times when a Type 2 wild barrel may be thrown so that you have the maximum time to formulate a plan and react. It is very dangerous to be caught off guard by a wild barrel (especially this Type) while there are several rolling barrels in proximity, as they significantly constrain one's options

for avoiding death. This Type of wild barrel is thrown when the Internal Difficulty is at 3 or 4.

Type 3 Wild Barrels: This Type of wild barrel is the most common wild barrel in the game, and it is basically the only wild barrel that appears on levels 5+ -though it may sometimes be seen on lower levels as well. However, even though Type 3 wild barrels also track Jumpman's position, they are not as aggressive or variable as Type 2. This Type of wild barrel will always travel exactly half the distance to Jumpman between each bounce. However, the general rules of safety still hold true: 1) Always try to watch Donkey Kong as much as you can to know as soon as possible when he is throwing a Type 3 wild barrel, and 2) quickly avoid the wild barrel and get into a safer zone -especially if there are several rolling barrels in Jumpman's proximity. Otherwise you will significantly decrease your odds of adequately reacting and surviving the situation. This Type only appears when the Internal Difficulty is 5.

"Bombs": The last Type of wild barrel has been called "bombs". These get their name from the fact that this type of wild barrel is significantly faster than other types of wild barrels and always fall down in a straight line from Donkey Kong's hands. Another aspect of these wild barrels is that they do not bounce from girder to girder. Normal wild barrels hit each girder (which is when they redirect) and often there is a very noticeable bounce (which can nip Jumpman in the foot!). Bombs, however, fly straight through girders and only bounce when they reach the very bottom girder. Bombs do not fit into any of the 3 main Types of wild barrels, as they are not dictated by the Internal Difficulty. Therefore, bombs may appear on any level of the game.



Though bombs are also much rarer than any other type of wild barrel, they should still be factored into one's gameplay strategy. The biggest danger presented by these wild barrels is getting caught off guard and finding yourself in the area directly their release point (which is anywhere directly below Kong's hands as he is facing forward). To avoid these barrels, simply avoid spending much time in this area. Never allow yourself to be trapped by other rolling barrels or fireballs in a place where you might have to spend a lot of time going back and forth through this danger zone. Also, as always, keep as attentive of an eye as you can on the barrel in Kong's hands when you do find yourself in or around this zone. It is also helpful to know is that their movement runs along the right side of the small ladders to the far left of the screen and will not hit you while you are on either of these left-side ladders. Therefore, if you are on either ladder when a bomb is thrown, you do not need to exit the ladder, but should wait till it passes before you resume moving to the right (i.e. off from the top of the ladder). However, it is important to note that there will be very, very rare occasions, when a falling bomb may actually strike a girder and move towards Jumpman. The reasons for this and the general cause of bombs altogether is much too sophisticated to worry about for the purposes of getting a Killscreen. Bouncing bombs are so rare, that one may simply assume all bombs will be normal bombs and it will probably never hinder getting to a Killscreen while running boards.

Wild Barrel Types on Various Levels: Because the Internal Difficulty is dictated not only by the level of the stage but by the amount of time that has elapsed during a specific stage, this allows for multiple Types of wild barrels to appear on any given Barrel screen. However, the fact that one is trying to run boards can dictate, in general, how difficult various levels will become with respect to wild barrels -since part of your goal is to complete the screen as quickly as safely possible.

Level 1 and 2: Wild barrels on levels 1 and 2 will be relatively calm compared to the ones on levels 3 and 4. This is because if one is trying to quickly get to the top of the screen (i.e. skipping the bottom hammer, and 'running the boards'), most of the time Jumpman will complete the level before the Internal Difficulty changes. Level 1 starts at Internal Difficulty 1, so there are 66 real-time seconds (which is a lot

of time!) before the wild barrels become Type 2 and are much harder to navigate. Level 2 starts at Internal Difficulty 2, so there are 33 real-time seconds (still a lot of time) until the wild barrels change to Type 2. If a player becomes quick and efficient at running boards, they ought not see a Type 2 wild barrel at all during these levels.

Level 3 and 4: The wild barrels on levels 3 and 4 are likely the hardest part of all of Donkey Kong's Barrel Screens. This is especially the case when you are simply going for a Killscreen, because you won't be risking putting yourself in as many situations where fireballs may cause problems like you would if you were point-pressing (as well as other sorts of added risks that come with going for more points). Unlike on levels 1 and 2, the wild barrels on levels 3 and 4 will *primarily* be Type 2 wild barrels. Also unlike the Type 1 wild barrels on levels 1 and 2, these Type 2 wild barrels are nearly 100% controllable, with only a slight random variation in the angle they will switch to at each bounce. Because these wild barrels are so aggressive, it is much more likely that you will not be able to avoid dealing with them. Still, it is always best to realize when you are on a Level 3 or 4 barrel screen and be watching and ready for when Donkey Kong throws a wild barrel -just in case you actually can avoid them altogether. If not, then, at the very least, you will have more time to figure out how to address the situation.

For Level 3 there are 66 real-time seconds before all wild barrels become the calmer, Type 3 wild barrels. On Level 4, however, there are only 33 seconds before this same change happens. Because of this, many top players advocate breaking the general rule when 'running the boards' of only grabbing the top hammer and actually grabbing the *bottom hammer* too while on Level 4 barrels screens. This is done in order to allow enough time to pass before climbing up the screen so that the Internal Difficulty can change to 5 and the wild barrels can therefore switch to the more manageable Type 3 (which it does once the timer reaches approximately 6000). However, in order for this to work best, one ought to also try to first wait a while near the bottom hammer to use up even more time -in case the hammer ends up not taking up enough time. Also, try to smash as many fireballs and blue barrels as possible when wielding the bottom hammer in order to

prevent fireballs spawning, climbing, then rushing you as you traverse up the screen. This also helps to prevent the bad situation of a fireball getting above Jumpman and blocking one's upward progress. However, if a fireball does climb up, forcing you to grab the bottom hammer prematurely, that is an action that can not really be avoided and must take place. In the end, simply because of the wild barrels on these two levels, you should almost expect there to be at least one death during your typical serious game. Don't let a death during these levels discourage you, because even the best Donkey Kong players have trouble avoiding Type 2 wild barrel deaths. Rather, be pleasantly surprised when you do make it to Level 5 with all your lives, and play even more seriously because of it.

Level 5+: Ironically, Level 5+ wild barrels are the least dangerous of all the wild barrels because they are always Type 3 (or, in the rare case, bombs). Though these wild barrels also track/aim for Jumpman, they do not have the ability to drastically change their angle of approach like Type 2. Because of this, the barrels are very slow at moving left or right, and they tend to fall in a sort of hyperbolic fashion with their most drastic left-right motion happening higher on the screen. Often times, all that is needed to avoid these barrels is a slight move to the left or right at the last second. Therefore, it is easy to see how running in any direction away from them is basically 100% safe. Still, when you are up below Donkey Kong, on the 4th or 5th girders, you still need to be careful about when you time your jumps, otherwise you might end up helplessly in the air when Kong decides to throw one of these wild barrels -which can then hit you all the more easily when you are higher up on the stage. The same applies for climbing up the short ladder just left and below Donkey Kong, or when you are trying to run under Kong on the 5th girder.

Avoiding wild barrels (When They are Still Distant): Since the top right corner of the screen (starting at about the mid-point on the 5th girder) is out of reach from every type of wild barrel, it is the ideal location to avoid wild barrels. However, if one is not near this part of the screen (which is most of the time), you will need to develop a strategy to address these situations. The simplest way to avoid any wild barrel is to not even be near it at all. This usually is not too difficult to do with Type 1 and Type 3. The simplest way to

deal with Type 2 wild barrels, however, is to steer them one way and run in the opposite direction well before they even come close to you. Because Type 2 wild barrels move more quickly to the right than to the left, it is generally true that running to the left side of the screen is safer. Even if the Type 2 is a couple girders above you it can still be 'steered' in this manner. Very often this creates a situation where that particular wild barrel ever reaching you is an impossibility. Preemptively avoiding wild barrels frees one up to deal with only the rolling barrels.

Juking wild barrels (When They are Just Above): Inevitably, you will be faced with a situation where you cannot just simply avoid these wild barrels by running away from them and you will be forced to 'juke' them. This is most applicable to Type 2 wild barrels, which predominantly appear on levels 3 and 4. 'Juking' wild barrels is much like steering normal barrels down ladders, however, this type of 'juke' is dependant solely on Jumpman's left-right location on the screen and can only be done to Type 2 and 3 wild barrels. If Jumpman is to the left of the wild barrel at the time when it hits a girder above him, then it will go left, and if Jumpman is to the right, the wild barrel will go right. Using this to your advantage you may be able to actually get a wild barrel to bounce off the screen, where it will disappear for good. If not, you also may have a chance of simply juking it in the direction in which you weren't planning on going (always a great option!). Lastly, if all else fails and the wild barrel is about to hit the girder directly above you, then you will need to stand either just to the left of it or just to the right (juking Type 2 wild barrels to the right is more preferable because of the constraint they have on the minimum distance to the right they must go). If you do this properly the wild barrel will pass over your head and to the side. If this happens, watch out for a bit more, because wild barrels will also then bounce up towards your feet. Depending on how far the barrel steers over your head, to the left or to the right, you may either need to walk in the opposite direction or else do some sort of jump to keep the bounce-back of the wild barrel from nipping your toes. It may take some time to become precise enough at it so that you aren't actually going *too* far to the left or right while conducting this procedure. Practice will be a great benefit in this case.

Dodging wild barrels (When they are Upon You!): Lastly, you might also encounter a situation where you don't really have the opportunity to steer the wild barrel at all. This sort of situation often happens higher up on the screen,

either while on the middle of the 4th girder, or while just below the top hammer. With situations like this you often just have to do your best at reacting as quickly as possible and trying to either run or jump out of the way. If this situation presents itself while you are on a ladder then it would generally be best to retreat down and off the ladder as opposed to climbing up it. If this situation occurs while you are near the top hammer, always remember that you can try jumping off from the invisible wall to the left if it might save you. Also, remember that many times you'll have to dodge the *bounce* of wild barrels as well! However, the simplest way to prevent these sorts of situations is to just think ahead and avoid running directly under or climbing the small ladder under Donkey Kong at the time he is grabbing a new barrel. Always wait to see if the next barrel is wild before proceeding. Often times, many of these situations are absolutely unsurvivable. And if you do survive in these kinds of situations, it may not have anything to do with your skill, but based upon pure luck. Again, plan ahead and be ready to react to the worst Kong throws at you.

4th and 5th Girder Theory: It is also necessary to explain some of the safer ways to survive up near Donkey Kong, where you will be most vulnerable to wild barrels. The simplest way to survive better on the 4th and 5th girders is by knowing the location of the respective 'safe zones' while 1) waiting to get near the ladders on the left, 2) waiting to climb up and get to the hammer, and 3) waiting near and with the hammer before you head over to the right side of the 5th girder. The next important piece will be understanding what conditions you need to wait for or create in order to progress further up the screen. As you will see, the safe (or safer) zones that can be utilized are different depending upon the Internal Difficulty, and there are slightly different nuances to how to go about traversing between them due to this fact. For example, the different types of wild barrels one will typically face on each level will determine which ladder to use when making the climb up to the top hammer. However, the general process of going from the middle of the 4th girder to the safe zone (unreachable by wild barrels) on the right side of the 5th girder will be very similar for every level, with only slight differences needing to be learned.

Levels 1-2: For these levels, it will be assumed that one is trying to get to the top hammer as quickly and safely as possible while also skipping the bottom hammer (as is recommended by this manual). Therefore, it is assumed that one will only deal with Type 1 wild barrels before reaching the top hammer. If one takes too long and *does* see a Type 2 wild barrel, simply utilize the

strategies that would be more typical for Levels 3 and 4 (see 'Levels 3-4' below). On levels 1 and 2 barrel boards the Type 1 wild barrels will not be affected by Jumpman's location. Because of this, on the 4th girder, it is much harder to predict where barrels will go after they hit the 5th girder above you. Therefore, it is advised that on these levels one ought to generally hurry as quickly as one can from the 4th to the 5th girder, as well as in grabbing the top hammer. However, it is a great help to understand the possible dangers of making this climb, so that it can be executed safely. You don't want to simply throw all caution to the wind and go as fast as possible at all costs.

Moving Left: To climb to the 5th girder there are only two unbroken ladders that are both to the left side of the girder. Because of their placement, they are both within the immediate range of various types of wild barrels on these particular levels. Even barrels that Donkey Kong might not throw quite towards the ladders may still bounce quickly at you if you are on them. Knowing this, a couple of the most helpful things one can do is 1) wait in a *relatively* safer position to climb the ladders, and 2) properly time the climbing either of the two ladders with when it is apparent that Donkey Kong holds a normal, rolling barrel.

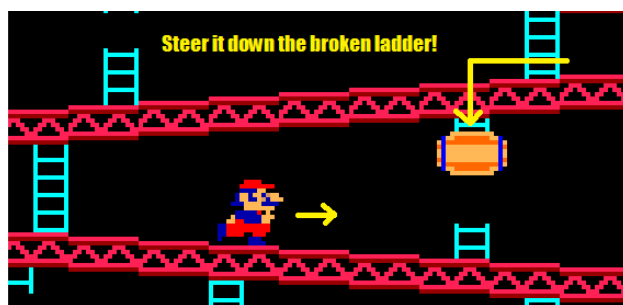
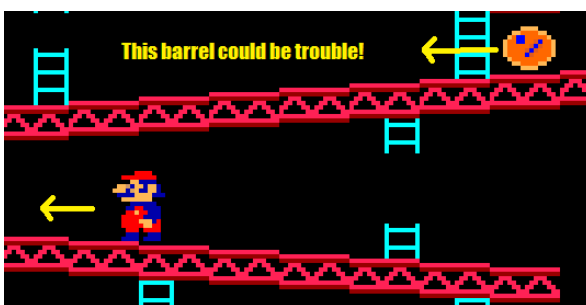
The safest zone (by far) will be in the middle of the 4th girder, just above the long middle ladder connecting the 3rd and 4th girders. This keeps you out of harms way from Type 1 wild barrels until the conditions are more preferable. Since Type 1 wild barrels do not track Jumpman, you probably won't be in the way of wild barrels

while in this location. If one does come your way, simply retreat to the *right*.



Steering Down the Broken Ladder: In order to make progress towards the 5th girder, one will need to travel towards the ladders on the left. To do this, one needs to first be patient

and set up a scenario where it is safe to proceed. The main way to do this is by steering barrels down the broken ladder on the right. If the player can make it so that while he runs left there will be no barrels above him that might steer down the ladders on his left, the task will be much easier. The main priority is to simply make sure that there aren't *groups* of barrels that might steer when you move left. If barrels are in groups (or even just close to one another) it is harder to predict which barrels will steer (or not steer) down either of the two ladders. This makes it more difficult to know how you will need to jump them in order to survive the encounter. If you can run left with only one barrel that might steer above you, then all the better. However, the ideal is to move left with *no* barrels threatening to steer down, since even one barrel would force you to jump and you may then still get hit by a wild barrel while in the air.



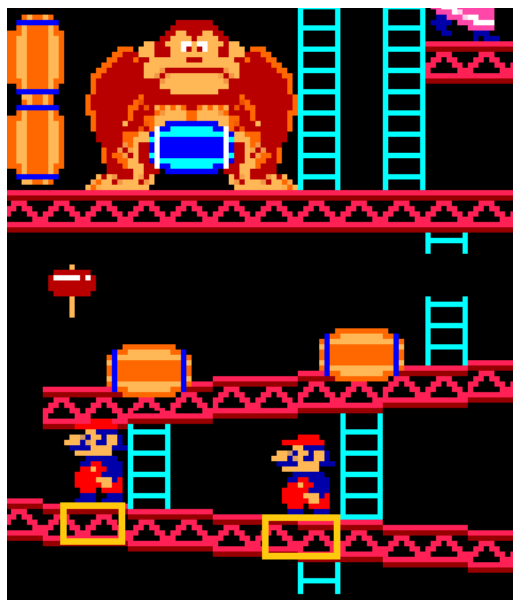
Once you have satisfactorily cleared a path by steering down the broken ladder, one may begin moving left. While moving left (and before Jumpman has reached the first, longer ladder), there are a couple things to keep in mind:

1) Don't do any forward jumps over barrels unless you absolutely must (e.g. if you are being pressured by a fireball). Forward jumping over barrels makes Jumpman much more susceptible to getting hit by a wild barrel while in the air. If a jump is needed, make it a backjump or a standing jump. However, if it looks like Donkey Kong might be about to release a wild barrel, a back jump is safest on Levels 1 and 2. With much practice you will eventually be able to time and use forward jumps once you understand where Kong is in his barrel

rolling/throwing process, but for now, as a general rule, it is safer just to wait and be patient.

2) Make sure you don't steer barrels down the broken ladder connecting the 5th and 6th girders. If you are moving left and you see a barrel being released on the 6th girder, pause and make sure that you don't steer it immediately down to the 5th girder. This also goes for making sure you don't steer the barrel down by being *directly below* the broken ladder as well (remember, barrels can be steered if you are on the same x-axis position as an above ladder). If you accidentally steer down this barrel, just re-steer it again down the ladder in front of you, and then just straight jump it. Keep your eye open for an opportunity while you patiently wait. You may have to retreat back to the middle of the 4th girder in the mean time -essentially, starting back at square one.

Waiting to Climb: The safest zones under Donkey Kong are uphill of the longer and shorter ladders. Though these places are not protected from Type 1 wild barrels, they keep you out of harms way from barrels that may come down the ladders. These locations also allow you to move a bit to the right in case you need to steer barrels down the broken ladder on the right side of the 4th girder (or, if you are waiting uphill of the shorter ladder, even down



either of the unbroken ladders). An important thing to note is that if you are waiting uphill of the longer ladder, then you want to make sure that you don't accidentally cross into the danger zone directly below Donkey Kong where he throws bombs, which is down along the right side of the short ladder. Importantly, you'll only want to move from the safe spot uphill of the long ladder towards the short ladder if you are

certain there are no immediate threats from the barrels on the 5th girder. If you move to the safe spot near the short ladder too soon, then you'll find that it is much harder to manage the rolling barrels if they do not steer when you try to steer them. It is often the case that too many barrels on the 5th girder will force you to cross back across the danger zone against your will -which is not a good position to get yourself into! Because of this, you'll have to go through a similar process of steering barrels down the ladders to your right like you did from the middle safe spot.

Use the Short Ladder The only relatively *more* dangerous place to wait on the 4th girder on levels 1 and 2 is directly below Donkey Kong, since this is where the fast 'bombs' fall. Otherwise, most everywhere in this area is basically equally susceptible to attacks by Type 1 wild barrels. However, since it is by far the simplest, quickest, and safest route (during the first 4 levels) to climb to the top hammer using the smaller of the two ladders, it is preferable to ultimately make one's way to the base of this ladder once the way is clear. There are a couple reasons why using the shorter ladder is superior to the longer ladder on these levels:

1) The longer ladder takes more time to climb. Since there is only a limited time between each of Donkey Kong's barrel releases, it is best to use the least amount of time to get to the 5th girder so that you don't get hit while caught on a ladder. Additionally, the shortness of the left ladder makes it easier to either retreat to the lower safe spot, or, instead, to quickly scoot over to the 'safer' spot under the hammer (more on this 'safer' spot later).

2) The smaller ladder is on the *left* side of Donkey Kong, and since the wild barrels are less aggressive when moving to the left, it is easier to see where they are going and to then avoid them. This is most applicable in the case that the Type 1 wild barrels have

already changed to Type 2. For Type 1, there is no difference in how they move left and right.

3) If one were to climb the longer ladder, one would have to traverse under Donkey Kong to get to the top hammer while being much closer to Donkey Kong's release point than if one were to do it while still on the 4th girder. Traversing across the safe zone while on the 4th girder gives the player a bit more time to react in case a bomb or wild barrel is thrown. Additionally, whereas the shorter ladder provides a safe spot just downhill of its top (under the hammer), the long ladder does not.

Once you are able to get to the base of the short ladder, if there are still barrels close above you rolling your way, try to steer them again down the two ladders to your right. However, because steering to the right could place you in the 'danger zone' for being hit by bombs, it is preferable to wait uphill of the ladder if you need to steer so that you can run to the right and still stay safely out of the zone. If you try to steer by perching on the ladder and merely holding right, realize that you may need to quickly climb down if a wild barrel is thrown your way.

If barrels do end up rolling all the way to the start of the 4th girder (the uphill end), it is safest to jump them with a standing jump when possible, as it requires less coordination—especially if a wild barrel is thrown your way. Just remember, if you do jump, make sure not to hit your head on any rolling barrels on the girder above you! Also, not doing front or back jumps keeps you from accidentally jumping through the zone where 'bombs' are thrown. However, if you find that there are no rolling barrels blocking your way, *and* it is at the appropriate time in Donkey Kong's barrel release cycle, you may also find it best to simply immediately climb the short ladder as soon as you reach it.

When it is decided that the coast is clear enough to climb the ladder, one ought to time the climbing of the ladder pretty near with when Donkey Kong grabs a new barrel and is placing it in front of him. This timing allows you the most time to both 1) climb the ladder, and 2) get below the hammer if the barrel is not wild. However, this is also wise because it keeps you from becoming trapped on the ladder with no way of either moving up or down in order to avoid a wild barrel if it were to be thrown your way. Once Donkey Kong holds a barrel out in front of him, if it is going to be a wild barrel, it will be released immediately. However, if it is not a wild barrel, Kong will first pause for a short while, before then (continuing with his normal cycle) turning to the right to roll the barrel instead.

Grabbing the Hammer and Moving Right: Once you reach the top of the ladder and are on the 5th girder, the next step is grabbing the top hammer. If you climbed the longer ladder for some reason (maybe a fireball forced you to), you will need to cross directly underneath Donkey Kong. Try to watch the barrels Donkey Kong is grabbing to see as soon as possible if any are going to be wild. If he does throw a wild barrel, the best you can do is try to react and maybe run to the right if the coast is clear. However, just like traversing through the danger zone on the 4th girder, during these levels, anywhere but directly below Donkey Kong (where he throws his 'bombs') is relatively safer. If you climbed the left ladder, you simply need to quickly get underneath the top hammer.

Once you get below the top hammer, you'll often need to wait (just like you did before climbing to the 5th girder) in order to make sure you time your jump as soon as you know he isn't throwing a wild barrel. Jumping blindly adds the risk of being stuck in the air with absolutely no chance of dodging a wild barrel if it is thrown your way. If you are below the hammer and rolling barrels are coming your way, try to grab the hammer so that you get it before the closest barrel reaches you. Grabbing the hammer before or at the time the first barrel rolling towards you reaches Kong's broken ladder is appropriate. If a barrel is passed this point, however, you will need wait and grab the hammer while jumping the on-coming barrel. If you try grabbing the hammer in

between these positions you risk the barrel hitting you before you have the chance to swing the hammer down to smash it. Since the safest time to grab the hammer doesn't always coincide with the timing of the rolling barrels, understand that this is also risky. If a situation occurs where you are waiting to grab the hammer and Donkey Kong *does* throw a barrel at you, as you try to dodge it, remember that a well timed wall-jump off of the invisible wall to the left is always an option that may help.

After the hammer is in your possession you will need to repeat the same process of keeping an eye on Kong as you make your way back right. Though the hammer doesn't make you 100% invincible, it does bring you significant security. Realize that since you must stop before hitting any rolling barrels, you'll want to time your movement right to make sure you don't get caught pausing to smash a barrel while you are in the danger path of the 'bombs'. If a wild barrel is thrown at you that you have no way of avoiding by going either to the left or right, you will have to chance it by trying to smash it while it is in the air. However, if you do barely avoid a wild barrel, keep in mind that there is a chance of the barrel bouncing off the girder into your feet instead. In this situation you might also have to swing around and try to smash the barrel before it does so. As you pass under the broken ladder, make sure that you time this precisely, as you do not want to end up passing under this ladder at the same time as a barrel that is passing by the top may steer down through your hammer and hit you on the head. Having timed your movement under Kong and passed the broken ladder, you should keep moving to the right with the hammer until you reach at least as far as Pauline's ladder, which is located on the 6th girder. Any further to the left may place you in danger of Type 2 wild barrels. From here, simply wait for an opportunity to climb up to the top girder (after the hammer has expired), steering barrels down the ladders to the left, if necessary.

Level 3-4: For these levels, the process of going from the middle of the fourth girder to the top hammer, and then to the top right corner of the screen (safe from wild barrels) is very similar to how one would do it for levels 1 and 2. However, the main difference is that the wild barrels on these levels will primarily be Type 2 -which are more aggressive and can heat-seek

Jumpman. This fact changes the safe spot locations slightly, as well as whether or not they are 100% safe.

Moving Left: Unlike on levels 1 and 2, the location just above the middle ladder connecting the 3rd and 4th girders is not a safe spot on levels 3 and 4. However, it is significantly safer a couple Jumpman widths to the left, due to Jumpman's position being just a little to the right of any Type 2 wild barrel that might be thrown's first bounce on the 5th girder above. If Jumpman is positioned just to the right of the location of furthest reach for a Type 2 wild barrel's first bounce it will naturally cause the wild barrel to steer over Jumpman's head to the right. However, this location is not 100% safe. If the initial throw is shallower than normal, it will be necessary for one to scoot over a bit more to the left to effect the same result as before.

Steering Down the Broken Ladder: Just like on levels 1 and 2, the main process of moving left consists in steering away troublesome barrels and groups of barrels on the 5th girder down the broken ladder to the right. Once the same sort of beneficial opening one would seek to create on levels 1 and 2 is attained, it is time to move left.

As mentioned earlier it is not ideal for a beginner to perform front jumps while moving left unless it is required to stay alive. Again, also remember not to steer the 6th girder barrels down the broken ladder connecting the 5th and 6th girders. If a wild barrel is thrown while moving left, try your best to steer it right. If all else fails, try to jump out of the way as it shoots for you. Remember to also watch out for the bounceback once it hits the 4th girder, as Type 2 wild barrels will really try to nip you in the feet!

Waiting and Climbing: One of the changes that happens once you get to these levels is that the barrels above you are going to be more steerable. As you move into position to climb a ladder, it will be even more beneficial, as you are waiting, to steer barrels out of the way above you. However, don't take too long, as the wild barrels that are

thrown on these levels are also slightly different.

The wild barrels on Level 3 and 4 are going to be more aggressive and heat seeking. Though they do not come out any more frequently than the ones on levels 1 and 2, they will not bounce in a random direction when they hit the girder directly above you. Instead, these wild barrels will redirect so they are heading towards you; sometimes, seemingly, very quickly. If you aren't ready for them, being near the two ladders below Donkey Kong can be a death trap. You will always need to be ready to utilize the techniques of dodging and steering the wild barrels if they are thrown. However, for the same reasons as on levels 1 and 2, slightly uphill of either of the ladders are going to be generally safer in terms of avoiding rolling barrels on levels 3 and 4. Similarly, directly below Donkey Kong is gonna be slightly more dangerous due to the "bombs" he may drop. You will want to climb as soon as you can do so on these levels without wasting an opportunity. There's no need to delay and keep pressing your odds with the aggressive wild barrels.

Use the Short Ladder: Just like on levels 1 and 2, the short ladders is most preferable. Because of the relative lengths of the ladders and the fact that the Type 2 wild barrels on these levels are heat seeking, it is going to be significantly safer to climb the left ladder. However, you will *definitely* need to worry about retreating as quickly as possible if a wild barrel is thrown. On levels 1 and 2 there is always the chance that a wild barrel might just be thrown in a completely different direction away from you. However, this is not the case with Type 2 wild barrels. It is easier to retreat down off the leftmost ladder, since, if you are able to steer a wild barrel to the right from this position (which is impossible while on the right-side ladder), the barrel will be sent safely, well over Jumpman's head. Additionally (also due to the location of the ladder), this ladder gives the wild barrels less of a target to hit, since Jumpman is thinner than he is tall (which his hitbox mimics). Lastly, because this ladder is offset to the left, the wild barrels will be easier to react to, since they are less aggressive traveling to the left as to the right. As usual, watch Donkey Kong's release cycle and

start to climb as soon as you see that the barrel he is holding in front of him is not a wild barrel.

Grabbing the Hammer and Moving Right: These levels will follow most of what we have said concerning levels 1 and 2. However, on these levels, if any wild barrel is thrown, the player can know for certain that it is actually going to aim right for Jumpman while he is to the left of Kong. Just like with Type 1 wild barrels, there is no safe spot under the hammer, however, in this case, there is not even a chance that a wild barrel, if thrown, won't go straight for you! because of this, one needs to be all the more ready to dodge wild barrels as they wait to get the hammer. Once the hammer is in Jumpman's possession, the same process for moving right applies as on the earlier levels. Always watch Donkey Kong. Don't run all-out because barrels can sneak under the hammer as you walk under him. Don't get stuck smashing barrels at a bad point in his cycle right while in the danger zone of bombs. Also don't run under the broken ladder at a bad time either. Your goal is to wait under Kong's foot, and then once you know that the barrel that Kong is showing is not a wild barrel, then begin to run to the right.

However, are two significant differences when dealing with the Type 2 wild barrels on levels 3 and 4. One real difference will be the new threat of wild barrels bouncing off the 5th girder towards your feet. On the previous levels this bouncing was more random and much less targeted towards Jumpman's position -yet still a threat. On levels 3 and 4, however, they will always bounce towards you. The two real ways to deal with this will be to either outrun a particular wild barrel's bounce-back, or else quickly spin around and smash the wild barrel as it bounces towards your feet. Each of these methods is best suited for certain situations, so it will require some experience with these various situations before the player becomes an expert at surviving them. Sometimes, though, a wild barrel will be released such that you may out-run the initial throw, but such that it is both impossible to outrun or smash the bounceback (due to the bounce taking place between the head of the hammer and Jumpman). Once a player gets a feel for spotting when this sort of situation is about to happen, the best choice of action will actually be to chance it by not trying to outrun

it and instead trying to smash the wild barrel while it is initially in the air.

Another significant difference in this process on these levels is that there is a 100% safe spot from Type 2 wild barrels on the 5th girder! If Jumpman is positioned just barely to the right of the bombs' danger zone, directly below Donkey Kong's right foot, then all the barrels will be thrown either nearly straight down to the left or a wild barrel to the right and over the head of Jumpman. Not even the bouncebacks produced by these two possible angles can hit Jumpman in the feet! So, if there are fireballs or barrels slowing your path to the right, know that there is always this point that can be used to pause and clean up the obstructions. This location may also be used to time when it is safest to make a dash for the right side of the girder. Do a normal check to see if Kong will be throwing a wild barrel. If he is not, then quickly move right and out of the way of any potential Type 2 wild barrel's reach.

All in all, the changes in the types of wild barrels that will be thrown is going to be the biggest difference in these levels. The extra steerability of the barrels above you, though helpful, is not going to completely offset the extra danger these more aggressive wild barrels pose. The player needs to be prepared for the added difficulty to these screens and understand that the biggest place where this difficulty presents itself is going from the 4th to 5th girder.

Level 5+: For level 5+, moving from the 4th to the 5th girder will likely be the easiest it will be all game. Because Type 3 wild barrels are less aggressive as well as steerable, safe zone's utilized in this process will be at their safest levels

Waiting and Climbing: On Level 5+ the rolling barrels will be the easiest to steer. Because of this, make as much use of steering barrels down the ladders down hill of you. Also, the wild barrels on Level 5+ are, ironically, the safest of all the wild barrels. Though these wild barrels always target Jumpman (they aim at the location half the remaining distance to him between at the time of each bounce) they do not wildly overcompensate for if he has moved, which makes them

very easy to avoid. A consequence of having much mellower wild barrels is that you can take your time while waiting for an opening to climb.

Another interesting consequence of the way Level 5+ barrels track Jumpman is that it is 100% safe to climb the right ladder so long as you are on the ladder when the wild barrel is thrown. Many top players climb up only this ladder on Levels 5+ simply because they will never have to deal with retreating like they would with the short ladder. The right ladder is also a good ladder to climb, if one so chooses, because it is often closest to where Jumpman ends up if one is constantly having to retreat from between the two ladders due to rolling barrels refusing to steer.

However, the left ladder also has its benefits. If one is careful at timing the climb and knowing when to retreat, this ladder can be very safe as well because it both 1) gives you 3 ladders to your right to steer barrels down (more than just 2, if you use the right ladder), and 2) it keeps you farther away from Donkey Kong, and, thus, gives you more reaction time to avoid wild barrels (especially the 'bombs') when you traverse under him to get to the side with the hammer. If one climbs up the right ladder, one must be all the more cautious when crossing under Kong to the top hammer.

Grabbing the Hammer and Moving Right: Once you are under the hammer, on levels 5+, it is helpful to know that you will never need to avoid a wild barrel by doing a wall-jump. Since the Type 3 wild barrels will basically land at your feet when in this position, give yourself some room at the end of the girder to move left some more in the case that a wild barrel is thrown your way. Additionally, the wild barrels on these levels have much less bounce-back, than on the previous levels, so you will have less trouble worrying about getting hit in the feet. Just be careful not to pause while smashing barrels in bad locations while crossing back to the right under Donkey Kong (like always) and make your way to the last ladder and out of danger. Use these levels to really perfect timing your movements to the proper point in Donkey Kong's release of rolling barrels, since these barrel screens are much

safer than levels 1-4 and you will be playing them the most. Be a stickler about being very precise and intentional in your placements and movements.

Areas to avoid: If you've read up to this point, it is pretty clear that there are many locations on the barrel screens that you *do not* want to be caught in given particular circumstances (directly below Donkey Kong when he throws a wild barrel or in the 'bomb' zone are examples). However, the three locations given below are additional places you'll want to try your very best to avoid until you have become considerably good at coordinating the barrels on your own girder as well as the girders above you. But, even then, these locations still pose significant enough dangers to even the skilled player that we suggest generally avoiding them altogether during Killscreen attempts.

Left side of the 3rd girder: This particular area poses many potential threats due to the fact that there are 3 ladders to the right as well as two of them being closely space together. The fact that, at any moment, barrels might either be unintentionally steered or just go down these ladders on their own, resulting in a complex or unjumpable grouping of barrels, simply poses too significant of a risk for the beginning player. Even if the groupings formed are jumpable, there is often too little time to anticipate what actions must be performed (or even too little room to even consistently perform them), so one often dies anyway. Adding in the chance for "bombs" and wild barrels (of all types) only makes this location even more dangerous. Even the most skilled players avoid this area due to how dangerous it is when there are many barrels on the screen. Only ever traverse this area if there are no other options (e.g. a fireball chases you there), and if you do, get out of it as soon as you can. Try to make your way to the uphill side of the middle ladder. This is actually why it is suggested that the beginner use the long ladder when climbing from the 2nd to 3rd girder -even though it is the longer ladder, in this case- since it avoids this area altogether and sets you up nicely for the next ladder (whether this is immediately climbing it or just getting to its uphill side more quickly).

Right side of the 4th girder: This location is much the same as the left side of the 3rd girder in that it is dangerous because it has 3 ladders to the left of it. Bad barrel combinations can be made if one lingers too long on the right end of this girder. Though this area is still deemed to be too risky for a

beginner, it is much preferred to the left side of the 3rd girder since it neither poses as much of a threat of wild barrels (Type 2 can still reach you though!) nor are there two ladders close to one another directly next to this location. If you find yourself here, try to at least get the left side of the broken ladder as quickly and as safely as you can. If Type 2 wild barrels are still a threat, you'll have to make your way even further to the left side of the girder and into a safe spot.

Below Ends of Girders: Generally speaking, being near the ends of the girders above you is also not a good place to be. The reason for this has to do with the fact that you can often get trapped in this location by barrels threatening to roll down the short ladders as well as rolling off the edge. Often, it happens that one won't know if they will be able to steer barrels out of the way and immediately climb up to the next girder or if one will have to wait uphill of the ladder. If you get stuck having to wait to climb, many times you will find that, right when you need to jump a barrel on your own girder, there will be a barrel directly above you. If you don't jump, you'll be hit from the side; but if you do jump, you get hit in the head. Much of this situation's difficulty arises simply out of the fact that waiting below the end of the girders is a very cramped location and doesn't allow much time for planning and seeing what you'll need to execute. This is why climbing the middle ladders is generally most preferred lower down on the screen.

Things not to do: Part of minimizing one's chance of death in Donkey Kong comes from simply not making easily-preventable mistakes. Many time, one may look back on deaths in the past and start to see general patterns behind what caused them. There are many ways in which this can be true of the Barrel Board. Below are a few of the most important actions to refrain from in order to save yourself from a lot of deaths while on your quest to the Killscreen.

Rushing: Remember that Donkey Kong is not a speed run. Though it is often to your advantage to play quickly, don't make trying to go fast your main objective. As a beginner, your main objective is safety, so don't get caught up trying to cut every ladder climb close, barely avoiding a barrel. Some situations call for using the long bonus timer to your advantage by not needing to rush. When you are not yet confident in your abilities, it is generally better to wait things out until you feel comfortable than to throw caution to the wind and run headlong into trouble.

Running with the hammer: When you take the top hammer, it is very important to stop running when you're about to smash each barrel. This is for the simple reason that when you run with the hammer and try to smash a barrel, the barrel can easily pass through and hit you (due to Jumpman alternating swinging the hammer up and down). By stopping a little bit before smashing each barrel, one can prevent this from ever happening, as the barrels, on their own, do not have enough speed to make it all the way through Jumpman's hammer before he is able to smash them.

Grabbing the Bottom Hammer: This has been said before, but it is good to reiterate that, since the goal of this manual is to help one reach the Killscreen (and not to get the most points), it is advised that one generally never grab the bottom hammer. Grabbing the bottom hammer can add a significant amount of risk to your game. Only ever grab the hammer if you are in a dire emergency that demands it (which is very, very rare, if you are playing properly), such as a fireball climbing up to the 2nd girder before you are able to climb to the 3rd girder, or if you are on Level 4 and want to wait for the Internal Difficulty to change to effect the easier, Type 3 wild barrels.

Rejumping/Leeching: "Re-jumping" means to jump a barrel or group of barrels and then go down a platform to jump the same barrel/group of barrels again. In a game where someone is using a point-pressing strategy, this is a legitimate option, but for a beginner it ought not be done since it increases the risk of deaths quite a bit. Never try to climb down a ladder on a barrel screen unless you are retreating and really have to. The only reasons why you should maybe climb completely down a ladder is if there is either 1) a very complicated combination of barrels coming your way, or 2) if a fireball is chasing you and you have no choice but to go down in order to avoid it. However, when you are "running boards" properly (i.e. without wasting time), it is rare that the fireball will be bothering you, since you will be likely climbing way faster than the fireball.

"Leeching", on the barrel stage, refers to trying to get points by jumping either near fireballs, wild barrels, or barrels going down ladders. This is also quite risky, not only because it is harder to execute, but because it can often put you in situations that are dangerous. Often times, if you get too caught up in leeching, you can either lose track of time, get cornered by barrels or fireballs, or simply lose focus because your game is becoming too long. When you are a beginner, it is best to make it easy on

yourself with getting to the Killscreen. Leeching only makes things harder, take longer, and more complicated. Keep it simple: Just run the boards.

Sitting on Ladders: It ought to be said here that sitting on ladders is a very bad idea. When someone is new to Donkey Kong it is easy to assume that if you are on an unbroken ladder you are safe from barrels (since new players often assume that the barrels might only go down girders and broken ladders), when, in fact, you are not! In the older Japanese version of Donkey Kong, sitting or waiting on the ladders was safe (when done in a particular way). However, the game's programmers came out with a newer version of the game that made this no longer the case. This was meant to make the game harder so that the arcade owners back in the day could make more money from the game. Now, instead of ladders providing a 'safe spot,' the programmers adjusted the code so that if Jumpman is on a ladder, the fact that his horizontal position is the same as the ladder will actually "steer" the barrel instead. Because of this, when Jumpman is on a ladder, the probability that a barrel might go down the ladder is increased, thus making being on a ladder another way in which barrels may be steered. However, it is advised that the new player never try to steer barrels in this way, since only the very best Donkey Kong players are even able to consistently use this for their advantage. Use this information as a reason to never get caught on a ladder with barrels both above and below you. This is about the most riskiest situation one could ever end up in on the Barrel Stage because you literally have no control over your fate. This type of error is one of the most crucial things that *must* be eliminated from your game-play if you are to ever make it to the Killscreen.

Conveyor Screen: The Conveyor Stage is a unique screen in that it has both conveyors and retracting ladders. Since the main enemies in this stage are the fireballs, even if one masters this stage, there will always be the threat of dying to very bad randomness (i.e. "screwings"). Only 19 out of the 117 screens are Conveyor Stages, so at least you don't have to make it through as many of this screen as the number of Barrel Boards!

Letting the Fireballs Spawn: At the beginning of this stage the fireballs will start to spawn from the center oil can in the direction of Jumpman. It is crucial for both beginners and experts alike to let the fireballs spawn on one side before crossing over the middle of the screen to the right. This helps keep all the fireballs to one side for a longer amount of time. Fireballs will continue to spawn every so often until there is a maximum of 5 fireballs on the screen. The number of fireballs that spawn in the first few seconds of the screen is equal to the number of the level you are on. So

make sure to keep track of the level and let all of the fireballs spawn before crossing over to get the gift on the bottom.

The 'Free Pass': A 'free pass' is when the player is able to navigate Jumpman quickly up the ladders to the top right side of the screen without being delayed/blocked by any of the fireballs. Making sure to let all of the fireballs spawn on the left side of the screen at the beginning of the stage is the most helpful thing one can do to try to cause this to happen. Many times you will still get blocked even after letting the fireballs spawn to the left side, but, thankfully, there are still other methods to passing this screen. With proper execution, the 'free pass' can happen a significant percentage of the time on this screen. However, a word of caution: Make sure never to climb a ladder if it is possible that you will get blocked by a tray/pie below and a fireball above. One should not throw caution to the wind trying to only go for free passes. It is always better to keep yourself in situations where you have more control over whether or not you live or die.



Fireballs on Top: The main goal of the Conveyor Screen is to get up to the conveyor level where Donkey Kong is located. This is how you pass the stage. However, fireballs can also climb up to this platform as well. Once fireballs climb either of the retractable ladders up to this top conveyor, they cannot come back

down. Therefore, one need not be afraid of having fireballs descending on you when you are waiting on the retractable ladders. Once you are waiting on the retractable ladder, simply wait for an opening to climb. Another important piece of knowledge is that fireballs travel faster to the right than they do to the left. Because of this, after a while the fireballs tend to congregate near the top of the right retracting ladder. If you have the choice, it is generally preferable to therefore try to climb the left retractable ladder when there are multiple fireballs already up top.

Waiting it out: Unfortunately, the Conveyor Stage is not always easy. Sometimes a Conveyor Stage can be quite easy due to getting a 'free pass', however, other times you won't even have the time to reach the middle platform, since the fireballs will already be chasing you down. There are several different ways a player can safely deal with this type of situation.

Bottom Hammer: One way you can deal with aggressive fireballs (or ones that are simply blocking your way) is by grabbing the bottom hammer. While you wait for the fireballs to descend, or move off from the middle platform, clear up the conveyor of pies so that you have less obstacles to overcome. If a fireball does come down, if you feel as though you still have enough time left on your hammer, you can try to smash it. However, when you smash the fireballs you must be careful not to run into them. When Jumpman is moving in the same direction as a conveyor, just like barrels on barrel screens, it is possible for fireballs and pies to sneak under the hammer and kill him. This also holds true even if the fireball is on a ladder. Try to pause just before smashing objects while moving with the conveyor. Another thing to be mindful of is where the fireballs you smash will respawn. Fireballs will respawn on the same side that you smash them on, so try to smash fireballs as best as you can as to still leave an open path to the top on one of the two sides.

Retreating: Sometimes you also don't even have time to grab the hammer safely. Maybe the fireballs came down too fast, or maybe there are too many pies in the way, either way, the player will inevitably find themselves in a situation where the best thing to do is just retreat to the bottom girder. When this happens, the key is to be patient. Very rarely will the random elements of the game work so strongly against you that you won't have a way out. As you are on the bottom, try to wait for the fireballs to climb back up to the top while keeping as much distance from them as you can. Sometimes they will even come down to the bottom level with you. At this point, you will need to learn

how to multitask watching the fireballs and also for an opportunity to quickly climb up out of trouble. With enough practice, this won't be too difficult, but, at first, it will feel quite daunting.

Getting the Gifts: Since you are merely trying to survive, don't get tempted into trying to get all the gifts. If they are on your way to the top, by all means, get them, but just remember your main goal of survival first. Sometimes, when you are retreating to wait, or if your death is imminent, then you might as well grab a gift or two -but try your best to still be alert for any opportunity of escape. Most of the time the parasoul on the right platform is safe to grab, unless for some reason it would be to your advantage to just go up the ladder and save the extra time. This is especially true if you are racing a fireball in order to preserve a free pass.

Top Hammer: There is also a second hammer on the middle left side of the Conveyor Stage . It is recommended that a beginning player only grab this hammer in the event that they are forced to the middle left platform and are in danger of being descended upon by a fireball or fireballs from the top left conveyor. Basically, only ever use this hammer for defense. It is also important to never use this hammer to reach across the gap to the right and smash fireballs on the middle platform. This will only cause the fireballs to spawn to your side on the conveyor above you, and thereby, further add to the risk of a fireball descending upon you once your hammer runs out. Just leave them be and hope these middle fireballs wander away.

Elevator Screen: The elevator screen is the least random of the 4 different stages in Donkey Kong. The fireballs can't chase you around the entire screen, and there are basically only 3 types of springs that one needs to learn to recognize. However, for a beginner, the Elevator Stage can be a big nuisance, as it takes a considerable amount of hand/eye coordination and fast reaction time once it reaches its highest difficulty on Levels 4+. Eventually, though, the elevator screen will become a screen you should expect to never die on if you hope to achieve the Killscreen.

Passing the first fireball: The first main difficulty of the elevator screen is learning how to get past the first fireball. Jumpman starts in the bottom left corner of the screen on his own island of 3 connected platforms. Likewise, just to the right is another island of 2 connected platforms, which is guarded by a single fireball. This fireball is the only significant threat on this screen that a beginner will need to worry

about -other than the springs and falling.

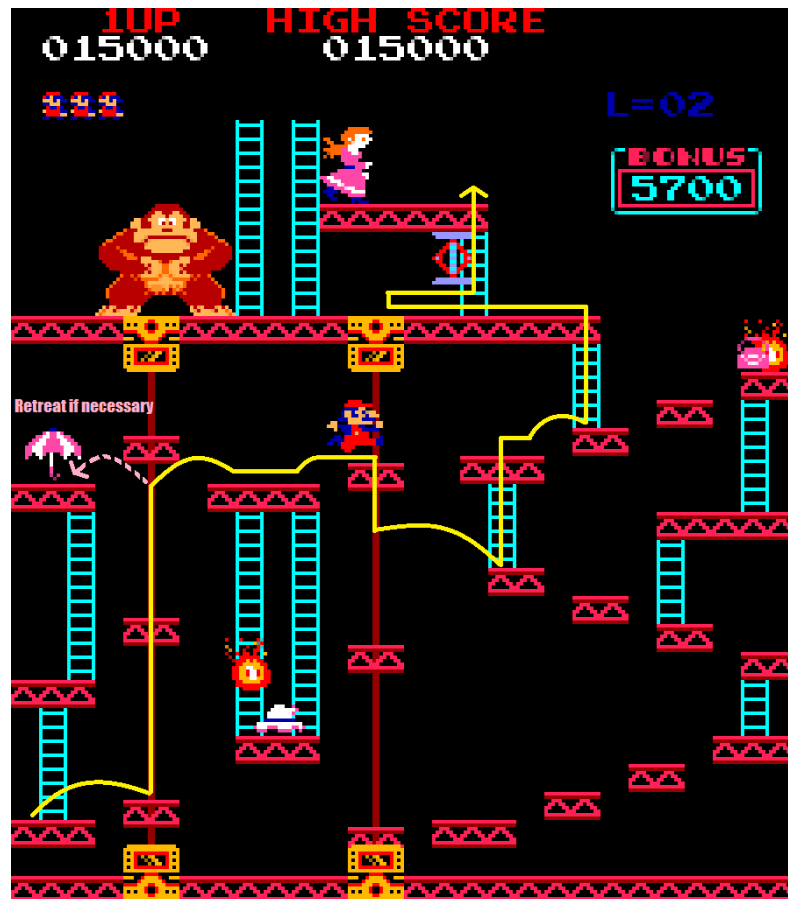
Getting onto the middle Island: In order to get to the ‘down elevator’ on the other side of the island that the fireball is guarding, the player will need to be able to safely land on the middle island from the Up Elevator. There are several ways this can be done. However, due to the fact that it is strongly advised that anyone wanting to Killscreen the game take the ‘shortcut’ jump, the ultimate goal will be to reach the topmost of the two middle platforms guarded by the fireball. One may choose to ride the Down Elevator all the way to the bottom and proceed to take the long way around, but this is not advised, since it is longer, riskier, and unnecessary -so long as one learns merely the one small skill of the “super jump” (more on the “super jump” later).

From the bottom: One way is to simply jump on the Up Elevator from the very bottom-left platform and ride it all the way up to the top (if necessary), looking to jump on whatever of the two islands that the fireball guards is open. You can jump on the bottom platform if it is open and have the added bonus of being able to get the bottom prize, as well as the option to choose to either 1) wait for the fireball to descend, and then use the free ladder to climb (if one wants to take the ‘top’ route), 2) jump back on the Up Elevator, or 3) take the ‘bottom’ route by then jumping onto the Down Elevator and using the stair-step platforms (not advised). However, if the bottom is blocked, simply ride the elevator up and get off on the upper island.

From the Middle: Another way is to wait on the middle of the leftmost platforms until the fireball descends. Then, quickly, jump onto the Up Elevator and immediately jump onto the top platform of the two middle islands. This is probably the simplest and the safest, therefore it is most advised.

From the top: Lastly, one can, with good timing, jump across from the top of the 3 leftmost platforms. Just like from the middle platform, wait for the fireball to descend, then quickly jump onto an Up Elevator platform while it is a bit below your own platform, then immediately jump onto the top middle-platform. Be careful, since you can either

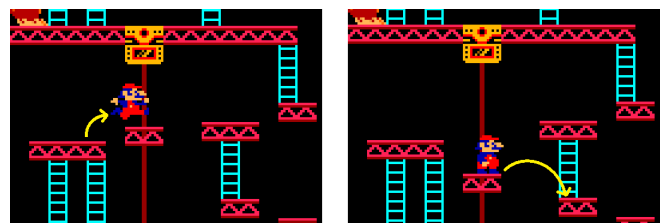
jump too early (from the top-left platform) and fall too far -or else you can jump too late and end up hitting your head or get crushed on the Up Elevator pulley (one of the dangers we mentioned earlier). One will also need good timing in getting off of the Up Elevator as well. If you



jump too late, you can fall too far and perish. Because this method takes more precise timing, it is not advised for the beginner.

The Bottom Gift: As you can see, there is a prize at the base of the long ladders on the lower platform of the fireball's 'island'. This bottom gift is for the purpose of adding points, so it is not essential, and it can sometimes be very risky for a beginner to try and take it, since the point is merely to get to the Killscreen -and not to gain the most points. Only get it if it is basically on your way to completing the stage.

Shortcut Jump: There are ultimately two routes that one can take to pass the



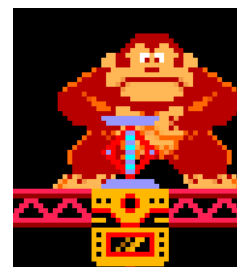
middle portion of the Elevator Stage. The first route is to take the Down Elevator all the way to the bottom and take the stair-stepping platforms up to the top while dodging the falling springs. This is the hard way and is not recommended for the beginner. The easier of the two ways consists in doing the 'shortcut jump' and taking the top route. To execute the 'shortcut' jump, one needs to first situate themselves safely on the top-most platform that is guarded by the first fireball. Wait for a Down Elevator platform to appear from the pulley above, then jump onto it as soon as you can. Next is the hard part, but it will eventually become easier and easier and will ultimately be much safer than taking the bottom route: The player will need to make Jumpman jump and land on the lower of the two platforms to the right that are connected by a ladder; that is, the platform at the bottom of the ladder just to the right of the top of the Down Elevator. To make this jump, Jumpman needs to jump from the far right edge of the Down Elevator while the platform is about 1 platform width higher than the platform he will land on. This will take some practice, as jumping either too early or too late will cause Jumpman to hit one of the ledges and fall to his death. However, this trick is more than worth it. In no time, it will become second nature.

Skipping the Top Gift: The top gift is located to the top right of the stage. On stage 1 to 3, this gift is possible to get for a beginner, but from levels 4 on it becomes quite difficult. However, for a Killscreen attempt, it is simply advised that one just never try to get this gift. It is unnecessary for this goal and adds too much risk.

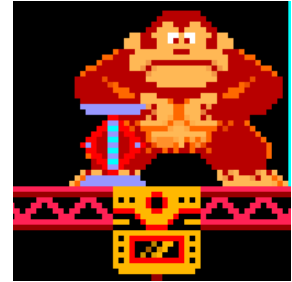
Passing the Springs: The final part of the Elevator Stage is one of the hardest parts of Donkey Kong -especially for beginners. Though there are methods that can help someone pass this part, theoretically, 100% of the time, since it requires such quick recognition and hand-eye coordination, even the best players occasionally die here. The first thing to recognize is that not all the springs are the same and that they come in 3 general types.

The Different Spring Types: The three types of springs can be generally differentiated by where they land in relation to the first yellow pulley system (the one above the Up Elevator). They are the long, medium, and short spring types.

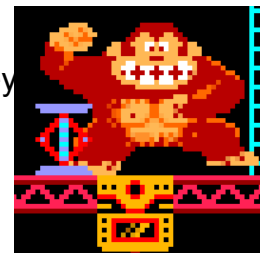
Long Spring: Long springs land entirely on the yellow pulley system.



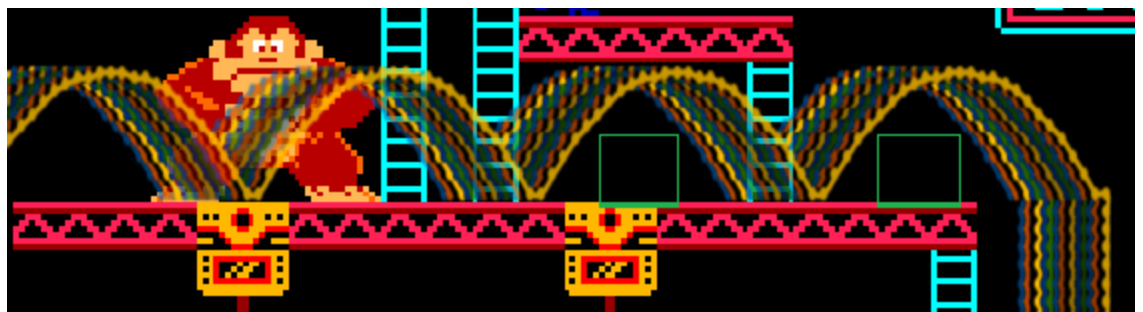
Medium Spring: Medium springs land pretty much right on top of the left side of the yellow pulley system.



Short Spring: Short springs land either completely or mostly to the left of the yellow pulley system.



Safe Spots: It is also important to know that there are two safe spots on the top platform where the springs bounce. The first safe spot is just above the ladder you climb to get onto the platform and it extends a little bit to the left. The next safe spot is above and a little off-centered to the right of the Down Elevator's pulley system.



The proper method: The allowable methods to passing the springs changes up until Level 4, as the springs slowly become faster and faster. In general, you will want to wait in the first safe spot until a correct spring appears that allows you to move left to the 2nd safe spot. Then you will wait in the second safe spot for a chance to climb the ladder (however, you may have to retreat back to the 2nd safe spot in some cases).

On Level 2: These springs are not very fast. People don't usually die

on stage 2 springs since they are very slow. Wait in the first safe spot for a spring to bounce in front of you (doesn't matter the length), then, as long as you have good timing, you are safe to immediately climb the final ladder without getting hit. There is no need to move to the 2nd safe spot unless you aren't sure if your timing was good enough. If you have to wait in the 2nd safe spot, wait for a spring to bounce over you and then follow it closely and then climb the final ladder.

On Level 3: On this level you will need to utilize the 2nd safe spot. Wait in the 1st safe spot for a short spring before traversing left to the 2nd safe spot. In order to be able to climb the ladder, wait for a long spring before moving back right. Follow the spring closely and you should be fine even if a second long spring comes after it. If you doubt your timing, just retreat back to the 2nd safe spot and try again. It helps to situate Jumpman so that he is half and half above the right edge of the Down Elevator pulleys. Because of how the hitboxes work, springs can actually pass through a large amount of Jumpman's face without killing him, so, at this point, you'll need to start getting used to how much contact with the springs does and doesn't kill him. For example, as long as your feet are touching the right edge of the pulley, even if it is only your heel, you will be safe. No matter where you finally decide to stand, do it consistently and make sure you know the right moment to begin your jump towards the ladder on the right. Obviously, the farther to the left you are, the sooner you will have to begin running in order to maximize your movement to the right.

On Level 4+: On these levels you will need to have a good timing running left after a short spring in order to safely make it to the 2nd safe spot. The next part starts out the same as on Level 3: You'll want to make for Pauline's ladder on a longer spring. However, if the next spring is long or medium in length you **MUST** retreat. Wait in the 2nd safe spot and make sure you are calm and composed before trying again. Keep running on a long spring and retreating unless the next spring is on the shorter side of the spectrum. However, if the second spring in the pattern happens to be *very, very short*, it is advised that one also retreat in this case. This is because of the fact that, since these particular springs are so short, they will actually be able to bounce up early enough to hit Jumpman on his right foot -as opposed

to how all other springs hit Jumpman's left side. Because of this, it is important to have very good focus on seeing what type of springs you are running on. It is also likewise important to make sure you always adjust and get the best timing in following the first of the two springs. Situating Jumpman right above the right edge of the Down Elevator pulley and getting used to how closely you can follow springs is very helpful for passing this section. It will take a lot of practice, but most players are able to figure out what works for them -whether it is not watching Jumpman at all and only watching the springs as they appear on the screen, or if it is focusing on Jumpman and using one's peripheral vision to see what type of spring is coming next (long springs tend to loft into the the side of the screen, while shorter springs then to fall into the screen).

Rivet Screen: The Rivet Stage is a very dangerous board if you are unprepared and run around without any real plan. There are two main patterns -as well as several backup patterns- that can be used to help increase one's chance of surviving this screen. Since the only real danger on this stage is the firefoxes, it will also increase one's odds if one learns important aspects of the firefoxes' behavior within the game.

Fireball Behavior: Firstly, one needs to learn the nature of how the fireballs act on this board. This includes how they spawn/move and also the nature of their freezing cycle.

Initial Spawning/Movement Speed: Firefoxes can spawn on the outer edges of any of the lower 4 platforms on the rivets (but never the very top). There will always be a total of 5 firefoxes that will spawn on the screen at the beginning of the stage. Firefoxes will always spawn on the opposite side of the screen as Jumpman, however, what level platform of they will spawn on is not controllable by the player. While there is some variability in the time it takes for all 5 firefoxes to appear their rate of appearance is generally predictable based upon the current level.

Levels 1 and 2: It takes approximately 17 to 21 seconds for the firefoxes to spawn, as they spawn about every 4 seconds.

Levels 3 and 4: It takes approximately 8.5 to 10.5 seconds for the

firefoxes to spawn, as they spawn about every 2 seconds.

Levels 5+: It takes about 4 to 5 seconds for the firefoxes to spawn, as they spawn about every 1 second.

So, as you can notice, the deeper one is into the game the faster all five firefoxes appear, and, consequentially, the harder it is to clear rivets at the beginning of the screen.

Because of this, at the start of every Rivet Stage, we highly recommend that one stay to the left side of the screen. By doing this, the firefoxes will all initially spawn on the right side of the screen. This will allow you to have the most time possible to execute the patterns we will talk about later.

Along with the fact that the fireballs spawn progressively more quickly as you come to new levels, the fireballs also get faster in both their vertical and horizontal movement. Fortunately, the difficulty (how quickly they spawn and how quickly they move) tops out at Level 5. Every level after Level 5 the fireballs will spawn and travel at the same rate/speed as on Level 5.

Normal Movement¹: Though firefox movement is pseudo random (it is dictated by fast counters within the code) there are still some important, general rules that govern how they move.

Climbing/Descending ladders: One important aspect of how firefoxes move is that they will only climb or descend ladders if they approach them from the left. Additionally, they will only ever climb down a ladder if Jumpman is below them. Otherwise, if Jumpman is on the same level or above a firefox, they will only climb up. Both of these principles are carried over to when a firefox is in its 'freezing cycle', however, in the case of a 'freezer', you can know with 100% certainty that they will climb/descend the ladder to their

¹ Note: These fireball characteristics (their normal movement, as well as their freezing cycle movement) generally apply to both fireballs and firefoxes on EVERY board type -with the exception that fireballs that climb up to the top-most platforms of the barrel and conveyor screens can never descend back down to a lower platform.

right -so long as they don't leave their freezing cycle.

Freezers: Sometimes firefoxes will stop and stay in the same location for an extended period time; often unfreezing, bouncing back and forth, and eventually refreezing again. This is a description of what is known as the firefoxes' 'freezing cycle'. There are several important factors about the 'freezing cycle' that can be learned in order to gain an even greater edge for surviving the rivet screen.

Movement: Probably the most important thing to know about freezers is that they always move to their right first once they unfreeze. This can allow you to know that you can often sneak by them on the left while they are frozen. However, sometimes they don't move to the right all that much, so it will appear as though they actually are turning around and moving left, so be careful! Another important thing to know is that they stay frozen for about 5-6 seconds, however, the first time they freeze can be anywhere from 1-6 seconds. So, if they have just frozen, be cautious of running near their right side. If it isn't the first time they have frozen, then you can keep track of approximately when they will unfreeze and use this time to pass near them without any risk.

Climbing/Descending ladders: Just like when firefoxes aren't in their 'freezing cycle', firefoxes have certain characteristics to when/how they climb/descend ladders. All the rules that apply to normal firefoxes apply to freezers as well: Namely, they only descend ladders if Jumpman is below them. However, unlike unfrozen firefoxes, frozen firefoxes will *always* go up or down (depending upon Jumpman's location) the first ladder to their right that they reach.

Unfreezing/Refreezing Fireballs: Freezers also have the characteristic of immediately freezing again in place once they reach a new platform after they climb/descend a ladder, however, this is ultimately dependent upon the vertical location of Jumpman. In certain cases (when it is helpful) the player can keep this from happening. If a firefox is descending to the level of Jumpman, a player can make Jumpman jump just before the firefox reaches the end of the ladder so that he is above the firefox when he finishes descending the ladder. This will prevent the firefox from immediately

refreezing (and thereby blocking the ladder for a longer period of time). Likewise, this can also be done when a firefox is just about to finish climbing a ladder. The basic principle is that as long as you are *above* a firefox when it would normally refreeze, it won't freeze. To refreeze firefoxes, it is (almost) the opposite: If Jumpman is on *the same level or below* a firefox when it would normally refreeze, the firefox will *always* refreeze.

Trapped freezers: A final important aspect to know about freezers is that since they always go to right after they unfreeze, if they are frozen on a ledge with no ladders for them to climb to their right, and if Jumpman is above them, they will ultimately remain stuck on the ledge indefinitely. This can happen on the third platform from the bottom, in the middle, when the rivet on the right side of that platform is removed. Since the middle ladder is too far from the edge, once the firefox hits the ledge it will turn around and head left. However, it just so happens that there isn't enough time to get to the ladder, so it will come up short and refreeze. This cycle will repeat as long as Jumpman stays above the freezer.

General Micro-Strategies/Skills: While playing the Rivet board, one will begin to figure out a handful of useful tricks and strategies that can be applicable in a large variety of situations. Some of these strategies or skills can be employed frequently while still keeping in line with the more general strategies. These skills/strategies are like tools that one can pull out of their 'toolbox' at any time to help overcome the smaller problems and hindrances that get in the way of the larger goal. Sometimes they are merely preventative actions, meant to decrease risk, but other times they are simply realizing general truths about the nature of the Rivet Screen such that the player has a better grasp on the potential risks that lay ahead and that depend upon the various actions one might take. Anything that can give the player a small edge is helpful, however, these things just happen to be employable in many different contexts.

Closing Off Firefoxes: One of the most useful tricks for increasing the likelihood of surviving the Rivet Screen is closing off firefoxes from having a direct path to Jumpman. Because Jumpman can jump over rivet holes while firefoxes can't, removing select rivets can, at times, decrease the need to worry about certain firefoxes for either a short while or even indefinitely. In fact, the two main strategies for the Rivet Stage in general (described below) rely heavily upon this core concept. When you can remove a rivet so that

there is a barrier between you and threats, and if removing this rivet does not make a future plan more difficult, it is good to do so.

Headstarting on Ladders: Often times it is safe and helpful to get a headstart on ladders when trying to go up or down levels. Usually, people that are new to Donkey Kong tend to be very cautious, and because of this they never get used to the feel of the different speed that Jumpman moves while on a ladder as compared to when he is on the platforms/girders. New players will therefore tend to only get a feel for giving firefoxes an adequate cushion with respect to horizontal distance alone and not also in relation to the additional vertical distances. It is good to force oneself to push the boundaries with ladders as well so that you can always have the best head-start towards your next part in your larger goal. Sometimes just a little bit of a head-start can be the difference between seizing an opportunity and missing one.

Jumping Towards Firefoxes When Grabbing the Top Hammer: While waiting to grab the top hammer, it is often the case that firefoxes will linger so far away that a simple standing jump to grab the hammer might allow them additional time to escape up a ladder. This possibility can be greatly minimized by grabbing the hammer while jumping towards these firefoxes. This technique is most usable when jumping towards firefoxes on the right, however it may be utilized safely towards both sides if it is executed as firefoxes are descending to the 4th girder and are not yet on the middle platform -in fact, this is the safest time to use this strategy.

Delaying Unplugging Rivets While Using Hammers: Sometimes it is necessary to resist unplugging rivets while wielding hammers so as not to isolate oneself off from getting additional smashes. This skill is applicable for both of the hammers on the Rivet Stage. Most often, it is the with rivets on the right half of the screen that this comes into play. If firefoxes may potentially ascend or descend to the middle section of a given platform, and trapping oneself on the right side of the screen would come without equal or greater compensation in terms of smashes, then one ought to remain in the middle and try for the potential smashes there. However, if the hammer may not last long enough, it may be acceptable to finally cross over the rivet and gain the added protection of being sealed off from the firefoxes in the middle. Likewise, if the time left for the hammer is short, one may have to simply

settle for any fireballs that linger on the right side, rather than trying for even more in the middle. These principles can be circumstantial so it is important to constantly be evaluating the situation with all of these ideas in mind.

Smashing Ascending/Descending Firefoxes: One important skill to perfect is snagging firefoxes while they are still on ladders. Sometimes firefoxes will descend ladders while the hammer is low on time, so one will need to hit them before they reach the platform if one is to smash them at all. Standing directly under the ladder to try to get these smashes is not a 100% safe strategy, since fast firefoxes may still sneak through the hammer. However, standing just off to the side of the ladder (basically with Jumpman's nose touching the side of the ladder) allows one to safely try for a smash. Similarly, if a firefox is trying to escape by climbing a ladder, one may quickly run directly under them and try to catch them before they are out of reach.

'Drawing' Fireballs Down: One of the easiest and most useful micro-strategies for the Rivet Stage is going slightly below firefoxes in order to draw them down. Though going below a firefox or firefoxes does not guarantee that they will descend, if one were to stay on the same level or above them they would never descend -as it would be impossible for them to do so based upon how they are programmed. This tactic is very simple, since all one needs to do is tuck a toe slightly down a ladder and a firefox threat or obstruction might remove itself basically all on its own. This strategy is quite frequently used to get to the top hammer from the left side in the Weave Pattern, however, it can also be very useful in clearing the higher up rivets.

Refreezing/Unfreezing Firefoxes: One of the natural tendencies one will probably develop while playing Donkey Kong is to instinctively run away from firefoxes. However, it is important to know that firefoxes that are 'freezers' will always refreeze after climbing or descending a ladder -just so long as Jumpman is not above them. One can use this to their advantage by either staying equal or below a firefox that you want to refreeze, or, conversely, by getting above a freezer that you need unfrozen. Most often you will want to refreeze firefoxes if you need them to stay put so that you can get passed them to a rivet, ladder, or hammer. The times when you will most often want to unfreeze a fireball is when it is continuously blocking a ladder by freezing at either of its ends. Many times, all that will be needed to get above a

freezer is a well-timed jump.

Top Rivet Priority/Difficulty: Another piece of knowledge that is useful is understanding that the very top platform of the Rivet Stage is blocked in the middle by Donkey Kong. This, in turn, makes it the case that the top rivets are usually going to be the most dangerous rivets to remove. Whenever the middle section of a platform is obstructed by a normal firebox the options for avoiding fireboxes becomes severely limited -and this is essentially what Donkey Kong's presence up top is constantly effecting. To get the top rivets, one needs to climb, grab, retreat back down, go around Kong, climb up, then grab the other rivet -you simply can't get to them in one go, like you would prefer. Knowing that this difficulty exists, it can help the player evaluate situations more accurately and better decide what course of action needs to take place.

One Corner at a Time: An important principle to obey when freestyling is to not run around so much. Running around without actually doing anything significant wastes time. Because of this, you only want to skip rivets in a corner if you're absolutely sure you'll have time to come back for them when the situation is safe. Getting one rivet on the left side and then going right uses up too much time traversing the screen. The same thing goes for grabbing a rivet up top and then down below. You'll want to minimize as much backtracking you'll have to do as possible. Because of this, it is generally most efficient to work on one 'corner' of rivets at a time. By 'corner' is meant the literal corner rivets as well as the rivet closest to each of them, respectively.

Jumping the Final Rivet: When there remains but one final rivet, it is helpful to know that one has no need of also retreating after unplugging this rivet (as is the case when unplugging the other rivets previous). Because of this, it is possible to remove this rivet while also leaping over enemies. Doing this gives you an added advantage when clearing rivets that are guarded by fireboxes at the end of a screen. Since the stage will end as soon as the last rivet is unplugged, Jumpman will remain in the air and not land on the firebox(es) below him. This tactic can often be employed with the top right rivet, as it is most likely the final rivet to be removed and is also the rivet most likely to be difficult to remove due to guarding fireboxes.

Last-Ditch-Effort/Riskier Strategies: For situations where the timer is either low or one is surrounded by many firefoxes, there are also riskier -yet helpful- strategies one may employ to increase the odds of survival when the pressure is on. The suggestions below are definitely not meant for normal gameplay, as they entail too much risk on their own. However, they are still better than nothing when faced with bad randomness.

Giving Less Cushion: Sometimes there are very dire situations where it is necessary to forego giving firefoxes the normal amount of cushion (distance between them and Jumpman). Usually you want to give enough room so that you can always react if they suddenly turn around and charge you, but when you absolutely must clear a rivet or grab a hammer (due to time trouble) then one can essentially make a run for it. Many times this is most applicable for getting either the top hammer or the top right rivet. This principle applies not just to when Jumpman is on a girder, but when he is on a ladder as well. One thing you can do is perch Jumpman up near the top of a ladder, risking that a firefox going across the top might come down, in order to be much closer to the objective. In this situation, the code dictates that any firefox crossing over the end of a ladder from left to right has a 25% chance to descend -so it's not all that ridiculous to take the risk if you'll die otherwise.

Skipping hammers: Sometimes it is also necessary to give up using a particular hammer or hammers. If time is short, grabbing a hammer might make completing the rest of the level infeasible due to being too short on time. Essentially, when one skips a hammer, they are going into a sort of 'freestyle' mode -where they will have to rely on skills of avoiding and getting around firefoxes rather than removing them. Even if a player is good at freestyling, it is no replacement for a well-wielded hammer. This sort of situation can happen on both the Star and Weave patterns when too much time has been wasted by firefoxes blocking the hammers. However, it is technically true that there are situations where skipping hammers can be safer. If going to get a hammer that is blocked by a firefox is unnecessary because a route to finishing the level is already clear, then don't go out of your way to get it.

Jumping Firefoxes: New players might be tempted to jump firefoxes

at first. However, it won't take long for them to realize that firefoxes can often double back on Jumpman while he is in the air, causing him to land on them and die. This is why firefox jumping is not a normative Rivet Stage strategy. Nevertheless, there are times when the only hope is to risk it all on a firefox jump. If the only way to the last rivet while there is 000 on the timer is over a firefox, then you need to go for it. However, if the situation isn't as extreme, but a firefox jump is still needed, there is a method that can give a bit more of an advantage when jumping them. Due to how they are programmed, it is slightly more effective to jump firefoxes immediately as they turn around (especially on the lower levels of the game). There is a 25% chance that they will turn around at what are known as 'decision points' -which are points every so often along their path, however, if one can jump them immediately after they turn around, you may catch them before they even have the opportunity to decide to turn around. As firefoxes become faster and faster (as the levels increase), it will become less and less possible to utilize this facet of their coding, and you'll just have to simply risk it. Regardless, if executed properly, one ought to survive at least 75% of the time.

Wall-jumping/Edge Jumping: One thing to realize about situations where you become trapped by firefoxes is that you can minimize your risk by minimizing the directions from which you can be killed. Scooting over an edge can make it so that you can only be killed from one direction. Additionally, being near the edge maximizes the distance between you and any firefox that might come your way, as well as allows them more opportunity to wander away from you. However, if a firefox does continue towards where you are standing, performing either a standing jump (in this case it is known as an 'edge jump' because you are standing on the edge) or a wall-jump will effectively increase the amount of time you are giving yourself to live. This, again, gives the firefox additional time with which it might wander further away from Jumpman on its own. Lastly, this strategy prevents firefoxes from actually continuing in the same direction under you. It essentially makes the possible hitbox of Jumpman that the fireballs can reach smaller. This strategy is actually one of the better ones that can be used in a dire situation -though it is still quite risky.

Removing Rivets Without Crossing Over Them: A little known

trick within Donkey Kong (and which is hard to discover for beginners) is the fact that Jumpman can technically remove rivets without crossing over them. The advantage to this is the fact that the player need not be trapped with a hammer on the opposite side of a rivet they just unplugged. This little trick can come most in handy when one has a hammer that is about to run out, but if getting trapped on the other side of a rivet might put them in a difficult position where they will need to react quickly. Additionally, this trick can be used when the timer is low, and when crossing over a rivet and having to either jump back across or use a ladder further away might require too much extra time to allow them to still clear the board. Lastly, this trick can be utilized while wielding a hammer for ensuring that both the rivet gets unplugged as well as firefoxes that would normally be out of reach if Jumpman fully crossed over the rivet are still able to then be smashed. Obviously, this trick takes nearly pixel perfect precision, so it is not advised that one use this technique if the situation does not require it. If you mess up this trick at all, you will either miss the rivet or fall through the rivet hole to your death. A key point to remember is that if you start to cross a rivet and it disappears then you must continue right or you will fall. The only time you can go left after moving over the top of a rivet going right is if the rivet is still there.

Stage Patterns: There are two main patterns employed for consistently passing the Rivet Stage. Both patterns primarily rely on the fact that the firefoxes always spawn on the opposite side of the screen than Jumpman, and that Jumpman always starts in the bottom left corner. Additionally, these strategies make use of the idea of ultimately cutting off the firefoxes from Jumpman by first clearing rivets on the left side for initial protection, and then hammering firefoxes while on the right half of the screen and sending them to the left-most side where they will be trapped. Although the 'Star Pattern' method is most recommended for beginners and is probably safest once it is learned (due to the fact that it is more adaptable), the 'Weave Pattern' is much simpler and easier to learn, and often comes in handy when the stage goes awry from the get-go. Therefore, both will be explained here, as survivability will be greatly increased when both patterns are used to compliment each other, depending on the given situation that arises due to firefox randomness.

The "Star" Pattern: This

pattern is the most popular pattern used by Donkey Kong players today. Though it is not the easiest pattern to use, it is considered to likely be the safest of the two main patterns. The reason for this lies mainly in the fact that it is so adaptable -where the Weave Pattern (more on this pattern below) often 'puts all the eggs in one basket', so to speak. Unlike the Weave Pattern, the Star Pattern seeks to utilize *both* hammers to the player's advantage on the rivet board.

Bottom left Rivet: The first step in the Star Pattern is to get the bottom-left-most rivet. This is done by using the ladder to the *left* of Jumpman at the beginning of the screen. If the bottom middle ladder is used, there is a good chance that a firefox will spawn on the right side of the 2nd platform and drift far enough left to block the player's progress, thereby wasting precious time. Once the left ladder is climbed, head right and try to get the rivet. If the rivet is blocked by a firefox, it is worth waiting for a bit to see if an opportunity will open up to get it. If an opportunity presents itself, run across the rivet and then immediately jump back across to the left side. However, if one is unable to unplug this rivet, it is ok. This rivet is not the most critical rivet and can be removed at a later time. It is not worth waiting too long trying to get this rivet, as the rivets up top can be much more bothersome to remove, so you'll need to still hurry up and move on in order to get to them before any of the firefoxes get in your way. Then continue on up the left side ladder to continue the pattern.

Top left Rivets: The next step in the Star Pattern is to try to remove both of the top left rivets. However, many times firefoxes that have wandered all the way over to the left side of the 3rd platform can block your path to the top. If this is the case, you will need to either wait for an opening or improvise by going around them. If you are still on the 2nd platform when this happens, one can jump back to the middle and climb up through the middle and around the firefox. This is especially applicable if the blocking firefox on the 3rd girder decides to come down. It is much better to go to the middle, if it is clear, than to retreat all the way to the bottom platform. However, in the worst situations, even this is not always possible. If one is blocked by a firefox that is on the 4th platform, in order to keep with the star pattern, you will *not* want to cross over the rivet on the left side of the 3rd platform to the middle. Doing this would cause the stage to become significantly

more difficult -effectively forcing you to freestyle much of the screen, since converting it to the Weave pattern would be very unlikely. In this case, simply wait for an opening. If the firefox descends to the 3rd girder, retreat to the second girder and then play the situation from there (as described above). Every now and then you will get significantly stalled at the beginning of this pattern in this way, but on the vast majority of Rivet Screens the path to the top will be relatively clear.

Once you have cleared the top two left-side rivets, it is possible that a firefox might climb up the left side from the 3rd girder. If this is the case, one will have to weigh the risks and see which is the better option: Waiting for the firefox to climb out of the way or grabbing the top hammer.

Waiting if Blocked From the Bottom Hammer: If one elects to wait for the firefox on the left to move out far enough to the right (which gives the player enough time to jump back across to the left and descend to the bottom hammer -thereby preserving the Star Pattern), then one must make sure that any firefoxes on the right side of the 4th girder aren't becoming significant risks. One can climb up on the top left inside ladder to avoid firefoxes on the middle section, but this is still quite a risky maneuver, since any firefoxes below might decide to climb up. Any continuation after this point will likely include some sort of risky firefox jumping, and is not preferable. If you find it is taking up too much time trying to get back down to the bottom hammer, you may simply have to skip it.

The Staal Pattern: However, if one decides to instead grab the top hammer at this point, they will have diverted from the Star Pattern to what has become known as the 'Staal' Pattern (it is based off of the last name of the player who popularized it). Having to use the Staal

Pattern is not the most ideal situation to be in, but it allows the player to retain some amount of hope for surviving the stage. The most crucial part of the Staal Pattern is going to be making sure that one can get back down after using the top hammer. Because of this, it is important to wait to grab the hammer in order to get good smashes and be able to clear the top right rivets. If the the top right rivets are cleared, and if some of the smashed firefoxes respawn so that they are trapped on the top left side, then there is much more of a chance that Jumpman can make his way back down safely to the 3rd girder. Inevitably, it is usually the case that, as a result of Jumpman climbing back down to the 3rd girder, the firefoxes that were once trapped in the top left corner are freed. These firefoxes tend to congest up the area around the rivet nearest the bottom hammer, so this rivet is often the hardest and last rivet to be removed. But if it is at all possible, and safe to do so, clearing this left rivet will definitely trap the firefoxes on the left for the remainder of the level, so it can be helpful to get it as soon as possible. Other times, when it is the final rivet remaining, players will press points by jumping next to Kong so as to allow those firefoxes that are partially trapped on the left time to climb to the very top. Once all of them are at the top, one may quickly climb down and beat them to this last, left rivet.

Bottom hammer: If the player is able to make their way back to the bottom hammer safely after having removed the two top-left rivets, then they will have essentially achieved the Star Pattern. Being able to wield the bottom hammer while sealing off the left side (to be used to trap smashed firefoxes) is the distinguishing feature of the Star Pattern.

Grabbing the Hammer: Just like in other parts of the pattern, actually being able to grab the bottom hammer can be difficult or easy depending upon how much pressure there is from firefoxes that are on the 3rd girder. If the way is clear, one can simply grab the hammer by performing a wall-jump against the invisible wall just to the left of the hammer. This is safe and

prevents you from getting too near to the far left edge where you might fall. However, if there isn't much room to grab the hammer, it is possible to stand on the far left side of the platform and perform a standing jump to grab the hammer. This allows for Jumpman to land on the ground much more sooner and thereby grab the hammer when there is not enough distance between himself and the nearest firefox to be able to wait for the slower wall-jump (which requires being in the air for a longer period of time). The standing jump also keeps Jumpman from bouncing back even further to the right -and therefore closer to any threatening, 3rd girder firefoxes.

Possible Hammer Bypass: There will be times that as you wait for an opportune time to grab the bottome hammer, such as waiting for at least one or two firefoxes to reach your platform, that the firefoxes will be congregating in the top right corner of the screen and showing no interest in coming down to you. If this takes too long, and waiting will not give you enough time to clear the board, then you could simply clear the final left rivet and convert to the Weave pattern and attempt to reach the top hammer from the left side as opposed to climbing the middle ladder. However, you will need to assess the situation and determine if too much time is spent waiting under the hammer on the left. Most of the time you will be successful in smashing at least two firefoxes, so you may rarely, if ever, feel compelled to attempt this sort of transition.

Getting Maximum Smashes: Once you have the bottom hammer, it becomes very important to try to smash as many firefoxes as one can in order to trap them on the left side of the screen. To do this, it has to be remembered that Jumpman needs to be on the right half of the screen when any smashed firefoxes respawn. If a firefox is smashed on the left side, you'll need to hurry as fast as possible back to the right half of the screen so that this happens. Additionally, it is helpful to delay crossing over the right-side rivet for as long as possible, since

firefoxes in the middle might delay in climbing up/down, and you'll want to try to snag them at the last second. Sometimes firefoxes will stay to the right, just out of reach, and you'll have to cross over the rivet to get them before the hammer runs out. Even if you cross over the rivet, know that it is still possible to smash firefoxes coming up from the 2nd platform using the right-inside ladder. Just scoot close to the rivet hole and reach across to barely hit them. Lastly, if any firefoxes are threatening to descend down the right side from above while the hammer is about to expire, you can either:

1) Scoot as far away from the ladder to the left as possible, hoping to jump back across to the middle before you are caught,

2) Stand to the left of the ladder with Jumpman's nose on the left side of the ladder, hoping to hit the firefox before the hammer runs out (remember that standing directly under the ladder is not 100% safe, and firefoxes may sneak past the hammer while it is in the down position), or

3) Stand to the right of the ladder, holding the down direction, hoping to either smash the firefox as he descends, or else immediately climb out of the way down to the second platform.

Of these three options, most try number 2, since it is a sort of middle of the road option. However, if one gets good at judging when the hammer will end, one can start to know which of the options will actually be best in a given situation. For example, if there is a firefox still in the middle section of the 3rd girder for some reason, option 1 is pretty much not usable. Or, if a firefoxes is still below you, option 3 must, likewise, be excluded as unfeasible.

Avoiding the Four Firefox Scenario: If the hammer ends and you were not successful in getting any of the firefoxes to spawn on the left then you simply just climb up the left side and you have converted the situation into the Weave pattern. On the other hand, one of the most difficult ending scenarios that one will encounter after using to bottom hammer is being stuck with four firefoxes on the right, and one trapped on the left. With the one fireball on left one can not safely wait on the left side in order to reach the top hammer as in the Weave. This leaves you with the maximum number of firefoxes on the right to have to deal with without the Weave Pattern as a good fall-back plan. One way to avoid this scenario is to evaluate your hammer smashes. If the hammer is near the end of its cycle and have only smashed one firefox that is still yet to respawn, quickly move back to the left side of the screen and force the firefox to respawn on the right -thereby avoiding the most difficult Star Pattern scenario and converting it to a relatively less challenging Weave situation.

Up or Down?: Once the bottom hammer expires, the player must make a crucial decision: Is it better to first go for the bottom right rivet, or is it better to go for the top hammer? Much of the decision lies in where, and how many, firefoxes are guarding each of the two options. In general, one will want to go for whatever area has the least number of firefoxes. However, if they are equal, then it will depend more upon the location of the firefoxes. If the firefoxes above are all the way at the top, then go fast to grab the hammer. If the fireballs below are hanging out to the right, then it might be best to try to snag the bottom right rivet from the left (the middle platform). It's a helpful fact of the game that if you only have to deal with one firefox, things are exponentially easier, since you can always do some dancing around the firefox until it allows you an opening to grab the rivet/hammer.

Bottom-Right Rivet Strategies: In most cases, you'll have less firefoxes on the bottom of the screen to deal with than up by the hammer. This is because there has already been a lot of time during the beginning portion of the Star Pattern for firefoxes to climb, but almost no opportunities for them to descend (since Jumpman spends most of the time during the first half of the stage higher up on the screen). Also, there are

more ladders going up from the second platform than there are coming down from the 4th. This allows more opportunities for firefoxes to climb up when you have the hammer to smash them. Regardless, if there are no firefoxes below, simply get the rivet and head back up to the section of the 3rd girder connected to the ladder just below the top hammer. If there are firefoxes to deal with, however, it is usually easiest to try to snag the rivet from the left, since the firefoxes will tend to the right. Just waiting for an opening on the right side of the middle platform of the 3rd girder usually does the trick, but the time you'll need to wait can be quite variable. Just be patient and persistent.

Top hammer Strategy: If one decides to go for the top hammer before the bottom rivet, it is important to know that while one is waiting on the ladder below the top hammer there will be potential threats from firefoxes below that wouldn't be there if the bottom right rivet were already removed from the left (meaning any lower-down firefoxes would be trapped on the right). This is why most people tend to try for the rivet first (if they can help it), since waiting to get to the top hammer during the Star Pattern can sometimes take a while. Having extra threats doesn't help one bit.

Climbing the Ladder: When waiting to climb up to the top hammer, it is generally best to wait and retreat to the bottom right side of the ladder. This is because firefoxes always move to the *left* when they get off ladders. So, if a firefox does climb down the middle ladder, it will give Jumpman a little more time to retreat further. However, if un-trapped firefoxes remain below Jumpman, it may be a special case where the left side of the ladder is safer, because if one needs to retreat all the way to the 2nd girder, it would be in a safer position in respect to those other firefoxes on the 2nd girder. Regardless of which side of the ladder is needed for the retreat point, you will want to only try to climb the ladder towards the hammer when the firefoxes above are to

the *right* of the ladder. This is because, similar to how firefoxes always first exit ladders to the left, firefoxes also only start climbing ladders when they are coming from the left. If a firefox crosses over to the left side of the top of the ladder, that is a cue to retreat. When they move back to the right side, climb back up. You may need to do this several times before the firefox finally lets you up. However, if a firefox descends, you will have to do your best to work around it and get back to climbing the ladder. One can use the typical tricks of getting just below the firefox to draw it down, or else one might have to give up a little protective distance between the firefox and Jumpman and instead make a run for the ladder. Often times how low the timer is will dictate how risky one needs to play the situation.

Grabbing/Using the Hammer: Once under the top hammer, you'll need to wait to grab the hammer at an opportune moment when the most potential smashes presents itself. However, if you are low on time, then you'll need to grab it right away. If you are being pressured by a firefox as you make your way to below the hammer such that you barely have time to get the hammer, it would be a good idea to grab the hammer while backjumping away from any potential firefox threats. This way you can guarantee both your own safety as well as that you can still have the hammer in your possession to use afterwards.

Once safely with the hammer, smash as many firefoxes as possible and cause them to spawn on the left side of the screen. Don't be tempted to smash any of the firefoxes that are trapped on the far left, as they can then respawn quickly on the right and cause you potential harm if your hammer runs out. Remember, it's not about points; it's about safety. Just like with the bottom hammer, you'll want to delay crossing over the right-most rivet for as long as possible. Go right up to

the rivet and reach over it if firefoxes are over there, and they may eventually come to you instead. However, if a firefox starts to ascend the top right ladder, make a dash for him if your hammer is going to run out. If you've done well, then you'll hopefully not have any firefoxes up top to deal with. However, if firefoxes do remain, you'll need to use your various freestyling tactics to get to the top right rivet. If you still haven't gotten the bottom right rivet, it may actually be better to climb down and get that rivet first before getting the top right rivet, as then you'll merely need to jump over the rivet to finish the screen. This allows you to jump over a firefox simultaneously with finishing the stage if needed.

Foregoing the Top Hammer: In vary rare cases, if the timer is too low, one may need to abandon getting the top hammer altogether. Grabbing the hammer might deal with the firefoxes, but it would leave you with not enough time to clear the rivets. Below is a basic estimation of how many Bonus Timer ticks a hammer will last on each given level (starting from the jump input):

Level 1= ~4.5 timer clicks (~500 bonus)

Level 2= ~5.5 timer clicks (~600 bonus)

Level 3= ~7.0 timer clicks (~700 bonus)

Level 4= ~9.5 timer clicks (~1000 bonus) (make into graphic)

If it is still needed to grab the bottom right rivet, realize that a few more timer clicks, minimum, will be needed to traverse back down from the top right rivet.

In the case that time is extremely low, you may need to jump over firefoxes. If anything, your best bet is to jump them just as they turn around to come at you.

Clearing the Last Rivet: For the last rivet, it is important to understand that the game removes it while Jumpman is at the apex of his jump. Because of this, it is a quite helpful (and often employed) strategy to be more aggressive in order to clear the last rivet. Many times, players will essentially jump a firefox and remove the last rivet at the same time when completing the stage. If this is timed correctly, Jumpman will not land on the firefox, but rather, the stage will end as soon as the last rivet is removed, while Jumpman is still safely in the air.

When to abandon the pattern: If one is ever forced to have to divert from the Star Pattern, it will be to one's best advantage to try to convert into either the Staal or Weave Pattern -since these give the best odds of survival over just trying to fully freestyle the board. The place to convert to the Weave will most likely be early on during the screen. If many of the firefoxes spawn below and seem like they may prevent Jumpman from getting back down to the bottom hammer. The Staal Pattern will most likely be utilized later on in the Star Pattern, if, after clearing the top left two rivets, it seems that making one's way back to the bottom hammer will be too risky or impossible.

The "Weave Pattern": The Weave Pattern is one of the two main Rivet patterns that Donkey Kong players typically use. This pattern needs to be learned if one wants to get a Killscreen, as it will often have to be utilized when the Star Pattern breaks down. One of the advantages to learning the Weave is that it is a much safer pattern during the initial part of the Rivet Screen. Since it clears the entire left side of the screen so efficiently and creates a safe spot for the player hang out in as they wait for an opening, this Pattern requires much less thinking on the fly and is essentially a much simpler pattern overall. Much of the dangers of the initial portion of the screen are removed and traded for the later difficulty of getting, using, and retreating down from the top hammer area. Where the Star Pattern tries to create safety by incorporating both hammers into its strategy, the Weave Pattern tries to create safety by quickly creating a safe zone on the left. (jeremy, can you put in the weave pattern pic again, for some reason google docs was giving me an error when i tried to move it... I had to refresh and then it was gone. don't feel like going into the archived docs for it on my slow comp. thanks)

Clearing the left rivets: The first priority of the Weave Pattern is to clear all of the rivets on the left side of the screen. In general, there are two ways to do this 1) Weaving (from where the pattern gets its name), 2) a mix of weaving and grabbing from the left side. Normally, one is simply able to run in a continuous motion, Weaving first from left to right, then from right to left, etc, until all the rivets along the left side are gone. This is the fastest way to remove the rivets, and is only possible if there are no firefoxes blocking or threatening to block the way. However, if there are firefoxes near the left-side rivets, one will most likely have to stay along the left side of the screen as you climb to each higher level and snag the rivets when firefoxes wander away and give you an opening to unplug them. It is safest to do this method from the left side, since firefoxes tend to the right side of the screen, as well as you wouldn't want to get caught in the middle section of the screen with firefoxes on both sides of you. Often times, if you are held up by a firefox, it will only be with one of the rivets, and you'll still be able to continue doing a sort of weaving pattern for some/all of the remaining rivets after it. However, the earlier you get hung up by a firefox on the weave pattern, the more likely you will be blocked by firefoxes on some of the remaining rivets. Because of this, if a player is being slowed by a firefox blocking either the lowest or second lowest rivet on the left side, one may always proceed to the higher rivets in hopes that they can remove those before any firefoxes impede their way on those more difficult rivets. Then, on their way back down, the player will still have the option to either grab the lower hammer and convert to the Star Pattern, or simply use the hammer to remove rivets on the left side as well as smash firefoxes to make it safe. This same sort of strategy of using the bottom hammer to make the left side safe can even be used once all the rivets along the left side are cleared. Every now and then a bottom spawning firefox will start to make its way up the left side long after the left side has been cleared, and the player can always wait on the 3rd girder near the bottom hammer to smash it once it comes all the way up to that 3rd level -effectively making the left side of the screen safe again.

Up or Down?: Once the left side is cleared and made safe, the player will want to position Jumpman on the 4th girder, just left of the rivet hole to the left of the top hammer. This is the typical position from

which the player will wait to see how to proceed. However, if the way is clear, one may skip positioning Jumpman here and immediately execute the next step in the plan. After Jumpman has taken this spot up near the top hammer, the player has two main routes from which they can choose how to play the rest of the screen: 1) They can either go down and first clear the bottom right two rivets, or 2) they can wait for an opening to grab the top hammer. Usually, either of these options are possible (since many times the firefoxes on the right side are both high and low on the screen), but whether or not the firefoxes have congregated in a general area -either high or low- will determine how to proceed.

Bottom Right Rivets First: If the firefoxes are clearly congregating towards the top of the screen, making getting to the top hammer difficult as well as wasting too much time, then it might be time to instead go for the bottom right rivets. Climbing down below the 4th girder will coincidentally cause the firefoxes to be able to climb down, so if you see that this happens then make an opening for the top hammer, you can always climb back up (either by way of the middle ladder, or using the left-side ladder you just descended) and get the hammer through these means. However, if an opening does not present itself, continue on to get the bottom rivets. Typically, these rivets will be much easier to get by approaching both from the left, and by getting the rivet on the right of the 3rd platform first. This is because any firefoxes above you will tend to travel to the right and will likely climb down the far right ladder connected to the 3rd platform. If they do this, you'll want to essentially seal them over there immediately to temporarily prevent them from hindering you further (they may still decide to descend yet another level if you go below them). However, a firefox may descend the middle ladder, making jumping back across a rivet hole to the middle section dangerous. In this case, you'll have to quickly hurry down the ladder on the right side of the 3rd platform and then be cautious while getting the bottom right rivet.

All of this process becomes a bit more of an exercise in freestyling when there is a firefox still below the 4th girder when

you initially decide to go for the bottom rivets. One will have to rely on general rivet-removing tactics and other methods of trying to bypass firefoxes to achieve this goal. If all else fails, one can always retreat back to the far left side for safety in order to wait for a better opportunity. Whatever one decides, you'll most want to prevent any situation where Jumpman gets trapped between 2 or more firefoxes -especially while on the right side of the screen.

Once the bottom rivets are removed, it may be the case that many of the fireballs are now lower down on the screen than the 4th girder. If so, check to see if the top hammer may be approached from the middle ladder (like in the Star Pattern) before you make your way back to the 'waiting spot' on the left side of the 4th girder. Sometimes, if there are just too many fireballs congesting the bottom right and middle portions of the screen, the best way for getting to the top hammer may actually require descending all the way back down to the bottom girder before then taking the long way around back up the entire left side.

Top Hammer First: If the opportunity presents itself, one may also go for the top hammer first instead. This will usually be possible if more of the firefoxes are still below the 4th girder. However, it must be cautioned that getting the top hammer first poses significant dangers if one does not get enough smashes with the top hammer. This is because, after the hammer expires and the top right rivets are unplugged, the player will inevitably have to descend back down to get the final rivets in the bottom right corner. If any firefoxes remain below -especially if there are multiple firefoxes- doing so may be very difficult. Firefoxes that remain below the 4th girder after the hammer runs out may climb up and trap Jumpman, so one will need to be very good at getting a significant number of smashes with the top hammer (i.e. at least all but one on the right side of the stage). This will potentially be even more difficult to do than in the Star Pattern, since there will almost always be more firefoxes still on the right side of the screen when using the Weave than when using the Star Pattern. This

is, essentially, the greatest weakness with the Weave Pattern: Simplicity of execution and immediate initial safety is traded for having to be better at grabbing and using the top hammer.

While waiting to get the top hammer, there are a few tactics one may use to increase their odds of getting the hammer. If the firefoxes happen to be blocking your path to the hammer, one may tuck a toe down the ladder to the left connecting the 3rd and 4th girders. Doing this allows the firefoxes to climb down and potentially free up enough room for you to get to the hammer. Another tactic that may be used is getting a head start towards the hammer. If the firefoxes are not all the way to the left side of the middle section of the 4th level, and if there are no firefoxes threatening coming down the ladder from above, one may jump across the rivet hole and wait for an opening from the location on the right side of the hole. If there is pressure from either the right or from above, one will need to then retreat back to the left side of the rivet hole. Using this tactic essentially keeps a minimal distance of cushion between Jumpman and the firefoxes as possible. That way you'll have a better chance to quickly get the hammer when the opportunity presents itself.

If one is lucky, you actually might be able to wait under the hammer for a while before having to grab the hammer. When this happens, it is very important to wait for firefoxes above to descend and/or firefoxes below to ascend so that you can get as many potential smashes as possible. Often times, performing a jump towards any firefoxes that are yet a safe distance away, while at the same time grabbing the hammer, may gain just enough extra distance to be able to reach them with the hammer than you would have had otherwise. As stated before, you want to at least get all but one of the firefoxes -that way there is no chance that you can get trapped by multiple firefoxes after the hammer expires.

However, most of the time when grabbing the hammer, one will have no choice but to jump for it immediately. If it is possible, using a standing jump may be more preferable than using a

front jump, since a front jump (a jump leaping to the right, in this case, towards firefoxes) may take you too dangerously close to the firefoxes. In some case, a standing jump may actually even be the only option (for example, if a firefox descends the ladder to the left and traps you in on both sides). Similarly, a back jump (leaping to the left, in this case, away from the firefoxes) can be more preferable than a standing jump. If a firefox turns around at the last second and looks like it will be under you by the time you would land a standing jump, performing a backjump will cause you to jump away from the firefox as it rushes towards you and give you more time to quickly turn around to smash it. In some cases, if you do the backjump away from a firefox coming for you, and you grab the hammer, then you are already facing the firefox, eliminating the extra frame or so normally needed to turn around in order to smash the firefox. If the jump and left input are done at the same time when facing right, then you will backjump and remain facing the firefox.

While smashing firefoxes, it is important to delay crossing over the right for rivet as long as possible when there are still firefoxes above and/or below you. You wouldn't want to trap yourself on the right section of the level and be unable to cross back over to smash a firefox that just ascended/descended to the middle platform. However, if a firefox that is out of reach on the right is threatening to escape by climbing up (remember, they can't go down unless you are below them), you'll need to cross over to get him. This way, at the very least, you'll be able get the fireball that luck has securely given you.

The Final Rivets: Depending upon whether one gets the top hammer or the bottom rivets first there will be different final rivets that one will need to unplug to finish the screen.

If one first got the bottom right rivets and *then* the top hammer, all that should remain is the very top right rivet. Depending upon how many firefoxes remain on the 5th platform, getting this last rivet could be easy or difficult. One will likely need to approach it from the right side if there is more than just a single

firefox guarding it. Remember, since it is the final rivet, all you'll need to do is remove it, so jumping over a firefox and clearing it while in the air is an option (and is often necessary). If just one firefox guards the top, then, so long as you are not on a time crunch, getting it should be fairly straightforward.

However, if one has yet to remove the bottom rivets (meaning you opted to get the top hammer first) then you'll probably be in a more difficult situation. Again, depending upon how many firefoxes are blocking your way to remove the top right rivet, you're going to have a harder or easier time. However, in this situation, if getting the top rivet seems to perilous (usually because there is more than one firefoxes guarding it), then one may hold off on going for it until after getting the bottom right rivets. Getting the bottom rivets first will allow more time for the firefoxes to remove themselves from guarding the rivet as well as allow you to simply jump over this difficult rivet to finish the screen (easier than getting it *and* having to safely retreat). Additionally, if more than one firefox is blocking the top rivet, then it is quite likely that the bottom right rivets are completely open to unplug (assuming you didn't just have a terrible, 1-2 smash top hammer).

If getting the top right rivet is simple but there happens to still be multiple fireballs below you, then it may be the case that using the middle ladder will be best to use when descending to the 3rd platform -since firefoxes tend to the right. Using the ladders on the right side presents more of a potential of either being trapped or having to waste time retreating over and over again. Ultimately one will have to use their basic rivet tactics/skills to assess the situation and work around the firefoxes that are there.

When to abandon the pattern: Because the Weave Pattern diverges from the Star Pattern so early on, if there is ever trouble with firefoxes blocking the higher rivets on the left side, any sort of freestyling might convert the pattern into something completely different than the Star Pattern altogether. The only real time that the

player can revert back to the Star Pattern is if there is trouble before unplugging the left-side rivet on the 3rd level. If this happens, depending upon what side of the rivet you are on, one can either climb up the left or middle ladder to get to the next rivet. After this, just play the screen as though you are using the Star Pattern. However, if one has already removed the 3rd level rivet and is being delayed, you can always grab the bottom hammer in hopes that one or more of the fireballs might descend and be smashed (since you won't be using the bottom hammer as part of the main strategy anyway). Generally speaking, abandoning the pattern will only happen while trying to clear the left side rivets (i.e. during the beginning half of the screen).

However, there is one way in which one might still revert back to the Star Pattern during the later half of the pattern: If any firefoxes climb up the left side from the very bottom level (which is rare) and can't be removed from the safe zone that you have created (by using the bottom hammer to smash them), then the player will need to make their way towards somewhere on the right side of the screen (most likely below the top hammer). In effect, this puts you in a position quite similar to just after the bottom hammer runs out during the Star Pattern.

Final General Reminders

Practice/Time: Remember that getting good at Donkey Kong will take lots of time. Most

people put in several hundred (and sometimes over several thousand) attempts before ever reaching the Donkey Kong Killscreen. Almost no one is able to Killscreen this game without at least a few months of serious effort. Keep focused and intentional about getting better in some way each and every time you practice and you will eventually reach your goal.

Simple to Complex/General to Specific: When learning Donkey Kong, it is important to remember to work from the more general strategies to the more specific. Learn techniques and methods that you will utilize over and over again, in many different places. Don't get bogged down at first in avoiding very rare situations or errors. Once the more common things become second nature, then it will be time to start touching up the finer details. Similarly, don't make things so complex if they don't have to be. Be patient and don't run headlong into something that will cause you to be out of your league. In time, you will slowly build up your skills such that what once was tough to coordinate or plan out will become quite easy.

Minimize/Analyze Deaths: Lastly, always be your harshest critic. Call yourself to high standards. Most significantly, this means always taking note of how you die. Be sure to think through after each game and recall what, in particular, caused your death. Maybe it was a bad choice made simultaneous with or just before your deaths. Maybe it was actually a bad decision made quite a while before your death that put you in a worse situation. Be honest with yourself, and don't blame every death simply on the game. Realize what deaths you can control and try to fix them. The more you 'plug the leaks' in this way, the longer each Jumpman will last, and the closer you will get to your goal.

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