LONG JUMPING ON VNL (3 Jan 2022)

If you are a completely beginner - https://youtu.be/5WQIRvwtNaU (Banana gaming basics of LJ VNL)

FAQs:

Q1. Which is better? Dead or normal strafes?

According to the community, many people seem to agree that dead strafing is better. The reason is because it is supposedly more consistent than normal strafes and is easier to sync strafes compared to normal strafes. However, I've heard that normal strafes are better to go very high distances (253+)

Q2. What is a tick? What is 128 tick/64 tick?

A. A tick is an update. The game updates itself 64 times per second on 64 tick and 128 times per second on 128 tick. This is similar to your computer refresh rate. This means that a tick in 128 = 1/128 seconds and a tick in 64 = 1/64 seconds

Q3. What is "max" in a jumpstat?

A. Max refers to the maximum velocity that you achieve at any point during your long jump (or stat).

Q4. How can I enable the thing that shows height and stuff in chat when I land a stat?

A. Type !options or !o in chat > jumpstats > find show advanced stats in chat

Q5. How can I use scrollwheel to bind?

A. You need to use your mouse driver or something else to change the actual function of your mouse wheel to something else

Q6. My 1st strafe has almost zero for everything. How can I fix it?

A. "Ghost" first strafe



ReDMooN jumped 247.1572 units with a Long Jump
VNL | 230 Block | 8.86 Edge | 7 Strafes | 84% Sync | 249.99 Pre | 312.17 Max | 1 W | 3 OL | 7 DA | 18.3 Deviation | 25.4° Width | 55.8 Height | 0.773 Airtime | 0.0 Offset | 7 Crouched

#.	Sync	Gain	Loss	Airtime	Width	OL	DA
1.	0%	0.00	0.00	1%	0.0°	0	0
2.	94%	14.37	1.05	17%	39.7°	0	0
3.	96%	13.73	0.00	30%	36.4°	1	0
4.	93%	16.17	0.00	16%	42.2°	2	0
5.	75%	10.58	0.00	16%	32.7°	0	2
6.	85%	8.37	0.00	14%	21.6°	0	0
7.	0%	0.00	0.00	5%	5.1°	0	5

Some people have it and this might be due to small mouse movements before and during the jump. A ghost strafe of 1 or 2 air time should not really be a problem but if you want to get rid of it, try to not move your mouse before your long jump.

Q7. Where can I find all the technical terms and their meaning?

A. https://bitbucket.org/kztimerglobalteam/gokz/wiki/Jumpstats

Q8. Is there a difference between 64 and 128 long jumps?

A. Yes! 64 tick makes it harder to get distance as there are less ticks per second to gain speed. People usually strafe narrower on 64. The jumpstats tiers are also different. Wrecker LJ on 64t is much lower (about 246 *i think)* and 250 on 128.

Q9. What does “strafe” mean in a jumpstat?

A. GOKZ counts a strafe as a mouse movement (either right or left) EVEN if you do not actually press your direction keys

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References:

https://bitbucket.org/kztimerglobalteam/gokz/wiki/Jumpstats - js terms explained
https://forum.gokz.org/d/88-vnl-discussion/2 - zerok explaining air accel
https://bitbucket.org/GameChaos/distbug/src/master/ - distbug

Script:

Inputs: dot, mysteriouspt, blacky, dyalite, maidrobx, zerok

Title: Long jumping on VNL

Opening of video: clearly state that the info is subjective, that the “how to LJ” is @ xx:xx in the video.

Intro:

This video will cover the basics of long jumping on 128 tick, the different strafing techniques, some technical terms and their meaning.

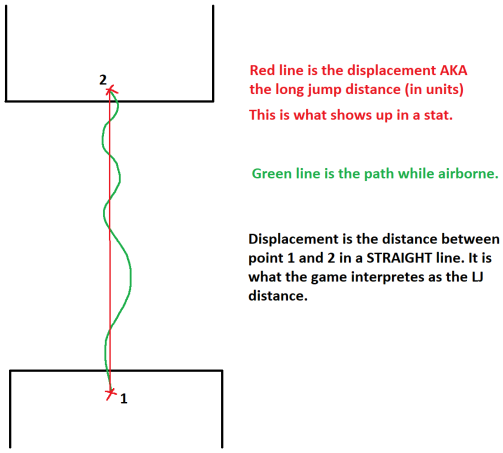
Alright, so, a long jump is when you run, jump and land. It is the most basic type of jump and is arguably the most important one.

To long jump, you firstly need to know how to air strafe. I’m assuming that you already know how to do this but just to be on the same page, pressing A/D and moving your mouse in their directions will make you gain speed. There are many videos on how to do this and this is not the point of this one.

Basic info:

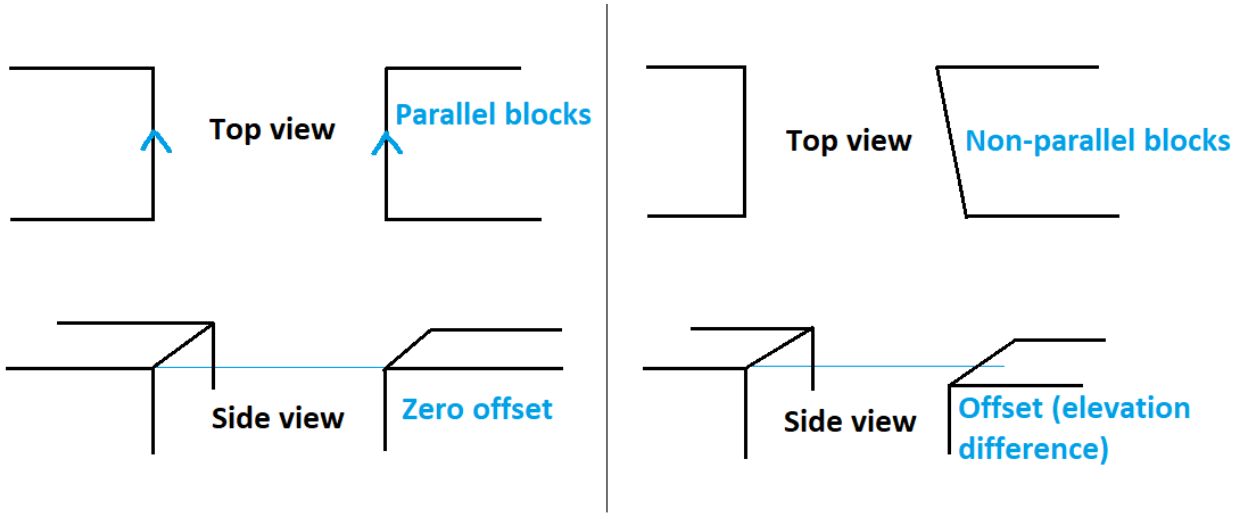
Distance

"Distance" in the game is the displacement between the point where you jump and land. This means that the path you take will heavily affect it.



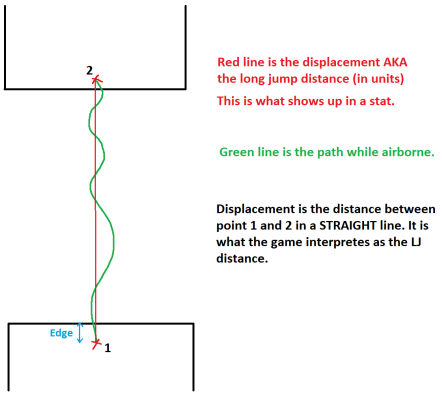
Block

Defined as the size of the gap you jump across. Blocks have flat faces which are parallel to each other and have no elevation difference between them.



Edge

Edge is the distance between the point where you jump and the edge of the block you're jumping from. The lower the better.



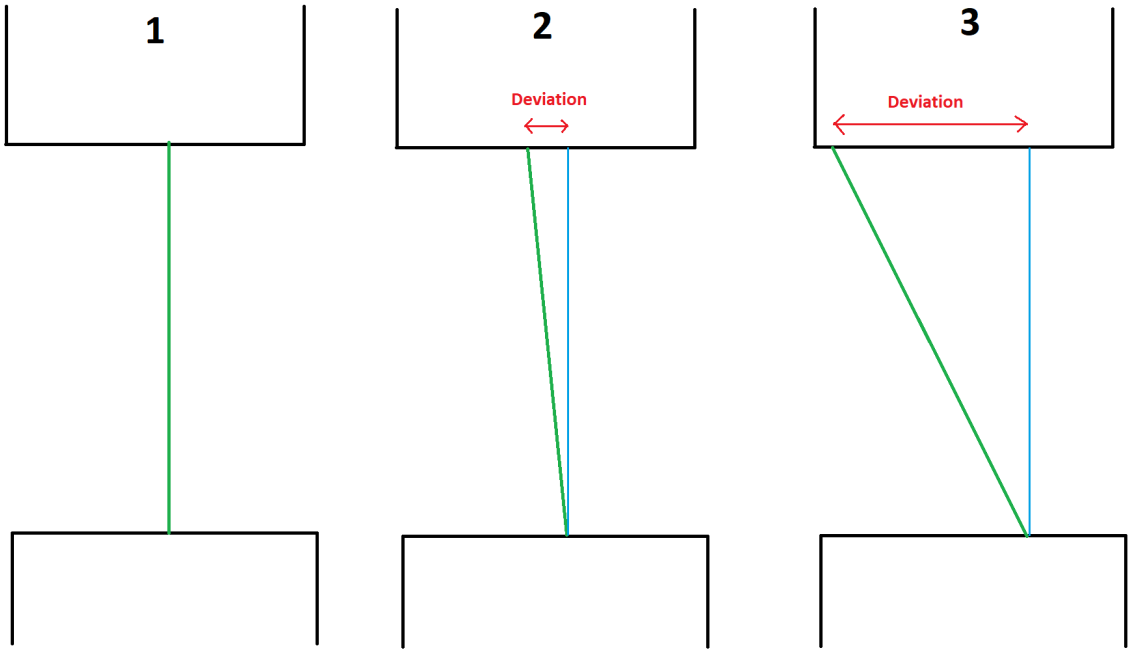
W (w release)

Refers to the tick you release your forward key relative to your jump key. It is positive if you release after jumping and negative if you release before.

W release is one of the most important things in a long jump and can completely mess your LJ up. Releasing late will mess with your first strafe and releasing early will fuck your pre.

Deviation

Deviation refers to how much you went diagonally relative to your starting point. Jumping in a straight line will get you ZERO deviation. Deviation slightly increases the distance you need to land blocks and you need to keep it to a minimum. 10 or below should be good enough.



Crouched
Is the amount of ticks you were crouched during your jump. You want to keep this as low as possible by crouching as late as possible when landing and by tapping bind as fast as possible if you're using it. A good crouched would be one below 10, with 1 being the lowest.

OL (OverLap)
Refers to the amount of ticks that you spend while pressing both direction keys simultaneously. You want to keep this as low as possible.

DA (DeadAir)
Dead air refers to the amount of ticks that you spent while not pressing A/D. You want to keep this as low as possible by starting to strafe right after you jump and by strafing continuously until the end.

Height
Refers to the maximum height that you reached during your long jump relative to the point where you jumped.

Airtime
This refers to the total amount of time in seconds that you were airborne.
Strafes have air times which refers to the percentage of your air time that went into each strafe. For a no bind long jump, 0.773 is the air time. For a no bind, no duck long jump, 0.750 is the air time.

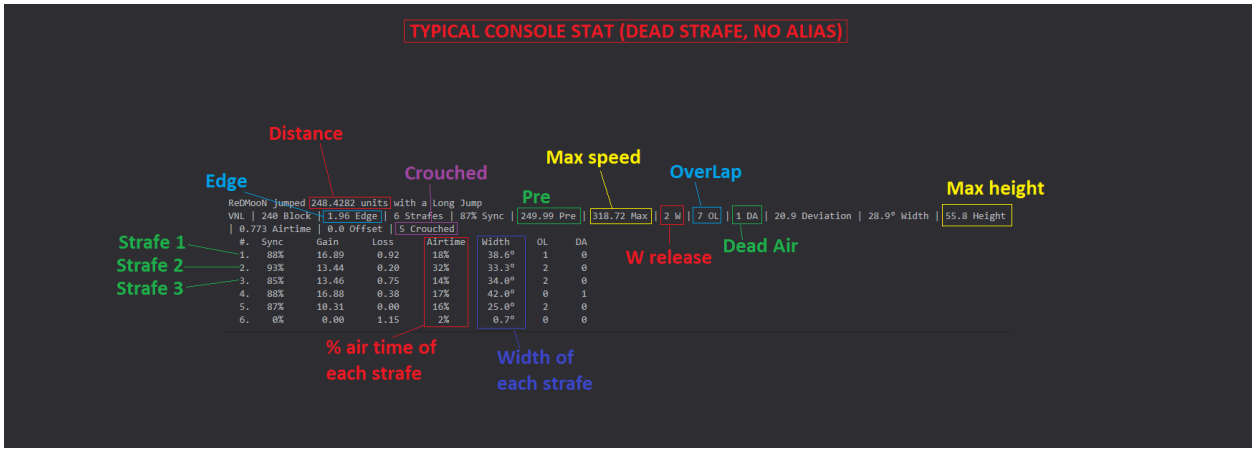
Sync
Refers to the percentage of ticks that you spent gaining speed or how good your mouse movements and key presses were in synchronization. The higher the better.

Pre
Your pre is the speed that you have when you jump. For a long jump, the max pre is 250. For any long jump, if you're going for distance, this needs to be 250 if possible.

Width
Refers to the angle in degrees from the centerline of a strafe. The wider you strafe, the greater this value will be.

Strafes
Refers to the number of strafes done during the long jump. Only mouse movements are counted as strafes.

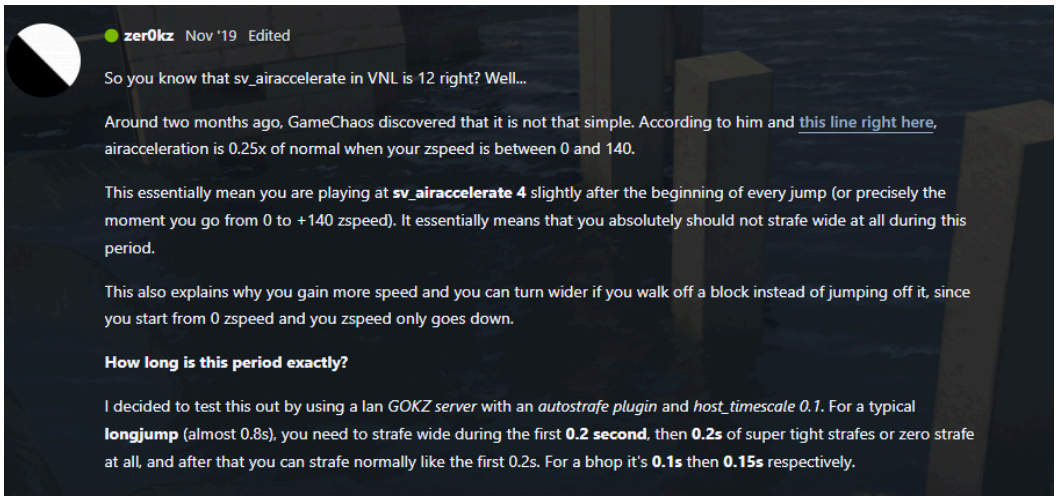
Max
Refers to the maximum velocity that you achieved during your jump.



Advanced info

Air acceleration

Strafing in VNL is harder due to a ‘dead period of time’ during any jump. Near the start of any jump, your air acceleration is much lower than during the rest of it. This makes gaining speed during this time very hard and requires you to adjust. This was put in place to prevent players from doing 360 peeks around corners. You can find the full explanation on this in the link in the description.

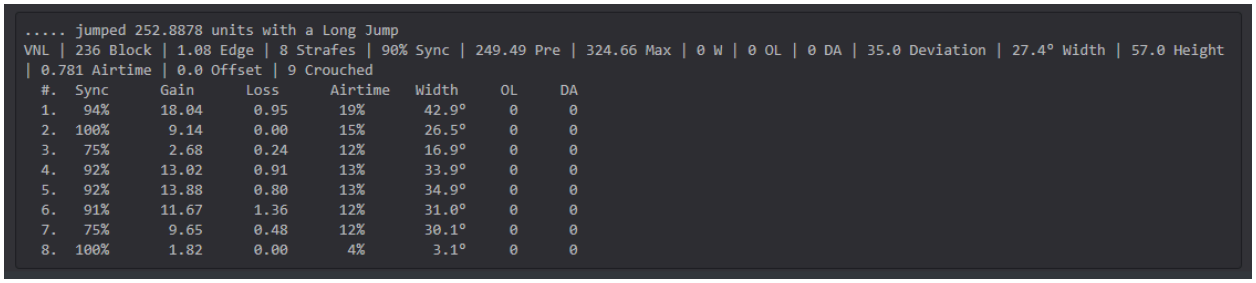


Strafing methods

Normal strafe (NS)
Normal strafing is similar to what people do in KZT/SKZ; strafing uniformly and continuously from start to finish.

Normal strafing is all about the first 3 strafes. A good normal strafed long jump should have the first 3 strafes with specific air times and widths.

1st - ~20 air, ~40-45 width
2nd - ~15 air, ~30 width
3rd - ~10-15 air, less than 18 width
Rest of strafes - ~10-15 air, ~30 width (standard)



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..... jumped 252.8878 units with a Long Jump
VNL | 236 Block | 1.08 Edge | 8 Strafes | 90% Sync | 249.49 Pre | 324.66 Max | 0 W | 0 OL | 0 DA | 35.0 Deviation | 27.4° Width | 57.0 Height
| 0.781 Airtime | 0.0 Offset | 9 Crouched
  #.  Sync      Gain      Loss      Airtime   Width     OL     DA
  1.   94%      18.04     0.95      19%       42.9°     0      0
  2.  100%       9.14     0.00      15%       26.5°     0      0
  3.   75%       2.68     0.24      12%       16.9°     0      0
  4.   92%      13.02     0.91      13%       33.9°     0      0
  5.   92%      13.88     0.80      13%       34.9°     0      0
  6.   91%      11.67     1.36      12%       31.0°     0      0
  7.   75%       9.65     0.48      12%       30.1°     0      0
  8.  100%       1.82     0.00       4%        3.1°     0      0
```

The ideal normal strafe would look something like this:

1st - 20 air, 45 width
2nd - 15 air, 32 width
3rd - 15 air, 15width
The rest - 10-12 air, 30 width

Dead strafe (DS)
Dead strafing is when people do the weird 2nd strafe where they kinda stop. The weird 2nd strafe is to adjust for the dead zone during the jump.

It requires you to have a long and wider first strafe, a longer but narrower 2nd and standard strafes for the rest.

1st - ~20 air, ~40+ width
2nd - ~30 air, ~30+ width
Rest of strafes - ~10-12 air, ~30 width (standard)

Dead strafing is one of the best ways to strafe in VNL due to how air acceleration works where the first part of your jump has less air acceleration, meaning that it is harder to gain speed.

The ideal dead strafe would look something like this:

1st - 20 air, 45 width
2nd - 26-30 air, 30+ width
The rest - 10-12 air, 30 width

Binding

Binding in VNL refers to using the crouch jump bind AKA LJ bind. Crouch jumping gives you an additional 1.2 units of height, making you travel further. The jump height for no bind is 55.8 units and 57.0 for bind. LJ binds usually include -forward and give you perfect w release. However, having -forward is not recommended as it completely messes with your release timing and is not allowed in a few servers.

alias +jumpbind "+duck; +jump"
alias -jumpbind "-duck; -jump;"
bind mouse1 +jumpbind

Note that the LJ bind does not work when bound to scroll and the multiple inputs messes with your crouch stamina.

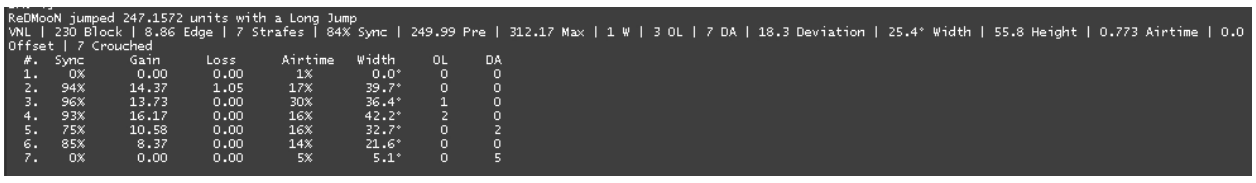
Nulls

Nulling is using aliases that prevent you from overlapping. Since you cannot overlap your keys, some people use nulls to “1 key”, which just means that you hold A/D and only press and release the other to strafe.

Nulling can have varied results on players. It is not recommended as you don’t need them to be good at kz. You also cannot do Ourfather tech on KZT with nulls.

However, if you still want to use nulls and become the player you always wanted to be, there are tutorials on youtube.

“Ghost” first strafe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5.	75%	10.58	0.00	16%	32.7°	0	2
6.	85%	8.37	0.00	14%	21.6°	0	0
7.	0%	0.00	0.00	5%	5.1°	0	5

Some people have it and this might be due to small mouse movements before and during the jump. A ghost strafe of 1 or 2 air time should not really be a problem but if you want to get rid of it, try to not move your mouse before your long jump.

How to LJ in VNL

To long jump, you want to run and get as much pre as possible. Once you reach that pre, jump and release your forward key at the same time and start strafing. There are 2 main styles of strafing in VNL; normal strafes and dead strafes. Each has their own ups and downs but dead strafing seems to be better according to the community.

It is very important to release forward at the right time and to not press the bind for too long if you're using it, as it will make you crouch during your first strafe, which is arguably the most important one.

To land a long jump block, your edge minus the distance of your LJ must be higher than the block gap. This is why edge is very important. You can consistently get low edge by practicing on blocks and looking slightly down to know where to jump.

Maps like nassau and baxter have good LJ rooms.

!distbug

Typing !distbug in most GOKZ servers will enable the settings. !strafestats will enable printing of distbug stats in your console.

Distbug does everything like GOKZ's stat registration system but better. It gives you additional info such as strafe efficiency and will also print stats even when GOKZ does not register one. If you do not care about having a wall of text, distbug is a good thing to have ON.

Reference: https://bitbucket.org/GameChaos/distbug/src/master/

!jsalways

!jsalways is similar to distbug but it gives you stats regardless of any movement that you make when landing or get teleported. Most of the time, it will give you inaccurate stats, especially for drops and uneven surfaces. This setting should not be used when you're trying to stat. While jsalways is active, your stats will not have tiers and will not register as PB.

Jsalways will always try to print a stat no matter what and it will give you useful information such as your edge when you failed a stat or when you walked off the edge.

To turn distbug, strafestats and jsalways off, type the command again.

!mhud

If you want to see your key presses, overlap and speed, you can enable mhud settings.
Type !mhud and enable speed and key presses. MHUD will tell you whether or not you overlap by changing key colour.

64 tick

Narrower strafes

Outro

The only reason why long jumping is so complicated is because of how air acceleration works in vanilla csgo. If you want to LJ far, you need to practice consistently. Being able to consistently land 240 blocks should be your goal if you are thinking of map running. There is much more about long jumps but I hope this helps.

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VIDEO DESCRIPTION

Long jumping/strafing in VNL (128 tick) might be the most important thing in the mode. Many people know how to strafe but due to how air acceleration works in VNL csgo, gaining speed is not easy. This video talks about different technical terms and the actual strafing techniques in VNL csgo.

More info:

Put references here
Ghost strafe
Add LJ bind here
Add nulling tutorial link here
Add link to zerok's air accel post