

MOH-AA GUIDE

SPECIFIED FOR REALISM & SNIPER ONLY



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MoH:AA Guide

Specified for Realism & Sniper Only



BLACK EDITION

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Introduction

Welcome to the MOHAA Guide, created by me, Brian a.k.a. Shadow. This guide is specified for Sniper Only & CK Realism, because **1.** CK Realism is being used almost on every server and **2.** I myself am a Sniper Only player and wanted to give something to the new generation of players/snipers.

Even though the guide is specified for these mods, roughly 90% of the guide will still be about MOHAA in general (including all weapons and default). So even for all weapon and/or default players this guide should still have a big function. More AW & Default info is added in versions above 1.0.

Obviously there will be a lot of players that might not need anything in this guide because there are a lot of good players still out there, who know most of these things. This guide is meant to help people who are new to MOHAA, who want to become better at the game or people who want to get some new ideas for playing. There is also a list of tips & bugs that have to do with MOHAA and its software, including a list of fixes for these bugs.

One of the first ideas was to put in a lot of specific tactics about spots in maps, but seeing as every map has a very high variety of tactics, this would be impossible. So the tactics have been generalized and it's meant for you to get your own ideas and create your own specific tactics in-game.

The idea and guide started roughly in 2011 with just making a small list to help some new Sniper Only players, yet it kept growing and growing slowly. Over time I figured why not make it accessible for the entire community. This is the reason why it's such a long guide; if you do a little bit every week, in 2 years you come to such a large amount of pages (plus University came first).

Next to information for players, there is also information for admins. Information is available on catching cheaters, protecting your server (crash fixes, anticheats, autokicks) etc.

The appendix will also include A LOT of files and documents to help players, admins, scripters, modders and mappers with various things. Just a collected, nice little bundle of useful items.

Tips when reading this guide

1. You can click on the chapters in the [Table of Contents](#) above to directly go to that page.
2. Hold **CTRL+F** simultaneously and you'll be able to fill in any word or sentence and look for that word/sentence in this guide. If you're trying to locate something quickly, this is the way to go. If you can't find anything with the word(s)/sentence you chose, try rephrasing it or find another word with the same meaning.
3. Text in **BLUE** letters is used to specify things and make them more visible. If anything in that sentence is white, you should basically ignore that part.
 - a. Used for exact key combinations on the keyboard (like shown in point 2).
 - b. To identify software, extension & file names ([WinZip](#), [server.cfg](#) or [.pk3](#)).
 - c. To identify specific tabs or phrases ([Configuration](#) or '[Kicked for high ping](#)')
 - d. To show how specific settings should be typed ([seta g_teamdamage 1](#)).
 - e. To show how specific commands should be typed ([rcon map dm/mohdm1](#)).
 - f. To show how to get somewhere in a program ([Options](#) -> [Advanced](#) -> [Settings](#)).
4. When you want to maximize 1 of the pictures/screenshots in the guide, hold your **CTRL** button and use your **middle mouse** (scroll)button to scroll forward to maximize or scroll backwards to minimize again. Pressing **CTRL+O** together will make it default size again.
5. Using the **End** and **Home** button on your **numpad** will help you to get to the bottom and top of the Guide in 1 click.
6. Using the **PgDn** (PageDown) and **PgUp** (PageUp) buttons on your **numpad** will help you to quickly scroll through the pages (downwards & upwards).
7. Text in **RED** letters is used to indicate something from other pages (chapters), links, the appendix or it's meant as a warning/notification.



1. Movement

The most used buttons to move around are **W, A, S & D**.

In MOHAA you're able to do the following movements:

- Walk normal (running)
 - Walk slowly
 - Walk forwards; backwards and sideways (left + right)
 - Lean sideways (left + right)
 - Crouch
 - Jump
- (hold) **SHIFT**
W, S, A, D
Z, C
CTRL
SPACE

The picture below is taken from the demo game of MOHAA, which shows what everything on your screen means (HUD) and what the default controls for the game are. This will give you some quick, basic and useful information about the game and how to play it.



(NOTE: In Multiplayer (Team Based Modes), the compass indicates direction & distance to your closest teammate and **NOT** the objective as shown above, as that's only for Single player! In addition; in Multiplayer FFA, the compass doesn't work at all.)



1.1 Rail Walking

Rails are implemented in many places throughout the map. The big advantage of the rail is that it will make you run faster compared to the normal walking surface/area. So whenever you need to get quicker from point A to B and there is a rail along the way, use it. Besides this advantage, you are also able to run silently on the rail; if you run just on the edge of the rail (without falling off the rail of course) you are able to run on it without making a sound. Paired with the run-speed, a rail can be a very useful way to surprise, confuse and/or outrun your opponent. Combined with a holstered weapon (unarmed) your run-speed will be at its max. There are also some ledges (walls) that will make you run faster & silently.

Do not run on the side of the edge of the rail where you are able to fall down and lose health



On a staircase (next to CR)



On the rail next to V2



On the rail D1 -> D2

1.2 Backwards Walking

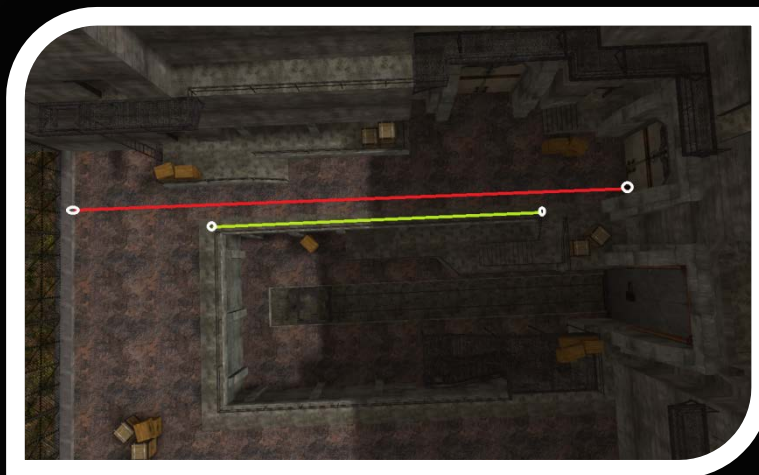
Running backwards (**S**) or walking backwards (**SHIFT + S**) will make you run and walk slower than when running and walking forwards. Thus you should only walk backwards if you need to keep your aim on a specific spot AND need to get out of there as soon as possible. This will avoid you getting shot in the back, and the price to pay is moving slower.

You can use it as a tactic, act like you're running away; the opponent will hear the sound of you running away but he might not know that you're keeping your aim on him.



1.3 Unarmed (Holstered) Running

When holstering your weapon (**Q**) (or if you have them, switching to a pistol (**1**) or grenade (**5**)) your run-speed will increase. This will give you an advantage when someone is following you; but also to simply get quicker from point A to B, and possibly confuse your enemy. For example: shoot him at point A, quickly run holstered to point B and kill him there, while he is still aiming at point A. The disadvantage in holstered running is of course that you cannot shoot when you bump into an enemy; you first have to get your weapon out, and any second that you cannot fire, your opponent can. So when running holstered, make sure you are running through safe/secure areas (Use *Time*, *Sound & Compass* to secure your safe holstered running path even more) and don't run holstered for too long. Be sure to grab your weapon a few seconds before you reach your destination and also start walking silently so that your position is not already in danger before you even get there.



Movement (Running) Type	Red Line (s)	Green Line (s)
Sniper	8	5
Holstered	7	4,5
Sniper, On Rail	-	4,5
Holstered, On Rail	-	4

As seen above, rail walking + holstering weapon boosts your speed, the effect might be that you only gain 1 second, but in First Person Shooters; 1 second can be the difference between life and death. And don't forget the 2nd benefit of rail walking, you can do this silently.

The most standard setting is that when you run holstered (or with a pistol/grenade) you will go as fast as the settings allow you (100%), and with a sniper in hand, you'll run 88% of the total run speed.

e.g.: *sv_runspeed* = 280

Holstered actual run speed = 280 (100%)

Sniper actual run speed = 246.4 (88%)

Some servers might have different settings, but the conclusion will mostly always be that holstering your weapon and walking on railing will increase your (run)speed. On some servers, the Axis move faster than the Allies as well, this might not even be noticeable, but adapt if needed.



1.4 Dodging

When someone returns fire on you, you obviously don't just stand there and take it all in. So what do you do? Right you try to dodge the bullets. How can one dodge a bullet? Matrix style? Well no...

There are several things you could do to dodge bullets. Some of these methods require much experience in the game as you need to know when your opponent is going to shoot and notice where he's actually aiming at, thus you can adjust your movement to your opponent.

- Know your opponent. If you know how your opponent plays, then that's a great step towards being able to dodge his bullets, as you know how he plays and shoots.
- Know and use your environment. If you can move yourself quickly through the map and around corners, you can avoid getting shot and even avoid your opponent being able to follow you.
- Use objects. There are a lot of objects in the map you can use to deflect bullets (rails, walls, boxes, poles, cars etc.). If the object is not big enough to hide your entire body then at least try to move around the object so that your opponent can't get a good lock on you. Also try to avoid the same pattern in movement. For example if you're standing behind a metal pole (trying to dodge bullets) and you move: left – right – left – right – left –right – left – right, then obviously your opponent will see this pattern and just aim at the right side and shoot when you're moving towards that position. So try to mix it up (also try to just stand still for a second behind the object before you start moving again, to mess up his aim).
- Use leaning and your other movement controls. Leaning is a great part of dodging; you should try to lean left and right non-stop while under fire. When you're behind an object you can quickly lean to make them shoot at you and lean back for cover. Also being in good control of all your movement buttons you can 'dance' around by running and leaning in every direction to make it annoying for the opponent to get a steady aim on you.
- Crouching and jumping are also ways to dodge bullets. If you look at the way your opponent is pointing his gun you can make out where he's aiming at. If he aims low you can jump and thus dodge his bullet (be careful because when you're in the air you have nowhere to go and you'll be an easy target). When he aims higher you can simply duck and dodge the bullet, which is a great tactic. When you feel an opponent is going to press the trigger you just quickly crouch/duck and they will miss you completely.

1.5 Feinting/Drawing in Fire

Feinting is peeking (and withdrawing right away) around a corner/wall/door, thus only briefly showing an arm or foot, whilst quickly retreating again. By doing this, you'll most likely make your opponent shoot at you (out of reflex). Though seeing as you will only show an arm or leg for a brief moment, it's highly unlikely the opponent would be able to hit you as reflex won't be able to catch up. Now you can do this at certain intervals so that the opponent keeps shooting at you, and thus wasting bullets. When all bullets are wasted you can go in and kill the opponent. Be careful though as there might be more opponents!

Now there is also a chance that your opponent realizes you're peeking around the corner at certain intervals and thus the opponent will start shooting right before you peek (pre-fire), which might lead to you getting killed. If you know your opponent is waiting for this, simply DON'T peek after the first or second time. Your opponent will get frustrated and just shoot, even though you haven't shown yourself and will not do so either. This **a)** wastes the opponent's bullets and **b)** protects you from any possible harm. Study your opponent's behaviour and pattern and then find your own pattern.

Lastly; even if an enemy does manage to hit you, because you only showed small parts of your body, it most likely will not kill you.



1.6 Clipping

Clipping is one of the most used bugs/tactics in the game. But what is it? A simple term would probably be shooting through missing textures in maps (in which case you cannot be seen by the opponent, but you can see him). This works when leaning left (not right!) around a corner or wall, of course you have to make sure not to go out too far or you will be visible, you just have to go as far until you can see a little opening where you can shoot if someone is passing by. Some people call this a bug, some call it a cheat and some call it a skill. It wasn't the intention of the creators to have this in, but it has been widely adopted into the MOHAA community, so we have to live with it. To counter clipping you either out-clip the other person or rush the person, while dodging his shots (creating a diversion/feint will make him shoot and miss, giving you the opportunity to rush in). As last resort you could also wait him out, patience is the key (though it might be a bit boring).



My View
(Aiming at opponents head)

Opponent View
(Does not see me)

Spec View
(How I am positioned)



My View
(Seeing my opponent)

Opponent View
(Does not see me)

Spec View
(How I am positioned)



1.7 Selfspecing

Selfspecing is also a bug in the game which also has been widely adopted into the community. There are 2 different selfspecing methods.

- One is when your team mate is dead and is spectating you. Spectators have a 3rd person view of the player they are spectating, thus they can see more than the living players and can tell the player where opponents are (through communication methods).
- The other one is when you are able to see opponents while they are unable to see you (though you have to sit in a certain position which makes it unable for you to shoot until you turn around, making you visible for the opponent). The player usually ducks behind a corner or wall and has his gun aiming towards the right while looking at the left, it is also important to lean to the left in this case. It is not possible to selfspec to the right.



My View
(Seeing my opponent)



Opponent View
(Does not see me)



Spec View
(How I am positioned)



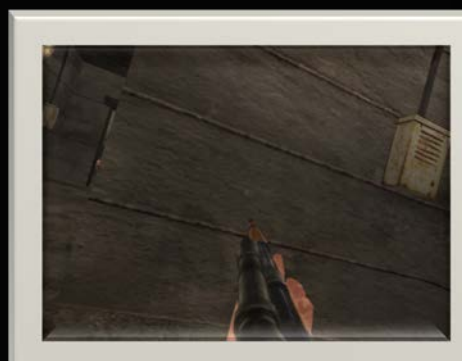
My View
(Looking down for spectator)



Opponent View
(Does not see me)



Spec View
(Spec sees opponent)



My View
(Seeing my opponent)



Opponent View
(Does not see me)



Spec View
(How I am positioned)



1.8 Jumping

Jumping (**SPACE**) has already been discussed a bit in **1.4 (Dodging)** but we'll go into it a bit further. As previously said jumping can help you dodge an opponent's bullet.

The danger lies in being in the air. When you're in the air you cannot utilize any of your movement controls, apart from leaning. This means you're practically defenseless whenever you are in the air.

When you're jumping from a high spot to the ground you should only do it when the situation allows you to do so. When you're low on health you should NOT do this. The perfect timing would be when your opponent is reloading, although there is a chance he will stop reloading and have enough time to still shoot you before you hit the ground. Though jumping while your opponent is reloading is still the best way to go.

When you jump you will be able to focus on shooting only as you cannot move, which does help improve your aim a bit and have a slightly better chance of hitting your opponent (although you have to realize your aim will mess up as gravity pulls you down, so aim for your opponents head or a bit above it to hit him). This works best when running & jumping from behind corners, walls or doors. You also avoid getting hit quicker as you will stay in a (fast) motion, instead of standing still.

When your opponent jumps it means you have a great opportunity to kill him. If he jumps on the spot then you simply aim in the air and shoot him, as he won't be able to move to any direction (like killing a person standing still). When an opponent jumps from a higher point towards the ground, you just have to aim a bit below him in the air and wait till he falls right in your aim and you will be able to shoot him instantly.

While moving through the map, jumping is of great importance as well. You can jump on objects to make it to the other side faster and thus decreasing the time you need to get somewhere. It's also the only way to get to certain spots you normally wouldn't be able to get to. When you want to jump on boxes or anything of a similar height you have to stand next to the object, jump, and at your highest point in the air (before gravity makes you fall down again) you press forward, thus you'll end up on the object. If you press forward too soon or too late you won't be high enough in the air to make it onto the object. You can practice this on V2 at the outside boxes (the furthest and also biggest boxes).

You're also able to jump from objects onto ladders to avoid losing too much time, as climbing a ladder takes a good amount of time if you start from the bottom.

1.8.1 Double Jumping

It's possible to perform double jumps in MOHAA. This means you can jump a 2nd time whilst being in the air after your first jump. This does require 2 players and great timing.

Basically you jump on another player, both run forward at the same time and jump off a ledge or railing, then whilst in the air, you can jump again on the head of the player below you in order to jump even further. This increases the length you can jump. I've personally done this on V2, on the South railing outside of **Control Room (CR)** (near **D2**) and jump straight into **CR**.

There's a video on YouTube made by fYCcreationZ which shows you how to perform a double jump. Check it out here: <https://www.youtube.com/watch?v=mtF8zTEgomI>



1.8.2 Slope Jumping

It's possible to gain extra height/altitude and momentum by running and jumping off an inclined area / slope. This makes it possible to reach higher points in the map. Especially custom maps tend to have these slopes but the stock maps have them too. For example jumping on the top bit of the Church roof in Hunt, the same with inclined roofs on Southern France and some broken ledges on Destroyed Village and there are more little spots. One spot is shown in screenshots below on the map: Remagen.



Normally this jump is way too high, as you almost have to jump as high as the size of your own player model. However due to the small inclined ledge (slope) of the little tree area, you can run and jump (when timed correctly) to gain altitude and jump on to the little roof as shown in the right picture.

1.9 Ducking/Crouching

Ducking ([CTRL](#)) was also covered a bit previously in [1.4 \(Dodging\)](#). There is not much more you can do with ducking, I will however give some pointers about why it's useful (apart from dodging bullets).

- When clipping/selfspeccing it improves your chances in aiming and not being seen.
- Ducking decreases the area you can be shot at; although it increases the amount of deadly area as most of the visible parts is 1-shot-kill.
- Teammates will be able to jump on you to reach higher spots or look over walls. (When they jump again you can stand up and your teammates will be able to look from an even higher point).
- Ducking is a great way to hide behind objects or even in the open. It will decrease your visibility.
- Some parts in stock & custom maps are only accessible by crouching. (For example the vent tunnels in V2.)
- Walking while being crouched decreases your movement speed (although you'll still make sound unless you silent walk, which decreases your movement speed even more).



1.10 Leaning

Leaning (Z & C) is a big part of the game, it's 1 of the things that is most known about MOHAA. People who play other Shooters are always so surprised by the way MOHAA players move (indicating their leaning from left to right while running). Leaning is a very important factor in MOHAA, more important than in any other game where it is used.

Leaning is important during clipping, selfspec'ing and dodging (which has already been explained in the respective topics above).

When running it is wise to keep leaning (and perhaps switch your leaning from left to right continuously). This will increase your chances of your opponent not killing you in 1 shot, because it is troublesome to aim at your head/neck. And when going around corners, walls and doors it is wise to lean to the side of which you came so that the first thing your opponent would see is your legs and body instead of your neck and head, which increases your chances of survival seeing as the opponents 1-shot-kill area decreases.

Leaning is used both for covering yourself and for getting an advantage in aim. Leaning around a corner will give you a visual advantage and it only leaves a small portion of yourself visible, so the opponent only has a small part which he can hit, although in that case he has a big chance of killing you in 1 shot, seeing as your head is the only part visible (so try to lean back and forward when checking around a corner to avoid getting hit).

Some people might have noticed it while playing, but when you lean from right to left (and as soon as you lean left you shoot a person) your accuracy increases. I've felt it whilst doing this myself but I found a theory about it which I'd like to share with you below.

" MoHAA is composed of hitboxes.

These hitboxes are generated in the player models to tell the game all the possible areas of which the player is hit.

However, MoHAA also has the, somewhat,... leaning simulator along with leaning animations. Since MoHAA is a First Person Shooter, these animations must be simulated in a FPS view. Now that you are leaning, you are changing the angles and physics of shooting a gun (at a hitbox) while aiming. Here is where the view angles come in. As you lean back and forth, the view angles shift in order to simulate the realism of real life (within the game's engine). The accuracy of hitting that hitbox is now changing.

Theory is, the time when the view angles shift from one lean to another, the accuracy increases until the shift is fully complete. Leaning the opposite way while you shoot at a hitbox, will cause this shift to take place, giving you better accuracy.

If you keep running and leaning one way... yes, it'll be less accurate. But if you lean the opposite way (from which you were leaning) while you shoot, your accuracy will increase."

(Source: electrickrypt)



2. Aim

2.1 Quickscooping

A 'skill' that is becoming more and more known, it's being used a lot in games like CoD MW & MW2, though those games do not require much skill. In MOHAA, quickscoping is not much used and people are more unaware of this skill. What is quickscoping? Quickscooping is when shooting, quickly zooming in your shot and zooming out again after you've shot. (Scope 0.1 second before you shoot, and Scope-out 0.1 second after your shot.) This improves the aim of the shot, because a scoped shot is more precise than a no scoped shot (see [2.5](#)). When quickscoping fast enough, you will hardly realize that you've actually scoped your shot at all. Do not stay in scope mode when quickscoping, cause it will concentrate your view on 1 small area and you will not be able to see other opponents. The name says it all *Quick Scoping*.

2.2 Close Combat Aiming

When fighting someone in close combat, the important thing to do is NOT panic or stress. It happens to players that when they miss their shot, they keep just randomly shooting trying to get their opponent; your aim will decrease when wanting to kill someone really badly. So when trying to kill someone in close combat, make sure you take the time to aim at your opponent, and of course in the meanwhile dodge your opponent's bullets. As soon as your opponent fires you have a window of a second or 2 (depending if it's an allied or axis sniper rifle, seeing as the axis sniper shoots much faster). In that short time you can take your time to aim, take a quick deep breath, sit down (crouch) perhaps and let your aim follow your opponent, see his movements and perhaps guess when he is going to walk in your aim, on which you can pull the trigger and get the kill. You have more time to do this when your opponent is reloading. Pay close attention to where your opponent is aiming. There is a chance he is aiming in front of you, waiting for you to walk into his aim. In that case, make sure you avoid walking into his aim; he would have to readjust his aim, which gives you time to shoot back.

2.3 Silent Shooting

A silent shot is what the name says it is; it's shooting without hearing the sound of the shot (this might not be completely true though, it sounds like the shot is being fired from far away, so it could be better described as like using a silencer on your weapon). To perform this kind of shooting, you will need to shoot and drop your weapon simultaneously; this will result in a silenced shot. There are upsides and downsides towards this type of shooting; the upside is that you will be able to confuse your opponents. They will be unaware of the location of your shooting, and if you get a kill, other opponents won't notice as quickly as to where from their team mate got killed. The downside however is that when you silent shoot, your weapon will be on the ground, which will make you defenseless for a few seconds, another downside is that people will be able to hear your weapon drop, thus being able to pinpoint your location (perhaps a little less accurate than when you're simply shooting without using the silent method). There are actually 2 main reasons for the use of a silent shot, 1 being the obvious (which is mentioned above already), trying to stay below the radar of your opponent. The 2nd one is a bit less obvious, though everyone is somewhat aware of this; it's to humiliate your opponent. Being silent shot by someone will be humiliating for most people, they might get (more) frustrated, or even want to return the favour, which will mostly mean that their aim and patience will go down, and when their silent shot misses, you will have your opportunity to strike back.



2.4-A Shooting through Metal

Perhaps 1 of the most hated and loved objects in the game, the metal walking surface with holes in it, mostly found on staircases and bridges. These objects have stopped many bullets and protected our lives several times, because a lot of the shots will be blocked by the metal. Now your bullet won't be stopped if you shoot through the holes in the metal, yet this is easier said than done. In a fight you cannot take the time to aim through 1 of those holes, while your opponent keeps moving (would be lovely if they stand still). Yet if your opponent is unaware of your presence, or cannot shoot you yet, aim through the holes at the location he's going to come from, I suggest you don't aim through the hole that is closest to the location you will spot him first, but 2 holes below, so that when he comes, you won't be too late with shooting.

As for tips for shooting through metal during a fight, there aren't many; just try to find spots where you have a more open aim (so you don't have to aim through metal) or just simply keep aiming and shooting at your opponent and wait till a shot gets through.

As for cover, it can come in handy as well. For example while reloading, you can keep track of your opponent, while of course keep moving yourself as well and have little chance of being killed. Also when you are unaware of someone's presence and he hits the metal, you know his position right away.



Top Main Stairs
(Aiming Down Main Stairs)

Top Truck
(Aiming Down Main Door)

D2/Railing Outside
(Aiming Down D6)



2.4-B Shooting through Metal #2

Whenever you are fighting someone through metal and you don't have time to aim through the holes there are also other ways to get the kill. Of course you can simply shoot through and hope the metal won't block your bullet, but there's a big chance that you will waste some bullets on that. There is an easier way to get the kill (depending on the spot though). At most rails / metal constructions there are also open spots where parts of your body are visible, I suggest you shoot him through there (you might have to wait until he passes an opening), because there won't be any metal that can block your shots.



Metal Stairs V2
(Aiming up at railing)



Metal Stairs V2
(Zoomed in version)



Main Stairs
(Aiming upstairs)



Vent room
(Aiming up at railing)



Metal Stairs V2
(Aiming at D1)



Metal Stairs V2
(Zoomed in version)



2.5 Sniper Speed & Aim Differences

There exists an interesting difference between the Axis KAR98 sniper and the Allied Springfield. In [CK Realism](#) mode (most played) the Axis sniper has a fire delay of 1.1 s (meaning it takes 1.1 seconds until you can shoot again after your previous shot), and the Allied sniper has a fire delay of 2.0 s. This means the Axis sniper roughly shoots twice as fast as the allied. The (Allied) M1 Garand Rifle is the fastest rifle, as it has a fire delay of only 0.15 s (though this comes with a very high recoil), the (Axis) Mauser Rifle has no recoil (like the snipers) and shoots as fast as the Axis Sniper (1.1 s). Now the table below shows the differences in accuracy between the Axis & Allied snipers. In game terms this is called the 'bullet spread' (the minimum and maximum amount in length that your shot can deviate from the exact point that you shot at, on the X and Y axis). Pitch is vertical aim & shot and yaw is horizontal aim & shot. The numbers you will see in the table below indicate this deviation, in layman's terms; **the lower the number, the better the aim.** ([CKR](#) & [SO](#) mod found in [Appendix 16.](#))

e.g.: I shoot un-zoomed with Axis sniper, my shot will deviate from the exact location I aimed and shot at between 59 and 150 (in millimeters I'm guessing). When zooming, this deviation becomes less, between roughly 2.7 and 6.8 mm, meaning my accuracy increases drastically, because your shot won't deviate more than 2.7 to 6.8 mm of the point you aimed & shot at.

Sniper & Rifle Accuracy

	Minimum pitch	Minimum yaw	Maximum pitch	Maximum yaw	Movement Speed	Bullet Damage	Bullet Range	Fire Delay
(Axis) KAR98 sniper	59	59	150	150	1.0	106	4000	1.1
(Allied) Springfield	59	59	140	140	1.0	106	4000	2.0
Zoomed KAR98	2.655	2.655	6.75	6.75	1.0	106	4000	1.1
Zoomed Springfield	3.363	3.363	7.98	7.98	1.0	106	4000	2.0
KAR98 Mauser rifle	2	2	65	65	1.0	106	4000	1.1
M1 Garand Rifle	10	10	80	80	1.0	104	4000	0.15
Fired Mauser Rifle	2	2	65	65	1.0	106	4000	1.1
Fired M1 Garand	1.5	1.2	13000	52	1.0	104	4000	0.15

Conclusion: 1. Springfield is more accurate un-zoomed, KAR98 is more accurate zoomed.
 2. Both snipers have a much higher accuracy when being zoomed. (Quickscope your shots!)
 3. The difference between the snipers in zoomed mode is so small, it can be neglected.
 4. The M1 Garand has very high recoil; the KAR98 Mauser & Snipers have no recoil.
 5. The rifles have a higher accuracy than the non-scoped/non-zoomed snipers.



This opens doors to many tactics, from both an allied and axis point of view. The advantage of shooting faster is that in especially close combat; you'll have kind of an extra chance of hitting/killing your opponent, because your weapon shoots twice as fast. When quickscoping (or simply zooming in on) your opponent, your chances of hitting him will increase as well. The disadvantage is that **1.** You'll run out of bullets faster and **2.** You're more likely to spray (shoot with less aim/accuracy), simply because you can. The advantage for the allies is that you still have at least 1 bullet left when the Axis needs to reload, meaning you can take your time to aim at him and kill him.

The general tactics regarding this subject are that an Allied will wait and not shoot (too) much, until the Axis player needs to reload (and then the allied will take action). An Axis player tactic could be that he will lure out his opponent using a pre-fire (shoot before seeing your opponent) so that your opponent comes out (with the intention to make use of the fire delay of the axis weapon), though the allied will almost always not realize that 1.1 second is over before you realize it, thus the axis will almost instantly shoot you again when you make yourself appear. An Axis can also take advantage of the slower Springfield, by making a diversion/feint around a wall/object/corner (meaning you'll act like coming out, though only showing an arm or a foot and instantly retreating again), which will make the allied shoot and miss (or hit without it being fatal) which gives the Axis 2 seconds (which is a lot) of going in and shooting (hopefully killing) the allied.



2.6 Accuracy and Aim of All Weapons (Realism)

Next to the snipers and rifles there has also been a table made for all other weapons and the grenades. Again for pitch & yaw settings, the lower the number the better the accuracy. This is the same for Fire Delay, the lower the number the faster the weapon is able to shoot. Obviously you want high numbers for Range, Damage and Movement Speed.

As in the sniper table, the **green** text is indicative of an allied weapon and the **red** text for an axis weapon. The **white** text in this case is the shotgun, which is the same for both teams.

Also like the sniper table, all these settings are based on the **CK Realism** mod (as default is hardly ever played).

Weapon Accuracy

	<u>Colt</u>	<u>P38</u>	<u>Thomp.</u>	<u>MP40</u>	<u>BAR</u>	<u>STG</u>	<u>Shotty</u>	<u>Bazooka</u>	<u>Panzer</u>
Minimum pitch	60	70	70	60	12	10	80	5	5
Minimum yaw	60	70	70	60	12	10	80	5	5
Maximum pitch	130	130	130	130	52	53	95	500	500
Maximum yaw	130	130	130	130	52	53	95	500	500
(Firing) Minimum pitch	34.8	40.6	21	18	4.56	4.75	80	5	5
(Firing) Minimum yaw	30	35	42	36	8.16	5	80	5	5
(Firing) Maximum pitch	26000	26000	19500	19500	10400	10600	95	500	500
(Firing) Maximum yaw	78	78	32.5	32.5	78	42.5	95	500	500
Bullet Range	4000	3120	4000	4000	4000	4000	1000	-	-
Bullet Damage	75	60	75	60	104	80	15	200	200
Movement Speed*	1.0	1.0	1.0	1.0	0.85	0.85	1.0	0.6	0.6
Fire Delay	0.14	0.16	0.086	0.086	0.12	0.086	0.75	9.0	6.0
Bash Range	96	96	-	-	-	-	-	-	-
Bash Damage	35	35	-	-	-	-	-	-	-

*The movement speed at 1.0 means 100% of the actual movement speed, thus equal to moving holstered. A value below 1.0 means moving slower than the actual movement speed.

By observing these values you can perhaps make better decisions as to what weapon you want to use in different maps and situations. Some weapons spray more than others and thus have higher recoil and do less damage and some fire slower but do more damage.

Grenade Settings

	<u>M2 frag grenade</u>	<u>Steilhandgranate</u>
Movement Speed	1.0	1.0
Fire Delay	0.75	0.75
Secondary Fire Delay	0.75	0.75
Min. charge time	0.6	0.6
Max. charge time	4.0	4.0
Secondary Min. charge time	0.5	0.5
Secondary Max. charge time	1.5	1.5
Min. Speed	600	600
Max. Speed	1000	1000

As you can see, the values are the same for both grenades.



2.7 Accuracy and Aim of All Weapons (Default)

The below tables are the same as the ones in [2.5](#) and [2.6](#) only with different values for the default (stock) game-type. Information about the tables can be found in those chapters (above). The biggest changes are mostly that the weapons do less damage but at the same time the recoil is also mostly decreased to make the aim steadier. Movement speed for some weapons has also been decreased and for some increased. The Fire delay has also been increased and decreased for some weapons.

Sniper & Rifle Accuracy

	<i>Minimum pitch</i>	<i>Minimum yaw</i>	<i>Maximum pitch</i>	<i>Maximum yaw</i>	<i>Movement Speed</i>	<i>Bullet Damage</i>	<i>Bullet Range</i>	<i>Fire Delay</i>
(Axis) KAR98 sniper	59	59	150	150	0.8	106	4000	2.0
(Allied) Springfield	59	59	140	140	0.8	106	4000	2.0
Zoomed KAR98	3.245	3.245	8.25	8.25	0.8	106	4000	2.0
Zoomed Springfield	3.245	3.245	7.7	7.7	0.8	106	4000	2.0
KAR98 Mauser rifle	2	2	65	65	0.94	90	4000	1.1
M1 Garand Rifle	10	10	80	80	0.94	48	4000	0.15
Fired Mauser Rifle	2	2	65	65	0.94	90	4000	1.1
Fired M1 Garand	7.5	6	16000	64	0.94	48	4000	0.15

Weapon Accuracy

	<u>Colt</u>	<u>P38</u>	<u>Thomp.</u>	<u>MP40</u>	<u>BAR</u>	<u>STG</u>	<u>Shotty</u>	<u>Bazooka</u>	<u>Panzer</u>
<i>Minimum pitch</i>	60	70	40	38	12	10	80	5	5
<i>Minimum yaw</i>	60	70	40	38	12	10	80	5	5
<i>Maximum pitch</i>	130	130	50	50	52	53	95	500	500
<i>Maximum yaw</i>	130	130	50	50	52	53	95	500	500
<i>(Firing) Minimum pitch</i>	34.8	40.6	12	11.4	4.2	4.75	80	5	5
<i>(Firing) Minimum yaw</i>	30	35	24	22.8	7.8	5	80	5	5
<i>(Firing) Maximum pitch</i>	26000	26000	7500	7500	8320	10600	95	500	500
<i>(Firing) Maximum yaw</i>	78	78	12.5	12.5	36.4	42.4	95	500	500
<i>Bullet Range</i>	4000	3120	4000	4000	4000	4000	1000	-	-
<i>Bullet Damage</i>	30	35	25	25	30	27	17	200	200
<i>Movement Speed</i>	1.0	1.0	0.96	0.96	0.89	0.89	0.99	0.75	0.75
<i>Fire Delay</i>	0.14	0.16	0.086	0.086	0.12	0.086	0.75	1.0	1.0
<i>Bash Range</i>	96	96	-	-	-	-	-	-	-
<i>Bash Damage</i>	35	35	-	-	-	-	-	-	-

Grenade Settings

	<u>M2 frag grenade</u>	<u>Steilhandgranate</u>
<i>Movement Speed</i>	1.0	1.0
<i>Fire Delay</i>	0.75	0.75
<i>Secondary Fire Delay</i>	0.75	0.75
<i>Min. charge time</i>	0.6	0.6
<i>Max. charge time</i>	4.0	4.0
<i>Secondary Min. charge time</i>	0.5	0.5
<i>Secondary Max. charge time</i>	1.5	1.5
<i>Min. Speed</i>	600	600
<i>Max. Speed</i>	900	900

The difference between Realism & Default grenades is the maximum speed it can obtain, which is 900 in Default and 1000 in Realism. Meaning you can throw a grenade further in Realism.



2.8 (Sniper) Rifle Reload Animation Speed

The reload animation speed between shots for snipers & rifles knows 3 different possibilities. Each possibility is faster than the previous one, meaning you're able to shoot faster in succession when utilizing the fastest possibility/reload animation.

These speeds are for the axis sniper & rifle and for the allied sniper, NOT the allied rifle.

Below you'll see the 3 different speeds (categorized in: **Slow**, **Medium** & **Fast**) and the way to achieve them. All these differences are accomplished via different movements whilst shooting.

NOTE: The following factors have **NO** influence on the reload animation speed:

- 1) Leaning (see [1.10](#)) 2) Surface Type (metal/stone etc.) 3) Rail Walking (see [1.1](#))

NOTE #2: Forwards & Backwards movements include Strafing whilst moving Forwards or Backwards

Rifle Reload Animation Speeds – Detailed			
	Slow	Medium	Fast
Running Forwards		X	
Running Backwards		X	
Strafing Left		X	
Strafing Right		X	
Standing Still			X
Jumping (On the spot)			X
Jumping (Forwards)			X
Jumping (Backwards)			X
Jumping (Strafing Left)			X
Jumping (Strafing Right)			X
Crouching (on the spot)			X
Crouching (Forwards)			X
Crouching (Backwards)			X
Crouching (Strafing Left)			X
Crouching (Strafing Right)			X
Crouch Walking (Forwards)			X
Crouch Walking (Backwards)			X
Crouch Walking (Strafing Left)			X
Crouch Walking (Strafing Right)			X
Walking (Forwards)			X
Walking (Backwards)	X		
Walking (Strafing Left)	X		
Walking (Strafing Right)	X		

A simplified version is shown below, which is less detailed but you can see everything at one glance.

Rifle Reload Animation Speeds – Simplified			
	Slow	Medium	Fast
Running (Any Direction)		X	
Standing/Sitting Still			X
Jumping (On the spot)			X
Jumping (Any Direction)			X
Crouching (Any Direction)			X
Crouch Walking (Any Direction)			X
Walking (Forwards)			X
Walking (Backwards)	X		
Walking (Strafing)	X		



2.9 Burst Fire & Rapid Fire

There are situations where it's better to use burst fire and situations where you'd want to use rapid fire.

Burst fire is the firing of a weapon in bursts (meaning that you don't hold your left mouse button non-stop but let it go every few seconds). This means you only shoot a few bullets, then wait and shoot a few again. This method of firing makes sure your recoil doesn't get too high and thus your bullet spread won't get too high, meaning that your accuracy is maintaining a good status (although you will shoot slower than rapid fire). It's basically 'semi-automatic fire'.

Rapid fire is the firing of a weapon without stopping. Basically you keep holding your left-mouse button without letting go. This means you will shoot a lot of bullets, really fast. This method of firing causes your recoil to increase and thus your bullet spread will increase, meaning that your accuracy will decrease after every bullet fired. Rapid fire is basically the same thing as 'full automatic fire' or 'spraying'.

Information about the recoil / bullet spread of the weapons can be found in [2.5](#) for rifles/snipers and [2.6](#) for all other weapons. These chapters include tables, in these tables the higher the value of the yaw & pitch (when fired and not-fired) the higher the recoil / bullet spread is. The fire delay in these tables will show you how quick the weapon is able to fire after the previous bullet, thus you can find out which weapon is faster. The faster the weapon also means the higher the recoil.

In close-combat situations the best thing to do is use rapid fire as you will most likely be able to hit the opponent with every bullet. In long range situations you'll want to use burst fire as after one bullet the recoil could already be too high and you'll miss the opponent completely. Basically the farther away the opponent, the more burst fire you'll want to use. This means that you'll have to use less and less bullets in every burst when the distance of the opponent increases.



2.10 Reloading

Even reloading (R) creates opportunities for tactics. Few tips will be listed below.

- When reloading it's important to either hide or dodge the opponent's bullets. When you know you have to reload soon, make sure you move in the direction of any object or doorway that could give you a quick escape.
- Reloading 1 bullet during a firefight every few shots will keep your bullet count up as long as you have the chance to reload (for snipers, rifles & shotguns).
- An axis sniper rifle shoots almost twice as fast as an allied sniper rifle, so an axis can actually shoot (and miss) to lure a target out and shoot the target for real this time before the allied has a chance to shoot back.
- You can act like you're trying to reload and quickly click on your shoot button which will stop the reload (no reload will have taken place) and shoot your opponent who tried to grab his chance to kill you in the reload.
- You can actually speed up your reload and end it before the actual reload animation is complete. As soon as you hear the bullet being put in the rifle you can click with your left mouse (shoot button) to end the animation and the bullet will have been loaded which means you can shoot straight away. It will save you maybe half a second and is quite vital in a firefight.
- You can mess with people's minds when reloading. If you have for example 4 bullets in your sniper and shoot 3, you'll reload 3, shoot 3 again, and reload 3 again, by this time the opponent will think you actually only have 3 bullets every time max. so you move in a bit closer while shooting the 3 bullets, your opponent thinks you're going to reload and tries to rush in and kill you. In the meanwhile you actually have 1 bullet left and use it to take him out. Of course it's always better if you can kill the opponent without wasting many bullets, but some firefights tend to last long (especially when it's being held on metal stairs or between lots of objects).
- You don't have to reload all your bullets at once every time. If you're being hunted then try and reload 1 to 3 bullets, if you try more than 3 then you're probably already dead before you finish the reload.
- Make sure you can see/hear opponents come while you're reloading so you can stop the reload before you get shot at.
- If you're reloading and about to walk through a door or you're moving past open doorways or open areas in general; finish reloading before you do so! If you're in the middle of a reload whilst casually walking through a doorway and you get surprised by an opponent, you won't be able to shoot right away and lose the advantage and possibly your life.



2.11 Pre-Fire

The art of pre-firing. The name kind of gives it away, but it means shooting before you actually see an opponent. These types of attacks sometimes look like cheats, because in theory you are shooting before you see the opponent. So admins be aware! Just because someone shoots before seeing an opponent does NOT mean he is cheating.

There are a lot of spots in each map where people would like to sit or camp. If you know where people can sit you can just shoot around the corner/wall/door without even looking and hope to get a kill. It will give you a huge advantage as the opponent will simply be too late with his shot, all he can do is hope you miss so that he has a chance to shoot back.

Next to knowing the spots where people can sit, you also need to pay close attention to your sound. If you hear someone run you can kind of figure out his position by the level of sound he is producing (footsteps coming closer or further away) and thus you can just shoot around a corner at the point where you expect your opponent to be walking. It might look like you're wall hacking but you're simply making good use of your sound. (With a MG you can also start spraying when you hear an opponent who is about to walk around the corner into your aim, won't work with a sniper of course.)

Next to hearing your opponent continuously, it's possible that you only heard a door open or a gun reloading or any sort of sound. If the sound stops but the opponent is not coming out, he's most likely camping or REALLY taking his time. On most locations this will give you a good idea in which spot the opponent is most likely sitting and thus you have a more accurate chance of getting a kill with your pre-fire (in comparison to randomly shooting at spots where people could sit).

If you utilize your sound and experience you can easily outshoot cheaters as well. They might be able to see you through walls, but they would never expect someone to locate them through walls by the use of sound and experience (and other factors most likely).



2.12 Pre-Aiming

Next is pre-aiming. I'd define this as aiming on the position of your opponent before the opponent shows himself OR aiming towards the position you want to shoot at before going around the corner to actually shoot (which happens during pre-firing).

Aiming on the position an opponent might come could be considered camping but is also a great tactic. If you know what an opponent is going to do or if you heard him you can simply aim on the spot he's going to cross and shoot as soon as he does. You aim in advance to have a higher percent chance to get the kill. If an opponent comes around a corner, some people will tend to aim not directly at the corner but a little bit in front of it (thus making sure you don't accidentally hit the wall or avoid any shooting delay and missing the opponent if he already past the corner too quick). Zooming in while doing this will increase your aim and accuracy.

You could also yourself be behind a wall or corner and want to pre-fire an opponent (or a spot where an opponent could be at). In this case you need to focus your aim in such a way that when you walk around the corner/wall you have a direct aim on the spot you want to shoot at so you only have to pull the trigger.

Another type of pre-aiming is also possible when you've seen your opponent already. Mostly it's exactly the same as the above. You quickly peek around a corner or above boxes and you notice your opponent. You quickly hide again with the knowledge that the opponent spotted you and is now aiming directly at your position. You also target the spot you want to shoot at and as soon as you come around the corner you can automatically shoot (pre-fire) at the spot and kill your opponent before he kills you. This is also possible behind objects; if you're crouched behind boxes or other objects and you've spotted your opponent, adjust your aim such that as soon as you standup you can shoot at the spot where your opponent is located before he can shoot back.

A perfect example of this can be seen on the following old demo, recorded by Admir from the old United Warriors clan: [CLICK HERE](#) (Between 4:35 and 4:54.)



2.13 Friendly Fire

Friendly fire is sometimes an annoying feature in the game (though realistic).

Before a war (or even in publics) always make sure if friendly fire (also referred to as 'Team Kill') is on or off. When a team mate is in a firefight with an opponent you have to make sure to shoot only at the opponent and not your team mate, so you might need to wait a bit longer before you can actually pull the trigger.

If there are hackers or abusers in the server, team kill is a great way to annoy them and hopefully make them leave.

If you come across a group of opponents and friendly fire is on, make sure to use the closest opponent as a shield whilst fighting your opponents. Thus chances are higher that your opponents will shoot their teammates before actually hitting you, giving you a higher chance of survival. Using them as a shield requires some movement skills as you have to make sure not to get hit by anyone while trying to keep the closest opponent in the line of sight of the other opponents.

If a teammate walks around a corner you might accidentally shoot them and with friendly fire on that can be really annoying. To avoid this make sure you watch your compass to see where the closest teammate is located. You can keep track of your teammate and if no teammate is close then the person that comes around a corner will be an opponent. (Of course there are situations where a teammate is close and in the same direction but perhaps downstairs and thus an opponent could surprise you by coming around the corner and you hesitate to shoot.)

If an admin wants to turn friendly fire on or off they will have to use the following rcon command:

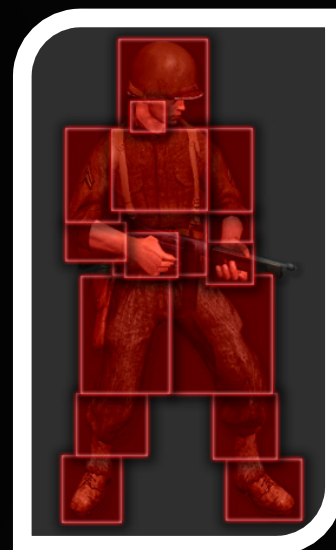
Console: `rcon g_teamdamage 0` (0 = friendly fire off, 1 = friendly fire on)

Server.cfg: `seta g_teamdamage 0` (0 = friendly fire off, 1 = friendly fire on)



MOHAA player models are composed out of hitboxes; these hitboxes are generated in the players model to tell the game all the possible areas of which the player can be hit (and how much damage will be done). A better description is shown below, quoted from the Valve site.

Below you can see a few pictures of hitboxes on player models in different games (the last (right) one is for MOHAA).



As the pictures already indicate, there are boxes all over the models which can be hit (each box indicates a different damage area/wound and damage %).

In MOHAA there are some interesting bugs and mods which make us take a new perspective on the hitboxes.

A known bug in MOHAA is sharking. A sharky is completely misshaped and is ‘swimming’ on ground level. The hitboxes are still at the same locations on the model BUT the model is so misshaped that it’s completely on ground level so all you really need to do is shoot at the ground to kill the player. This is somewhat weird as the view from the sharky is still normal, thus if he’s standing behind a box, he can still kill people but people can’t kill him. Sharkies can also run as fast with a gun as without and they run silently. This gamebug is thus considered a big cheat. (*File that fixes this server-side (zzzzzzzzzzzzzzzzzzzz Reborn pak8.pk3) is available in Appendix 1.*)

Some mods in MOHAA can make a player really big (a giant). People tend to shoot at what they see but the hitboxes are actually still the same as a normal player, so shooting in the low-middle area of the Giant will hit him.



- **Midgets**

Some mods in MOHAA can make a player really small (a midget). As said before, people tend to shoot at what they see so they will shoot at the tiny player, BUT as well as with the giant; the hitboxes are still located in the same place as a normal player. So all you have to do is aim above the midget (where a normal player's body would be) and you can kill him.

It's best to include a picture for better understanding, so here below are 2 pictures. The pictures show from left to right: a sharker, a midget, a normal player and a giant. The left picture is a simple picture of the view of a player; this is how players will see these 4 different model types. The right picture is the same, only with red boxes (squares/rectangles) included. These red boxes indicate the hitboxes, so only in these red boxes can you shoot that specific player. If you shoot outside of these boxes you will not hit the player. So basically the only model-type where the hitboxes actually change are for the sharkers (and for pinged players, which will be shown on the next page).



From left to right: sharker, midget, normal, giant



- **Inanimate Objects**

Some mods are able to transform people into objects. As this is part of a punishment mod, these objects cannot shoot back (but can move). Here as well the hitboxes are still at the same location as a normal player model. But seeing as there are a lot of different sized objects (tree, clock, dog, plane, tank etc.) you have to find out the location of the player model in the object. Once you find it, you know what part to shoot at in the future.

- **Pinged Players**

A player can be pinged (999 ping) from the start of the game or suddenly get pinged (crash) during the game. When it happens at the beginning the player will be floating in the air, now you can just shoot at what you see and you will get the kills (Thus just shoot at him in the air). When a player gets pinged while walking in the map it will show them being stuck in one place but still making a walking movement (running on the spot). For some reason this is a bit bugged and even though you hit the player the bullets go right through him. I'm not sure where the hitboxes are and I think they keep changing due to the continuous movement of the player. Safest bet is to just hit him in the center mass where it is most likely you will get a direct hit. Still you might miss some bullets so be careful.



Example of a player pinged upon round start (floating in the air). You can just shoot him without a problem.



- Bug Spots

There is 1 known bug spot where there are differences with what you see and where you need to hit. This is on Omaha, on the fences. When you climb on the fence you get stuck and can't move, but for some reason everyone else can see you float around through the map. What they see is some sort of illusion as they cannot hit what they see; the only way to kill the person is to shoot at the place he got stuck (while you won't see any one in that spot). On a side-note, the person that's stuck has an aim problem. For some weird reason your illusions aim is your real aim, thus you have to guess where your floating body is (by looking where people are shooting at) and then guess where to aim to actually hit an opponent. It's a good bug for decoy but not for killing.



All the **green** squares indicate the position of the player; the **red** squares indicate the illusion (fake player).



The last picture shows the view from the bugged player (weapon keeps on rising).



2.14.1 Kill/Damage Locations & Damage Multipliers

The game has specific locations on the body that can be targeted for damage (hitboxes basically). All these locations have their own damage multipliers; this way you can calculate e.g. the damage each weapon does against each hitbox (as shown in [5.2.1 Bullet Damage](#)). Modders or scripters might find more use with this information. Some examples are Elgbot (for serverside statistics on where players were hit/killed) or any other mod that for example helps identify headshots. The Reborn damage and killed events pass this information to the script handler as arguments.

Damage multipliers are what helps determine the damage a player will be dealt according to where they were hit. This damage is calculated by using the inflicting players weapon damage, multiplied by the location the player was hit. Head and neck shots deal twice (2.0) the weapon damage, where shots to the hands and feet give half (0.5) the weapon damage. Generic hits such as those from grenades, rockets, bash etc. give base (1.0) weapon damage. This information can help modders to create mods such as Head-Shot only servers, by decreasing the other damage location multipliers to 0 except for the head, so players can only be killed by a headshot. These settings are applied for individual players and reset each spawn, so will need to be applied with some kind of spawn event or script. Other uses could be to aid players in gametypes where they are singled out and might need a little extra help, be this by making them headshot only, or by making it take more shots to kill them.

Credits: Purple Elephant1au

The locations (hitboxes) and their multipliers are shown in the table below.

Ref. Number	Damage Location	Damage Multiplier
-1	General (bash, rocket, mine, suicide, grenade etc.)	1.00
0	Head	2.00
1	Helmet	2.00
2	Neck	2.00
3	Upper Torso	1.00
4	Middle Torso	0.95
5	Lower Torso	0.90
6	Pelvis	0.85
7	Upper Right Arm	0.80
8	Upper Left Arm	0.80
9	Upper Right Leg	0.80
10	Upper Left Leg	0.80
11	Lower Right Arm	0.60
12	Lower Left Arm	0.60
13	Lower Right Leg	0.60
14	Lower Left Leg	0.60
15	Right Hand	0.50
16	Left Hand	0.50
17	Right Foot	0.50
18	Left Foot	0.50

Example: A Colt45 does 75 base damage (`dmbulletdamage`). A player shoots this pistol on the [upper right arm](#) of an enemy. If you look in the table above, it shows the damage multiplier of the [upper right arm](#) is 0.80. So: $75 \times 0.80 = 60$. This means the actual damage is 60 and thus the enemy will lose 60 hp. You can find the `dmbulletdamage` of each weapon in their `.tik` files, which are located in `Pak0.pk3` (or any mod like `CKR`) in the `models\weapons` folder. More bullet damage info can be found at: [5.2.1 Bullet Damage](#).



3. Senses

3.1 Sound (Ears)

A lot of things in the game make a sound. If you get used to your speakers/headset you will be able to know which direction the sound is coming from. If you distinguish what sound belongs to what action you will be able to know exactly what people are doing without seeing them; because you can hear what they are doing. (Assuming you also know the layout of the map.)

The following actions make (different) sounds in-game:

- | | |
|---|-------------------------------------|
| • Bomb explosion | - Crate being broken |
| • Bomb ticking | - Bashing an object |
| • Bomb beeping | - Bashing a player |
| • Running & Jumping in water | - Bashing in the air |
| • Running & Jumping on wood | - Health pack – taking it |
| • Running & Jumping on stone | - Ladder climbing |
| • Running & Jumping on grass/earth | - Glass – hitting it |
| • Running & Jumping on metal/railing | - Glass – breaking it |
| • Door opening | - Barrel leaking |
| • Door closing | - Barrel getting hit |
| • Door blocking | - Barrel blowing up |
| • Door locked | - Hitting water |
| • Players falling (and lose health) | - Hitting metal (door/railing etc.) |
| • Players getting shot/hit | - Hitting wood (door/walls etc.) |
| • Players taunting | - Grenade Explosion |
| • Weapon – dropping it | - Grenade throw |
| • Weapon – reloading it (diff. for all weapons) | - Grenade bounce |
| • Weapon – shooting it (diff. for all weapons) | - Suicide/Crater |
| • Weapon – taking it | - Killing a player |
| • Weapon – holstering it | - Melting (Freeze-Tag) |
| • Weapon – switching to a different one | - Grabbing/Planting Flags (CTF) |

3.1.1 Remove Sound

Clientside

To remove the background noise in MOHAA; simply bind [cinematic](#) to a key, or type '[cinematic](#)' in console (for more details on this matter check [8.3](#)).

To remove the music from the menu you can also use cinematic to get rid of it, or go to the [In-game Menu](#) -> [Options](#) -> [Sound](#) -> Put [musicvolume](#) all the way to the left (turning it off).

Serverside

Background noise can also be disabled serverside, meaning all players in the server will have their background noise (or *cinematic*) disabled automatically, without the need for a bind.

Open up either [Pak7.pk3](#) and/or [Pak5.pk3](#) (with [PakScape](#) or [WinRar](#), see [8.12](#) for more information) as they contain the map files that need to be edited. Go to [maps\dm](#) and/or [maps\obj](#) folder, depending on whether you use DM or OBJ maps on your server. Open the map file(s) from the maps you're running on your server, e.g. if you run V2, go to [maps\obj\obj_team2.scr](#). Now remove the line that states "[exec global/ambient.scr obj_team2](#)" ([obj_team2](#) can be replaced with other map names) (it's located somewhere below '[level waittill prespawn](#)') now save the file and replace it with the original map.scr. Now save the pk3, upload it, restart your server and you're good to go!



3.1.2 Footsteps

When a player is not silent walking, you can hear him run and thus hear his footsteps. In the same way it is possible to hear several footsteps at once. With experience you can learn to distinguish several different footsteps coming from the same spot and thus know how many opponents are in a certain location. For example in the map V2, you can stand as an axis behind main door and in your head count the footsteps you hear actually passing the door to long hall. After 3 or 4 players it becomes a bit of a guesswork and there is always a chance that a player walks back or walks silently, but it will at least give you a pretty good guess as to where players are located and heading towards.

Also when you run while juggling your weapons (which means you scroll through your weapons rapidly and continuously) (assuming you have more than 1 weapon with you, like a pistol and grenade), you will not make any footstep sounds, only the sound of you juggling your weapons. The sound distance of the juggle sound seems to be lower than that of footsteps, thus you can get closer to an enemy before they hear you. Though it has not yet been tested that the sound distance actually decreases. Plus the enemy will hear you eventually anyways so it's better to just silent walk.

3.1.3 Sound Echo

When a player shoots, the last bullet will leave a sound echo which follows the player that shot the bullet. If an opponent shot you behind a door and the door closes on you, you will still be able to know where the opponent is going by listening to the echo of his shot. If the sound of his bullet remains behind the door that would mean that the player is still there. If the sound travels to the right, away from the door that would mean the player is heading towards the right. All in all you get a pretty good idea of where your opponent is located just by the echo of his shot. Little things like this open doors to many possible tactics.

3.1.4 Absence of Expected Sound

The title might seem a bit confusing, but what if you expect to hear a sound and it's not there? For example: You open Door 2 in the map V2, take a peek outside and run back inside. Normally you'll hear the door close in a matter of seconds (by experience you know exactly how long it takes for each single door to close), but what if you don't hear the door close or if it takes longer to close than normally? It is most likely that someone else went through the door after you or is standing in the door opening, make sure to double check your compass if it could be one of your teammates, if not it is most likely an opponent. Anything out of the ordinary can most likely be an opponent. Sometimes the absence of sound can be your biggest ally.

3.1.5 Sound Trickery (Psychology)

Sound can help you indicate where people are and what they are doing, thus it is one of the most important factors of the game that people rely on. At the same time people can abuse your sound experience and trick you, thus sound can be your biggest friend and your worst enemy. In this case sound is used on a more psychological level and it all comes down to the person who planned most steps ahead (and obviously skills & luck). It's impossible to really begin to name all different ways of using sound to trick people, but a few examples will be given below and who knows it might get you thinking.

1. Keep opening several doors in the same area to confuse your opponent. Eventually the opponent most likely loses track and can't say for sure where you are. This tactic is best used in the map V2 around CR (as it has many doors and many options to go outside and shoot). You can open 2 doors and quickly go in to the one you opened first or stick to the last door (depending on what your opponent thinks you would do).
2. In CR you can hold the door to Pre-CR open, while planting the bomb at the same time, as soon as the bomb is planted an opponent might believe the CR door is closed and rush in, in the meantime you are setup for a shot at him.



3. Act like you are opening a door, closing it and opening it again as if you were clipping in the opening, yet quickly move around to get the best of your opponent who will aim for the clipping spot.
4. If you know the position of an opponent, and know he is probably waiting for you, instead of silent walking, just run normally with as much sound as you can make. Your opponent will think you have no clue that they are there and that they can get an easy kill. In fact at the last moment of you walking in his aim, you quickly walk backwards at the moment of his shot, making him miss and giving you the chance to fire back. You can also pre-fire the spot he is in; his reaction time will be slower because he thinks you don't know his position to begin with.
5. Act like you're dropping a weapon to pick up another one or reload a bullet and quickly stop the reload. This will make your opponent come out because he thinks he has the upper hand. If you pick up your own weapon again, you will have a full clip of bullets, the same counts for if you stop reloading quickly.
6. If you have a grenade in the game, act like you're switching to a grenade and quickly switch back to your main weapon. The act of switching to a grenade makes a distinctive sound and might get your opponent to quickly move in because he thinks you're unarmed as long as you hold that grenade.
7. With the sniper, if you happen to have a bad aim or just an unlucky day and you're aim isn't steady, confuse your opponent in the following way: Shoot your opponent 4 times and reload, shoot him again 4 or 3 times and reload that amount of bullets. However you do it, make sure to ALWAYS leave 1 bullet in your clip that you do NOT fire. Eventually your opponent will count your fires and reloads and assume you have no bullets left, he will position himself in a fragile position (either rushing towards you or standing still and aiming) in which case you can use the bullet you've never used. Basically giving your opponent the idea that you have fewer bullets than you actually have.
8. Leaving HP and weapons on the ground can be used as bait; you will hear when someone walks over it and thus know their position. They can also use it against you and wait for you to show up after walking on the HP and/or weapon.
9. With the axis sniper you can shoot fast enough to shoot twice at your opponent before they can shoot back. Use 1 bullet as a decoy (purposely miss) and let him come out, quickly shoot him again when he comes out. People are generally too slow to counteract.
10. If you have a rush spawn, rush as fast as you can to the opponents spawn. With some luck you can even open doors around their spawn and they will assume it's a teammate, thus you'll be able to get them from behind.
11. Use a taunt to basically show people your location and just wait for them to walk in your aim (make sure you are setup well and can't get shot from behind).
12. Make sound at a certain spot (e.g. shoot your weapon or kill an opponent in the process) then run as quick as possible to a totally different area (possible behind the opponent), making them think you are still in the first spot (they will carefully go towards it) and shoot them in their backs. Or at least get them to move slower and buy some time.
13. When you're with a teammate; make 1 do all of the running, jumping etc. (making all the noise). While you silent walk behind him. An opponent might think there is only 1 player and will drop his guard for a 2nd one, thus getting the upper-hand on your opponent (even if you have to possibly sacrifice a teammate).
14. When followed by opponents, act like you're running away, while finding a good spot to setup your aim and shoot the ones following you (e.g. in a doorway, while the opponent thinks you opened it to run away). Good advice for the opponent as well; don't blindly run after people (even when you think they didn't see you). They can easily trap you.
15. Take opponent's weapon, when shooting, they might assume you are one of their own.

There are a lot more spots and tactics to be used with sound, these are a few examples and hopefully it will help someone.



3.2 Vision (Eyes)

Obviously you need eyes to see and play the game. But you have to have an eye for detail, or train your eyes to see the small details. A good memory will also come in handy; because you have to remember the things you've seen and process that information for strategies and tactics.

3.2.1 Force Models

Force models can help you out by making skins brighter, though you will not be able to see the difference between several people that might be at the same location/spot.

For further information see [5.4](#).

3.2.2 Compass

Keeping an eye on your compass is very important. You will be able to see the closest ally towards you. If an ally dies and your compass switches directions you know straight away who died and where they died, thus you can come up with appropriate strategies to counteract the opponents.

You can also spot an opponent, but instead of shooting him, follow him closely, he might lead you to more opponents! This also blinds the sound and compass of other opponents, because they assume it's one (or more) of their allies that are approaching them. Little do they know, they are being closely stalked by an enemy.

For further information see [5.3](#).

3.2.3 Health Packs, Weapons & Dead Bodies

When you come across a health pack or weapon on the ground it means someone died there. Obviously weapons can be dropped on purpose, but health packs can't. So when you discover a health pack (with a weapon), figure out if it was an ally or opponent (you can mostly figure this out by looking at the weapon, location, messages, way the round has been going so far and possible ally's or opponents nearby). If you think it is the health pack of an ally, figure out where they could have been killed from. It is sometimes likely that a person remains camping on the same spot, and if you can figure out that spot you could pre-fire them or at least have some better idea of what to do.

Health packs and weapons disappear within 30 seconds, so be aware that the killer is likely to still be close. If the health pack is missing but not the weapon, it's possible that the killer was (and most likely still is) wounded. Bodies disappear within 15 seconds, if you see a body, the killer is very near.

For further information on health packs see [5.2](#).

3.2.4 Anything out of the Ordinary

Make sure to look for anything out of the ordinary. Sometimes it happens that from a long distance you see a little pixel that should not be in a certain spot, this could easily be the helmet of an opponent, so shoot it! The more you play, the more you get experienced and recognize when things are out of the ordinary. Some more obvious changes in maps are when windows are broken, barrels shot/destroyed, bullet holes in objects, wooden planks broken etc. These are all actions caused by people and will give you an idea of where people are or were, and most likely what they were trying to accomplish with their actions.

3.2.5 Walls/Rooftops/Bug Spots

Instead of only looking at the ordinary spots, make sure you keep an eye out for any not so ordinary spots. People tend to go on top of walls, buildings or on bug spots to get an advantage over people. Some of these spots can only be reached with 2 people, so you are less likely to pay attention to those spots. In CB wars it is not allowed to go to a place where you can't get by yourself and you are not allowed to go under the ground so that helps lessen the spots you have to check. It could be you are unaware of the (bug)spot your opponent is in, so when you get shot, listen to where the shot came from and check out that direction carefully next time to find out where the opponent was.



3.2.6 Keep Track of Opponents

When you see one or more opponents and for some reason you decide to go somewhere else first, keep a mental track on your opponents. You've seen them at a location and thus roughly (or exactly) know where they're going. By keeping track of that information you'll be able to go to other places safely and perhaps kill other players first. As soon as you kill one of their teammates, they might look for you, but you will know exactly where they are coming from and they don't know you know. You will now be in an advantage and can surprise the opponent.

3.2.7 Name of Player Shooting at You

When you get shot, the name of the player that shot you will appear in the left bottom of your screen. This will be useful information to communicate with your teammates about which player is located where. If you and/or your teammates know how that specific person plays, you will gain a slight advantage.

3.2.8 Look at Death Messages

Keep track of everything that happens on your screen, like death messages. If you know where your teammates are and you see them die, you roughly will know where your opponents are as well. If you click on TAB you will also be able to see who is still left alive and how many players. This could contain important information to use for your tactics.



4. Tactics

The point of this chapter was to explain and show many different tactics across all maps. This has been changed as there are maybe a thousand of (slightly) different tactics in all the maps and too many spots and situations to handle in this guide.

In this guide a lot of tips and ideas for tactics have been given already in the various chapters. It is the goal for these tips to design your own tactics, and hopefully you'll also gain experience by playing a lot and learning from your mistakes.

In this chapter a few general tips / tactics will be given that could not find their place in any other chapter.

4.1 Camping

Camping is a general issue/tactic in most, if not all, FPS games. It means you are remaining in 1 spot for a very long time (perhaps the entire game). In public games it is often not allowed, some servers even use special mods to combat camping (you'll burn when you stand still too long). However in wars/matches it is one of the most used tactics as you don't want to let your team down and thus play it safe. Some camping tips are as follows:

- ❖ **Do NOT camp in public servers**, unless you are highly outnumbered (e.g. 6 vs. 1). Players and admins tend not to like camping, especially not if you do it the entire game.
- ❖ Camp in **spots where you have an easy view and shot** of any upcoming opponent, while the opponent does not have an easy view or shot on you. (Experience will teach you which spots these are.)
- ❖ Make sure **teammates have your back**, and you have their back. When you're camping as a team, make sure there are no gaps where any enemy could go through unspotted and get behind you and/or your team.
- ❖ When aiming at a specific area, make sure there is **no other area in your view where the opponents can come from**. If you are uncertain, aim at the first area in your view, this way any opponent coming from different places will not spot you (even though you won't spot them either).
- ❖ **Having an escape route planned** (or several) is useful for when you get drawn out of your camping location (e.g. you're out of bullets, you get naded or too many opponents are approaching).
- ❖ If you know there are 2 or more routes an opponent can come from, and you are left alone, be aware that as soon as one of the opponents knows your location, they will try **and come at you from a different route**. Thus make sure you aim for those routes as well. This way you will surprise them, instead of them surprising you.
- ❖ In objective mode, make sure someone is aiming at or near the bomb. However this is more **'defending' the bomb** than actual 'camping'.
- ❖ If you are under heavy fire, try **moving back a little** and camp at a different spot and keep moving back and camping at new spots every time you kill someone or get drawn back too much. This way they will either rush you and get killed or lose time by moving slowly.
- ❖ Try and find the best camping spot where **people can NOT come behind you** or surprise you in any way.



4.2 Rushing

Rushing is the act of quickly running towards the enemies, while sometimes disregarding any other form of tactic. The term is mostly used when a player spawns and right away runs to the spawn of the opponent team. You can always rush an opponent(s) mid-game on their position as well. Rushing is more used in public matches than wars, as the chances of getting killed are high. It's basically a suicide run. A few pointers will be given below about rushing.

- ❖ Keep in mind that rushing means you will probably be **facing multiple opponents by yourself** (unless you've the luck that another teammate got a rush spawn).
- ❖ Rushing the enemies spawn without stopping might **catch them off guard**, which will be in your advantage.
- ❖ Rushing can have a **time-winning effect**. If you rush the opponent you can draw them back and make them camp around their spawn. This will win you time for teammates to get in position. Sometimes you're also able to win a round because time has run out, so whatever time you can get the opponent to waste is a plus.
- ❖ Always be on the **lookout for rushers yourself**, be careful around corners and doors when you just spawned yourself. The enemy might be closer than you assume.
- ❖ If you rush fast enough behind the enemy, then whenever an opponent hears you, they will **assume it's a teammate and not an opponent**, thus you can make all the sound you want. (As long as their team is still close to each other, otherwise you will be busted when they check their compass).
- ❖ Whenever you hear someone around you, make sure to **check your compass** to see if it's a teammate. If no teammate is near, or in that direction, someone might be rushing you so turn around!

4.3 Bait

A lovely but cruel tactic; using bait to lure your opponents out or at least draw their attention. This could either go voluntarily (e.g. in clan matches) or by basically misusing your teammates (e.g. in public matches with random teammates). A few tips about using bait and countering it will be given below.

- ❖ If you **let a team mate go in** a door/into a room/around a corner first, all enemy fire will be directed at that player. This gives you the opportunity to 1. Know the locations of most, if not all enemy players and quickly jump in afterwards to (pre-)fire the opponents down.
- ❖ If a team mate is running and thus making sounds, **be sure to follow him while sneaking** (silent walking). The enemy will assume there is only 1 player because they didn't hear a 2nd pair of footsteps.
- ❖ **Using yourself as bait** for your team mates is basically 'taking one for the team'. As you will be able to relay information about the enemies' whereabouts.
- ❖ You can also **use yourself as bait when an enemy is following you**, and you act like you don't realize it (keep on running and making sounds). Now when the player that is following you, least expects it, you'll turn around and kill him. (e.g. by going around a corner and turning around and camp your follower out.)
- ❖ You can be bait by **making lots of sounds and/or opening doors**. This will draw the attention of enemy players. When their attention is drawn to you, your teammates can move in from a different location.
- ❖ If you **know someone is using bait a lot**, you can decide to hold your fire for the first player (thus not revealing your position) and wait for the second player so you can kill the 2nd one first (and perhaps the first one as well after that).
- ❖ This might turn into a bit of **psychological warfare**, but what sometimes is seen, is that a player using bait, realizes that their opponent is aware of you being behind the bait. Thus the best course of action is to let the bait wonder around freely, in the hopes that he will spot the enemy. In this case the enemy has no choice but to shoot at the bait. This is the perfect moment for you to strike.
- ❖ **Pinged/AFK people can be used as bait** to draw people who want the free kill.



4.4 Knowing your Opponent

The best way to win a game is by knowing your opponent. Get inside of the mind of your opponent and figure out what he's thinking and doing. If you know how all of your opponents play, your chances of winning will increase big time. This all comes down to pure experience and watching every individual opponent play. In time you'll be able to figure out what every specific player is like and what their tactics are. The person that is able to think the most steps ahead will probably win (though your aim still has to be good as well!). A few things to think about:

- ❖ First thing to consider, are your opponents good players or not? If they're not very good you can basically run around the entire map and disregard most tactics. If they are (very) good, you might want to reconsider your tactics and movements.
- ❖ Play against certain people (or watch them play) and you will be able to gain knowledge about their tactics and movements. This will help when facing them again.
- ❖ Find pattern in movements. Besides specific spots and tactics, people are used to taking the same routes. If you know their route, you'll have a better chance of intercepting them.
- ❖ If an opponent seems to know how you play (because they are countering all your tactics, movements and spots) you will have to change your game-style and thus do the unpredictable. Sit in spots you never sit, walk ways you never walk etc.
- ❖ When players are used to checking all the spots where people normally sit/hide/camp, you will have to sit in a location which is normally so idiotic (somewhere right in the open) that the opponent will not even look at it or pay attention to it.
- ❖ Gaining experience playing specific people is the best way to understanding them and getting into their mind. It becomes a cat and mouse game, the winner will be the 1 that is thinking more steps ahead. If you know the opponent knows you, you will have to think about changing tactics to not walk into their traps. However they might even know you know, and will look for unorthodox places. In the end it becomes a psychological warfare.
- ❖ Some players really want to kill a specific person. If they know 2 people are coming out of a door, he will avoid shooting the first one when he really wants to kill the 2nd one. So don't blindly run after your teammate just because you didn't hear anyone shooting at him. Act with caution every step of the way. If you let your guard down, you're dead.
- ❖ To continue with the above point. If you hear your team mate shooting at someone, who isn't shooting back, DO NOT PEEK AROUND THE CORNER TO LOOK. There is a big chance that the opponent knows where you are and is aiming at your location, waiting for you to look first, before killing your team mate.
- ❖ By listening to the sounds in-game and keeping track of the locations where people died, you'll be able to figure out what your opponent is doing and where he is going, even without knowing him.
- ❖ Some people will rush around corners and doors and some people will create a diversion /feint first, by showing a body part and quickly retreating. Figure out which type of player you have in front of you and you'll know if you either have to aim a bit forward and shoot right away or be patient and not shoot before the player fully shows himself. You could also always guess when to pre-fire, when you found a pattern in your opponent's movements (when he shows only his arms/legs quickly).



4.5 Making the Level Yours

If you want to be a skilled player and use tactics to their maximum, you would have to know the maps through and through. Get familiar with every little object and detail in every map. A few tips and pointers about the usefulness will be listed below.

- ❖ To get to know the maps inside-out you will have to **play them a lot**. During public matches & wars but also try and roam around in empty servers. With the absence of opponents you'll be able to freely roam the maps and get all the objects, routes and places in your memory.
- ❖ **Try out jumping and running on objects**, see if you can use objects as stepping stones to get to a place quicker.
- ❖ **Objects could lead you to bug/trick spots**. Knowing all the bug spots and knowing how to get there will give you an advantage in **1**. Knowing all places an opponent can be in, **2**. Gives you the opportunity to go to those spots yourself (tactical purposes) and **3**. By trying to get to those spots you've gained experience in timing the moving, jumping and running on certain objects which will certainly come in handy on other spots and during regular gameplay.
- ❖ **Ask friends** if they know any spots/tricks in maps and don't forget to check **YouTube** for help.
- ❖ **Find your balance in running on thin objects**. You'll have to learn to be able to run quickly and flawlessly (without falling) on thin objects like railing, ledges, walls etc. Just practice running around on those (around each map).
- ❖ By pure **practice and experience** you'll be able to feel how long it would take for an opponent to get to a certain spot, giving you the possibility to figure out a way to intercept them. It will also teach you the best and quickest routes to get to a certain place.
- ❖ Some spots will make sure you **do not lose health** when jumping from a high altitude or make you **run silently**; figure out which spots these are.
- ❖ If you have a grenade, figure out the **best spots to throw grenades** and figure out where they will land. Ask players if they can help you with 'nade tricks' or check YouTube & Google, because there are a lot of video's and pictures out there to help you with this.
- ❖ Figure out **which sound is which**, if you hear a door open, know which door it is.

4.6 Teamwork

Playing by yourself only gets you so far. With teamwork you will be able to accomplish more things in a quicker and easier way as well. In public matches teamwork is not found in great lengths, though some basic covering and shouting out locations is found on a regular basis. In clan matches, teamwork can make the difference between winning and losing. Even if the opponent is individually better than your team, if you apply teamwork correctly you will still be able to win. See below for a list with tips.

- ❖ **Communication is the key**. Talking directly via the microphone to teammates is the best course of action (unless you're sitting in the same room (LAN)). Tell your teammates where you are, what you're doing, where opponents are, how many and which opponents you see (if you can distinguish them). Tell them where you died and where opponents are headed to.
- ❖ **Covering each other is important**. Make sure you keep an eye on each other and that there is no way that an opponent can sneak up behind you or your teammates. Don't create gaps; make sure everyone has each other's back.
- ❖ When **friendly fire** is on, make sure not only the communication is strong but that you check your compass regularly to make sure you won't shoot a team mate by accident. The compass will tell you where your closest team mate is, and thus don't freak out when you walk around the corner and your team mate is in your face.
- ❖ **Share ammo, health and possible grenades** when needed. Don't pick up each other's weapons (if someone wants to change weapons with an opponent's weapon) and if a team mate is very low on health, don't steal the health pack if you're almost full on health.
- ❖ **Sacrificing yourself** might be needed for the team. You will act as bait, and when you get shot, you will get information on the location of the opponent(s).
- ❖ If possible, **move in teams**. If you die, someone will be able to take revenge quickly. Make sure you're not in each other's line of fire when moving together though.



4.7 General Tips/Tactics

A list will be shown below with some general tips and tactics for MOHAA. This list will consist of tips that could not easily be classified in any other topic and are therefore bundled together.

- ❖ **Taking the weapon of an enemy.** You might want to do this when you prefer the weapon of the opponent and/or to confuse opponents. If you shoot with the same weapon as the opponent, they might assume it's a team mate. Make sure you are safe to grab the weapon from the ground though, because you will be unarmed for a few seconds. Hopefully team mates will be around to cover you.
- ❖ **Typing without getting killed.** When you decide to type a message in-game, you will be vulnerable to getting shot at because you'll have to stand still. Always make sure there is no one around you (this helps if you know for 100% where the opponent(s) is) and preferably stand in a spot where either **1.** No one ever comes; **2.** You're covered by at least 1 team mate; or **3.** The opponent would have to open 1 or more doors to get to you, this means you will hear them coming, giving you time to stop typing.
- ❖ **Blocking grenade with body.** You're able to bump grenades off of your body. This can be useful if someone wants to throw a grenade through a window, hole in the wall or any gap. If you stand in front of it, you'll be able to bounce the grenade back down away from your location.
- ❖ **Spin circles around your opponent.** A lot of players are unable to move their mouse fast enough to turn. If you run around your opponent while shooting, they will have trouble with getting their aim on you (or even seeing you in the first place). This gives a perfect opportunity to shoot the opponent in the back.
- ❖ **Killing lagers/high pingers.** People that are lagging are moving through the map in a way that almost looks like they're teleporting. It's difficult to get an aim on someone who keeps 'stuttering' away from your aim. To kill these players, **1.** Try aiming a little bit in front of them and wait till they get in your aim, then pull the trigger right away. Or simply shoot a little bit in front of them right away. **2.** Walk in front or behind them, if they're running a straight path you will hit them no matter how much they lag. **3.** Wait until they finally stand still before you shoot.
- ❖ **Kill players who are standing still first.** When you're fighting opponents, and one or more of them are standing still and trying to aim at you, kill these opponents first. Because they are standing still, they are the perfect target, you simply can't miss them. Also they might be the biggest threat as they can concentrate on their aim. Plus when you are fighting with an opponent at close range, you can use that opponent as a shield to deflect the bullets of their team mates. When that opponent dies, you'll be left by yourself in the open with one or more aims on you.
- ❖ **Making people fear you.** Keep putting pressure on the opponents, keep rushing them, keep shooting them and keep killing them. If you don't give your opponent a time to breathe they will start to fear you every time they see you. As soon as you get close they will panic and their movements and aim will become sloppy. Putting fear into people will also help with pushing the opponents back, and letting them make mistakes.
- ❖ **See bullet spots.** A great help in the game is the option to see bullet spots. With this you can see where your opponent is/was shooting at and where your aim is set to. It also helps during target practice if you want to shoot at an object while running, leaning etc. To turn this on, go to the [in-game menu](#) -> [Options](#) -> [Video](#) -> tick/check [Wall Decals](#) box on. Or add `seta cg_marks_add "1"` to your `unnamedsoldier.cfg` to get the same result.
- ❖ **Grenade chain reaction.** Grenades are able to cause chain reactions between them. If they are close enough to each other, the first one will make the second one explode as well (even though it's been thrown later). This causes an explosion radius larger than a usual grenade. Be careful with throwing grenades in spots where a grenade is already thrown, you might get blown up by your own grenade because of this quick chain reaction.



- ❖ **Use feints to trick opponents.** When using feints (quickly peeking around a corner to make someone shoot at you), people are inclined to shoot at you out of reflex, in doing so, they will reveal their location and which weapon they are using. Even if they manage to hit you (when only seeing you for a split second), chances are it'll only be your arms or feet and thus it will not be a deadly shot. You can use this tactic to find out enemy locations, if there is enemy at all, to waste the enemy's bullets and to find an opening to shoot back.
- ❖ **Pay close attention to (re)spawns.** In respawn game modes (TDM, FFA, FT and CTF) make sure you remember all the locations where an enemy might (re)spawn and keep an eye on them whenever you can, especially when moving through spawn locations. This way, you'll be able to out-shoot any opponent who might spawn behind you or next to you. Always be on your guard around spawn locations. Also be aware that spawns could switch and the enemies will suddenly start spawning on the locations your team originally spawned.



5. In-game Extras

5.1 TAB (Score Screen)

It's a pain to keep track of everyone that is being killed, though it can deliver very useful information. So make sure you once in a while check the score screen to check who is still alive and who is dead. When knowing your opponents and team mates, you will be able to make a probable guess of their locations and act on that (the more deaths, the less locations & walking paths you have to worry about, assuming you really do know your opponent). It is also useful to know if the players that are alive are newbie's, medium or pro.

Example Usage #1: You check your score screen, there is only 1 player left, most of your team is still alive, you can now walk more freely, and every kill you see (and hopefully hear) is at the location of the last opponent.

Example Usage #2: You check your score screen, you are the only 1 left, this means that EVERYTHING you hear is an enemy, and you have to be extra careful, especially if there are still a lot of enemies.

Example Usage #3: You check your score screen, there are a few opponents left, yet exactly the ones that do not pose a threat (newbies), you can now move more freely as well.

Example Usage #4: Check the ping of the players, when a player has a high(er) ping, his reaction time will decrease, this can be a confidence boost into rushing your opponent. If a player has a (very) low ping, be more careful as his reaction time will increase, and might be better than yours.

Example Usage #5: You check your score screen, and a player has a ping of 999, this means the player is 'pinged' (most likely crashed). This player will probably be at a spawn point, not moving and perhaps floating in air. Though be careful when more opponents are left, they might even be waiting for you to come to spawn, and use the pinged player as bait.

Example Usage #6: You check your score screen and you notice that players you know are either playing better or worse than normal. This could give you an indication of their state of mind (they might be more relaxed or really frustrated). You can use this to your advantage to predict their movements and possibly break their rhythm and/or frustrate them (more).

You decide the usefulness of the information it gives you.

Name	Kills	Total	Time	Ping
Axis	2	5		44
Shadow	6	29	3:24	25
BERRYPICKER	0	12	3:24	48
W00p - BadMr.Death	0	6	3:24	23
[[Snip "Dog]].. Jolien	0	3	3:24	91
tebze	0	2	3:24	100
W00- te@Bv@murf	0	0	3:24	12
sniper dog	0	0	3:24	10
Allies	0	2		55
Long	0	14	3:24	19
-k2. ^khan	1	10	3:24	98
Wj / Break-Miller(PL)	2	8	3:24	48
qdlia	1	5	3:24	40
Deu7230^ (Fr)	1	4	3:24	73
KoguGallZa	0	3	3:24	78
W00j: \$teal	1	1	3:24	25
ASD44	0	1	3:24	87
Sgt. Pepper	0	0	1:36	31

Example: Being alone with only 2 opponents left.

Both have higher pings, the 1 with the most kills has the highest ping.

As I am at V2 area I am confident I will be able to defend my position and take the win.



5.2 HP (Health Points)

As everyone knows, your health meter will be at 100 from spawn point. If you jump from too high objects or get hit by a bullet, you will lose health (some mods will also make you lose health, if you camp too long; for instance your health drops by e.g. 10 per every extra second you camp).

Now the trick is to keep 100 HP all the time, cause the most deadly hit will render your HP to 4, which means you need at least 96 HP to survive all hits (of course people can still kill you with 1 shot in the head, neck & partially the upper-torso), though if you have fallen once from a too high object your HP can be down from around 5 till 15 HP, which means you have a max. HP of 95; which already makes you more vulnerable. If you jump, make sure you jump in places where you will not lose health, otherwise walk a bit extra or use a ladder if possible to get where you want to be.



If it is absolutely needed to lose health in a jump (while running from an enemy for example) then do so. Jumping off a ladder and grabbing onto it again before you reach the ground will not only guarantee your health not to drop but you will also avoid losing (much) time to get where you want. You WILL still lose health (or die) when you drop (from a high point) on a health pack.

If you lose health by a jump or an hit from an enemy, collect HP packs to get your HP up again, 1 HP pack will give you 50 extra HP (max. 100), which means you only need a max. of 2 HP packs to be fully healthy again. So when you kill an enemy, make sure you grab the health (HP pack) (though of course be careful with enemies around, make sure you're safe enough to grab the health, if not, then do not concentrate on the health but on your opponent). Also when someone else has been killed (ally or enemy), listen to the sound of their death and weapon drop to locate their body (with HP pack), if you hear someone else already getting the HP pack, then don't bother.



When you have 100 HP and walk by a HP pack, you of course are unable to get it, though if you later on lose health (by a shot or jump), try running back and grabbing the health pack where you just walked by (the health pack WILL vanish within 30 seconds).

For example, in a full server (20+ players or so) you can get hit like 4 times while staying alive, just because you keep grabbing the HP packs of dead players.

With 100 HP you will be able to rush your opponents with more confidence (try feinting; only showing your legs and arms around corners to make your opponent shoot while you are unable to die from 1 shot at that point), cause chances are high that they will only hit you in their first shot, which leaves you a window of a second or 2 to shoot your opponent.

Do not be afraid to get shot with 100 HP, the chances are in your favour!



It is possible however that a player is left with 1 HP after 2 hits, It rarely happens, but that person will probably be hit in the toes or fingers 2 times. There is little you can do about this, just aim better.

NOTE: This picture is only for Sniper Rifles, Realism.

The general idea however is still the same for all weapons, the damage locations are decreasing in the same way, just different values. Also no matter what weapon/mod, always try to stay on 100 HP.



5.2.1 Bullet Damage

As shown (in the picture) on the previous page, the damage of a bullet depends on the body part (hitbox) it has hit. Only the results of the Sniper Rifles (Realism) were shown, though this obviously varies for other weapons. The general idea is the same, vital spots do more damage than less vital body parts.

Now below you can see 2 tables (Default & Realism) that will show you the bullet damage per weapon, per body part (hitbox). This is for ALL weapons & body parts.

DEFAULT

		Head/ Neck	Upper Torso	Middle Torso	Lower Torso	Pelvis	Upper Arms	Upper Legs	Lower Arms	Lower Legs	Hands	Feet
Location Multiplier ->		2,00	1,00	0,95	0,90	0,85	0,80	0,80	0,60	0,60	0,50	0,50
Weapon	Bullet Damage											
BAR	30	60,00	30,00	28,50	27,00	25,50	24,00	24,00	18,00	18,00	15,00	15,00
Colt45	30	60,00	30,00	28,50	27,00	25,50	24,00	24,00	18,00	18,00	15,00	15,00
Kar98	90	180,00	90,00	85,50	81,00	76,50	72,00	72,00	54,00	54,00	45,00	45,00
Kar98Sniper	100	200,00	100,00	95,00	90,00	85,00	80,00	80,00	60,00	60,00	50,00	50,00
M1 garand	48	96,00	48,00	45,60	43,20	40,80	38,40	38,40	28,80	28,80	24,00	24,00
MP40	25	50,00	25,00	23,75	22,50	21,25	20,00	20,00	15,00	15,00	12,50	12,50
MP44	27	54,00	27,00	25,65	24,30	22,95	21,60	21,60	16,20	16,20	13,50	13,50
P38	35	70,00	35,00	33,25	31,50	29,75	28,00	28,00	21,00	21,00	17,50	17,50
Shotgun	17	34,00	17,00	16,15	15,30	14,45	13,60	13,60	10,20	10,20	8,50	8,50
Springfield	106	212,00	106,00	100,70	95,40	90,10	84,80	84,80	63,60	63,60	53,00	53,00
Thompson	25	50,00	25,00	23,75	22,50	21,25	20,00	20,00	15,00	15,00	12,50	12,50

REALISM

		Head/ Neck	Upper Torso	Middle Torso	Lower Torso	Pelvis	Upper Arms	Upper Legs	Lower Arms	Lower Legs	Hands	Feet
Location Multiplier ->		2,00	1,00	0,95	0,90	0,85	0,80	0,80	0,60	0,60	0,50	0,50
Weapon	Bullet Damage											
BAR	104	208,00	104,00	98,80	93,60	88,40	83,20	83,20	62,40	62,40	52,00	52,00
Colt45	75	150,00	75,00	71,25	67,50	63,75	60,00	60,00	45,00	45,00	37,50	37,50
Kar98	106	212,00	106,00	100,70	95,40	90,10	84,80	84,80	63,60	63,60	53,00	53,00
Kar98Sniper	106	212,00	106,00	100,70	95,40	90,10	84,80	84,80	63,60	63,60	53,00	53,00
M1 garand	104	208,00	104,00	98,80	93,60	88,40	83,20	83,20	62,40	62,40	52,00	52,00
MP40	60	120,00	60,00	57,00	54,00	51,00	48,00	48,00	36,00	36,00	30,00	30,00
MP44	80	160,00	80,00	76,00	72,00	68,00	64,00	64,00	48,00	48,00	40,00	40,00
P38	60	120,00	60,00	57,00	54,00	51,00	48,00	48,00	36,00	36,00	30,00	30,00
Shotgun	15	30,00	15,00	14,25	13,50	12,75	12,00	12,00	9,00	9,00	7,50	7,50
Springfield	106	212,00	106,00	100,70	95,40	90,10	84,80	84,80	63,60	63,60	53,00	53,00
Thompson	75	150,00	75,00	71,25	67,50	63,75	60,00	60,00	45,00	45,00	37,50	37,50

The **red** numbers (bullet damage) x **green** numbers (body part multiplier) = amount of damage per body part. **Example:** In realism, the **Thompson** has **75** bullet damage and the **upper arms** have a location multiplier of **0,80**. So **75x0,80 = 60** damage per bullet in the **upper arms**. So the opponent loses **60 HP** every time he gets hit by a **Thompson** in the **upper arm**.



5.2.2 Means of Death

The game has a large variety of different means of death (ways to die). All these different ways to die have a corresponding number, which can be used by modders or scripters for whatever purpose.

Means of death, as the name suggests, tell the event how the player died. Can be useful to scripters who wish to determine what killed a player, be it falling from a great height, bullet, grenade or even suicide. This is again used by mods such as Elgbot to identify how the player was killed.

Credits: Purple Elephant1au

The table below will list these means of death with their corresponding reference number in case anyone finds it useful.

Reference Number	Means of Death
0	None
1	Suicide
2	Crush
3	crush_every_frame
4	Telefrag
5	Lava
6	Slime
7	Falling
8	last_self_inflicted
9	Explosion
10	Explodewall
11	Electric
12	Electricwater
13	Thrownobject
14	Grenade
15	Beam
16	Rocket
17	Impact
18	Bullet
19	fast_bullet
20	Vehicle
21	Fire
22	Flashbang
23	on_fire
24	Gib
25	Impale
26	Bash
27	Shotgun

NOTE Not all Means of Death are working in MOHAA (e.g. Gib).



5.3 Compass

The compass can be a great ally in many situations. There are a lot of people who do not care about the compass, because you can "only" see your team on it, while you need to find your opponent. This is of course true, but also very wrong. By using it you can actually locate your opponents as well. The compass also shows directions ([North](#), [East](#), [South](#) & [West](#)), which can help when relaying the opponent's location to your team (by shouting out a direction).

Example Usage #1: On V2 (obj_team2) you are running from D2 towards Main Stairs, now your ally is running from Main Stairs towards D2, so you will bump into each other, when looking on the compass you can see your ally coming your way, so you will not accidentally shoot your ally out of reflex or shock. (A shot can alarm an enemy as well, and give away you and your ally's location).



Example Usage #2: You're in front of a hall way, where you can either go left or right, now of course it's possible that an opponent is already waiting for you, so you want to check both sides of the hall way, now your compass shows that an ally is very close and at the left side of the hall way, you can now easily check (perhaps clip or self-spec) the right side of the hall way without being afraid of getting shot in the back.

Example Usage #3: You're in Truck Room, moving towards Main Stairs and actually running up the Main Stairs. Now it is possible that an opponent has already managed to pass Vent Room and is waiting at the top of Main Stairs. You can easily check your compass to see if anyone is Vent Room or perhaps even close somewhere, so that you can wait till your ally passes (as bait), and of course if there is an enemy, he will be shot.

Example Usage #4: There is 1 opponent left, yet you are unable to find him, though for some reason your ally is remaining on the same spot, and just moving around there a bit, this can be an indication that he is fighting the last opponent, it depends on how certain you are, but you could rush to his location, or slowly move towards it and still checking everything.

Example Usage #5: The arrow of the compass points up, and does not move, it looks like an ally should be in front of you, yet isn't, this means you are the only 1 left alive of your team.



Example Usage #6: The arrow is pointing towards a target which is not moving, now that person is either camping or AFK, if you can guess his location to be a spawn point then you can be sure that this person will not be of any help to you. You could give away his position towards enemies and perhaps wait for them to kill the AFK person, but it's unlikely that they won't figure out it's a trap.

Example Usage #7: When you're following an ally by using your compass, and your ally suddenly gets killed, you will be able to pinpoint the area of where the opponent is.

Example Usage #8: When you get hit, a red glow will appear on your compass from the direction you got shot at. This glow fades away quickly, so although it can be useful, you most likely already saw or heard the player's position and did not even have time to check the compass.



Now the compass also has **2 disadvantages**, it will only show the closest ally, so sometimes you simply cannot know where other allies are until you move further away from the ally that was on your compass in the first place (chances are that you have already heard or spotted your other team mates though). A deadly disadvantage of the compass can also be that your ally is actually very close to an enemy as well, which would make you believe that an enemy cannot be there (and you might get shot in the back), yet in combination with sound, time, your eyes and other factors, chances are a surprise like this will (almost) never happen.



5.4 Force Models

Is it wise to use Force Models? In my opinion this should not be used, I have never used it and never will. I have 2 reasons for this, 1. In a real war I can't pick my opponent's outfit either and my 2nd reason will follow below.

The reason people use force models in the first place is so that they can pick a skin for their enemy which is the most easy to spot (think about the Axis Winter skin, which is large and totally white). Especially a white helmet can come in handy in the sniper community.

Force models is also used by cheaters a lot, to give the opponent the same skin, which they'll be able to see through walls, this is why some servers disable client-side force models.

Though there is also a huge disadvantage in using force models. This is where we come to my 2nd reason for not using it. Every opponent will have the same skin, so when you are shooting at a spot and you keep seeing a white skin move, you can never be sure if it is still the same player or that there are several other players.

Without force models you can recognize your opponent and most of the times there are a lot of different skins being used, so you can more easily see how many opponents there are. Also when you know your opponent, you know their skins and their movements, when seeing their skin you are much safer to adapt to their movements.

In many situations you might think there is just 1 opponent, while there are perhaps even 3, don't make that mistake. (Even without force models people can still have the same skin, you will notice this after a round or 2, so do not count on the thought that everyone has a different skin, listen carefully as well if you perhaps hear more players.)

And let's be honest, a white skin shouldn't matter, if you want to be good, you will also have to notice players (skins) that are not white. Know the map and when you see something (even a little dot) that does not belong there, shoot it.

To really confuse your opponent, you can always change your skin every round



*Example: The most used Force Model skins
Bright skins (& bright helmet for axis).*



5.5 Objects / Materials

This might be an unnecessary topic but I would like to point out again the importance of objects in the game. (With objects are meant: boxes, rocks, windows, metal bars, metal railing etc.)

- Objects will block bullets, so it's a great cover to maneuver behind.
- Objects can camouflage you or hide your appearance completely.
- Objects can be a stepping stone to (faster) achieve other places/spots.
- Certain objects (metal railing) can make you run faster & silently.
- Certain objects make different sounds when shot at or walked upon (metal, stone, windows, grass, earth, boxes etc.).
- You can shoot through certain objects like the Rocket in V2, some rocks & trees etc.
- In Freeze-Tag you can melt people through objects (doors, walls etc.).

5.6 Time



You might ask yourself 'Why Time?'. Well time is an important factor in the game. In objective gameplay you only have 5 minutes per round. It is important to keep track of time as you don't want to automatically lose the game when the time is up.

Time gets extended when bombs are planted just before the time runs out. The game will then finish when the bomb has exploded or has been defused.

If you look in the next chapter it will show you the time length of a bomb and the time you need to plant/defuse it. It will also come in handy if you figure out how many seconds you need to go to certain places. If you hear an opponent somewhere you can estimate the time he needs to travel to a certain point. In this period of time you'll be able to set yourself up in a good spot for interception without having to worry that he's already there.

By keeping an eye on the time you'll be able to decide whether or not you'll have to distract the opponent. When the opponent needs to plant the bomb with little time left you can try to keep them busy just by randomly shooting at them (you don't even need to try to hit) just so that they'll be more careful and will take them longer to get past you.

When you need to plant the bomb yourself, make sure you try to avoid any distraction and just run as fast as you can towards the bomb (if you have little time left). If a teammate is still alive, make sure they cover your ass. You can also win by killing all the opponents of course. But with little time left and an opponent not showing himself you either have to plant the bomb quickly or act like you're going to plant the bomb to make the opponent shoot and give away his position and quickly shoot back. (This means you have to avoid standing/sitting still at the bomb, but keep moving.)

During a sniper only duel it's always needed to shout out a time where both players will pick up their sniper and start shooting each other. Make sure you grab your gun as soon as the timer reaches the announced time, if you're too late you might die.

In Freeze-Tag mode the melting stops when the time goes below 1 minute. Thus make sure you melt every player you can before the timer reaches 1:00. Also try and kill players just before the timer reaches 1:00 so they will not get melted anymore. The time you need to melt a player goes quicker if you are standing inside his melted body in comparison with using the laser-beam. Though server admins can change the melting time in FT, thus an accurate time cannot be given. Test it out for yourself in the beginning of a FT game.

In CTF mode the respawning will stop at 1:00 as well, when the teams are tied. Last team standing or first team to capture a flag will win the game.



5.7 Bombs

In objective based maps there are bombs that have to be placed by a team in order to win the game. (To plant and defuse a bomb, hold the [USE](#) key (E).) You might wonder why I'm placing something about bombs in here, as you just plant them and they either get defused or blow up right? Well true, but there is a little more behind it. Experienced players already know by listening at which second a bomb will go off, though for the people that are not using sound or just want to look at it in a different way, I've compiled a short list with some info about the bombs.

The following stats are the default stats, and although they could be changed, I've never seen a server where they have been changed. Note that any location including the '[libmef](#)' folder is found in [Mefy's Gametypes](#) mod and not in the original Pak.pk3s.

Bombs & Explosives Info			
<u>Setting</u>	<u>Location</u>	<u>Description</u>	<u>Value</u>
level.bomb_set_time	global\libmef\bomb.scr	Time needed to set bomb	5 s
level.bomb_defuse_time	global\libmef\bomb.scr	Time needed to defuse bomb	6 s
level.bomb_tick_time	global\libmef\bomb.scr	Time till bomb explodes	45 s
local.bomb.bomb_tick_time	global\libmef\bomb.scr	Time the beeping of bomb lasts	10 s
wait 8	maps\obj\obj_team3.scr	Time till Omaha charges on the beach blow up	8 s
Dmlife	models\projectiles\M2FGrenade_base.txt models\projectiles\steilhandgranate_base.txt	Time it takes for a grenade to blow up	3 s
wait (randomfloat .5 + .5)	global\minefield.scr	Time it takes for a mine to blow up	0.5 – 1.0 s
level.bomb_explosion_radius	maps\obj\map.scr	The radius around the bomb in which you can die by the bomb.	Varies
level.bomb_damage	maps\obj\map.scr	The damage a bomb outputs when blown up.	Varies

This concludes that as soon as a bomb starts to beep, you have 4 seconds left to start disarming, otherwise you're already too late and don't even need to bother.

The explosion radius differs sometimes, but I suggest you just move away from a bomb that's about to go off. In V2 you should not be placed near the CR door, the explosion could still kill you through the door.

Bombs could also have some uses. The bomb on the Flak88 on The Hunt is a good defense as it blocks bullets. You can also go up on the Flak88, and when it has been spawned closest to the wall, you can use it to look over the wall and see/kill the upcoming enemies. On Omaha Beach it is also possible to climb upon the cannons, these are solid (good defense) as well. On V2 it is possible to shoot through the V2 rocket, as it is not solid. You can also use the CR table to stand on and have a better view outside or use it for inside combat (defense).

Bombs can also be used to fool a person, which is more commonly used in V2 and especially on Freeze-Tag. You plant the bomb so that people go for it. In the mean time you've sneaked away and either get behind them, or try to melt your team (in Freeze-Tag).

When all players are dead and all that is left to do is to defuse the bomb, but you're not that close to it? Drop or holster your weapons so that you will run faster to the bomb. (Note that on some servers this won't have any effect as the run speed remains the same, holstered or not.)



5.8 Doors

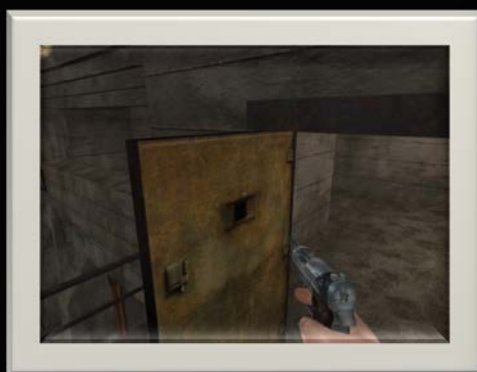
A few of the maps have some doors that can open and close with the **USE** button (**E**). These doors can be used in tactics as well. The time that a door is open varies per door but is always between **1.9 and 4.5 seconds** (assuming no one is keeping the door open and thus no interruptions).

5.8.1 Holding a Door Open with a Gun

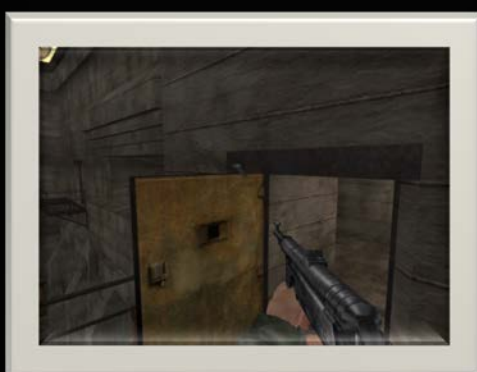
You can hold a door open with any gun. Now this guide is for sniper only, but occasionally you'll come across servers where you have an extra pistol next to your sniper, or even servers that give you a new sniper if you drop your own sniper. Thus I will type something about it.

You can hold doors open by dropping your weapon (pistol is the easiest method) above the door when it's open. The door will remain open (but will start making the sound like it wants to close, repeatedly), until the gun disappears. Under normal circumstances the gun should disappear in 30 seconds, thus that's how long you could hold the door open.

This tactic can come in use in many ways, as people might think someone is holding the door open while you move around them (where the door is being used as a decoy). You could use it so that you can check outside the door anytime without the hassle of opening it each time. And you can always act like using it as a decoy, but go out of the door anyways to surprise a 'smart' opponent.



*Standing on rail,
to throw pistol*



Pistol thrown on door



Pistol on door



Pistol still on door



5.8.2 Doorblocking

A very annoying and helpful trick in MOHAA is blocking doors. If you sit behind a closed door, any person trying to get through won't be able to. Although it's not as easy as it seems. In All Weapons you can use the pistol to bash through the door, this will either kill your opponent or make him move away from the door (thus you can open the door).

In Sniper Only however, you do not have the luxury of using a pistol to bash through doors. But if the doorblocker doesn't maintain his position correctly, his body parts will appear through the door (this can be either feet, legs, arms or any other small body part). If you shoot at this part, the person behind the door WILL get hit or even killed.

If you are the person trying to open the door, you need to keep pressing the 'USE' (mostly 'E' on the keyboard) button continuously. The door won't open but it will move a bit, which will make the doorblocker move a bit. If you keep pressing it, there is a chance he can't maintain his position anymore and you will see a body part through the door. So while pressing the 'USE' button, keep aiming at the bottom part of the door, as that is where any body part will appear.

If you are the doorblocker, try and maintain the following position, shown in the screenshot below:



If someone tries to open the door, keep yourself in this position. If the door tries to make you move to the right, move a bit to the left to counteract the effect of the door, maintain your position and not show any body parts.

You can always use tactics with the doors as well. Just blocking the door for 1 second (or more) to make your opponent aim for the bottom of the door, suddenly you move away, which opens the door and the opponent might not have enough time to correct his aim.

I must note that this trick is very annoying as well, most servers won't allow it and an admin can easily give you a warning or kick you for it.



5.8.3 Opening/Closing Doors

The opening and closing of doors can do wonders for your tactics and defense. Below a list with a few pointers are given, to give you an idea of how you can utilize doors to your advantage.

- You can open a door without actually going through it, any opponent who might have heard it will come and follow you through the door. This gives you the opportunity to quickly kill them from behind.
- You can open different doors to confuse your opponent, making them unsure of what you're actually doing or where you're actually going.
- You can open a door without going through it, or without peeking to draw enemy fire towards you. Sometimes people will fire instantly at opened doors. This will reveal their location and you might be able to fire back once they need to reload.
- When going through a door it is mostly important to close it directly behind you (quickly turn around, press your **USE** button (**E**) and quickly turn back again). This will protect you from any grenade that someone might have thrown towards you (with the goal of it getting through the door). It will also cover your back from any opponent that otherwise would have sneakily followed you through the door. With the door closed the opponent will have to open it first, thus making a sound and revealing their position.
- Quickly closing the doors behind you will make sure you're able to lose any person that's following you.
- Closing the door quickly will also obviously help you defend against any incoming bullets, grenades or missiles.
- You're also able to clip behind open doors and close them quickly when someone is throwing a grenade or when you need to get out of that position due to high enemy presence.
- The above tips will also help you when you're the one that is following someone through a door. Watch out for traps (people opening a door on purpose for you to follow), throw grenades in open doors and try to sneak up on people via doors they had opened (close the door after you've snuck in, otherwise they might realize the door is staying open for too long).

5.8.4 Door Closing Times

You might have noticed whilst playing, but some doors stay open longer than others (without anyone obstructing it). Not only does it differ per map, but in some maps, not all doors in that specific map have an equal opening time either. Below you'll see a list of all the exact times (in **seconds**) a door remains open (without obstruction) for all the default MOHAA maps.

Map Name	Map Command	Door Type	Time (s)	Information
Southern France	dm/mohdm1	Wood	1.9 3.9	All doors are 1.9s except for the door of the small room on the ground in the middle of the map (3.9s).
Destroyed Village	dm/mohdm2	-	-	Map has no doors.
Remagen	dm/mohdm3	-	-	Map has no doors.
The Crossroads	dm/mohdm4	Wood	4.1	All doors are 4.1s.
Snowy Park	dm/mohdm5	-	-	Map has no doors.
Stalingrad	dm/mohdm6	-	-	Map has no doors.
Algiers	dm/mohdm7	Wood	4.1	All doors are 4.1s.
The Hunt	obj/obj_team1	-	-	Map has no doors.
V2 Rocket Facility	obj/obj_team2	Metal	2.5 4.5	12 doors are 2.5s and 11 doors are 4.5s. More info, check table below.
Omaha Beach	obj/obj_team3	Metal	4.5	All doors are 4.5s.
The Bridge	obj/obj_team4	Wood	4.1	All doors are 4.1s.



Due to V2 having loads and loads of doors, and the closing times basically being different for 50% of the doors, here's a table specifically for all the doors in V2 and their closing times.

V2 Door Closing Times

Door Location	Time (s)	Information
Allied West Spawn	2.5	Left door from allied grass.
Allied East Spawn	2.5	Right door from allied grass.
Allied Ventroom	2.5	Allied door that leads to Ventroom.
Allied Truck (Main)	2.5	The main door in Truckroom.
Allied Long Hall	2.5	The door that opens towards Long Hall.
Tunnel	4.5	The door that leads to tunnel/vents.
D1	2.5	Top outside door (VR side).
D2	2.5	Top outside door (Truck Up side).
D3	4.5	Top outside door (next to CR).
D4 (outside)	2.5	Door below D1 (the darkroom) (outside door).
D4 (inside)	4.5	Door in darkroom leading to Ventroom.
D4 (up)	4.5	The door above the stairs of D4 (darkroom).
D5 (outside)	2.5	Middle bottom door leading to Truckroom.
D5 (inside)	2.5	Right door in Truckroom, leading outside.
D6 (outside)	2.5	Door below D3, leading to Truckroom.
D6 (inside)	2.5	Left door in Truckroom, leading outside.
FR (D2 side)	4.5	The Flagroom door which is close to D2.
FR (CR side)	4.5	The Flagroom door which is close to CR.
CR South	4.5	South door of Control Room itself.
CR North	4.5	North door of Control Room itself.
CR North Staircase Up	4.5	The top staircase door north of CR.
CR North Staircase Down	4.5	The bottom staircase door north of CR.
CR South Railing	4.5	The (top) door on the railing south of CR.

5.9 Walls

Obviously, as in most games, there are walls in MOHAA. There are a few tips/pointers that will be listed below that have to do with walls in the game.

- A lot of the walls in the game are accessible to climb on top of (either by yourself or with the help of someone else or with the help of other objects). Thanks to this, you can reach various and higher points in the maps and gain a vantage point on others. You can always climb over some walls to get to other parts of the map where the enemy won't expect you easily. (Check for opponents at these spots as well.)
- Walls are obviously excellent cover as they can hide your presence and block bullets. You can peek around corners to clip and/or normally shoot people.
- There is a hack out there that lets people shoot through walls, the Reborn (1.12) patch has this fixed, as an admin you should do the following to apply the fix:
 - o Console: `rcon sv_antistwh 1`
 - o Server.cfg: `seta sv_antistwh 1`
- You're sometimes able to see guns through walls (if people are near the wall and pointing their weapon that way), this is a great help in spotting opponents. (Sometimes you might be able to shoot at their hands, just like you can through doors).
- You can complete Single Player objectives through walls (e.g. if you need to grab a map from a wall, you can actually grab it from the other room, by pressing the **USE (E)** key against the other side of the wall).
- You can pick up items (weapons & health packs) through thin walls if they are close enough to the wall.



5.10 Call Vote

In MOHAA it's possible to vote for new maps, kicking players, restarts etc.

Most servers have this option disabled because it can be abused easily. However if the option is not disabled you would be able to kick hackers and other scum without an admin being present.

You will need the majority to vote and vote yes to actually succeed the vote.

To vote:

1. Open console and type in: `callvote *command* *value*`
 - a. Example #1: `callvote kick UnnamedSoldier`
 - b. Example #2: `callvote map obj/obj_team2`
 - c. Example #3: `callvote restart`
 - d. Example #4: `callvote kick "The Soldier"`
(Note: use quotation marks -> "like this" when there is a space in the name.)
2. Press enter
3. You and everyone open console and now type in: `vote yes` or `vote no`
4. Press enter and wait till everyone votes and the vote ends.

The new 1.12 (Reborn) patch also has a new (customizable) voting system included. Their documentation explains well how it works. The documentation is added to [Appendix 1](#) of this guide.

5.11 Spectator Mode

In-game you have a spectator mode. There are 3 different spectator modes available.

1. Forced Spectator Mode: In Objective & Round-Based games you'll go into spectator mode as soon as you die and will be unable to respawn until that round is finished. As long as you are a part of one of the two teams, you'll only be able to spectate your teammates in 3rd person. You can move view from one player to another by pressing the `Use` button (mostly 'E'). This spectator option is not available in Free for All and Team Deathmatch games as you will respawn when you've died.
2. Free Spectator Mode: Next to the forced spectator mode, you'll also have a free spectator mode. This is available in every gametype. Though you can only use it when you're NOT in a team and thus NOT spawning/playing. You'll be able to roam freely through the map using your movement keys. You'll be like a 'ghost'; you can fly and see everyone and no one can see you and you cannot interact with the game in any way. You can go into Free Spectator Mode by clicking on `Escape` (ESC) on your keyboard and then click on `Spectator Mode`. You can also decide to follow a player just like when in Forced Spectator Mode by pressing the `Use` (E) button. To return to Free Spectator Mode you simply press your `Crouch` or `Jump` button (mostly CTRL and Spacebar). You'll basically leave the player's body and fly away from that spot as a 'ghost'.
3. Freeze-Tag Spectator Mode: The final spectator mode is only available in a mod called Freeze-Tag. When you die, you're not actually dead but 'frozen' as a statue on the place you died, until someone melts you. Whilst you are frozen you can spectate all your living teammates but ALSO spectate other frozen bodies of your team. What differs from normal spectating is, is that you can actually turn the screen when you are spectating a frozen body (use your mouse to look in every direction and use your `strafe` keys (A & D) to move the camera left or right direction). This way you can actually see a lot more of your surroundings.



5.11.1 Enable Spectator Chat-to-All

Normally when a person is dead (or in spectator mode to begin with), they're unable to communicate to the players currently still alive and playing in the server. However there's a cvar you can use to enable the option of spectators chatting to living players. Meaning people still alive and playing can read the spectator chat as well.

- **Server.cfg:** seta g_spectate_allow_full_chat "1"
- **Console:** rcon g_spectate_allow_full_chat 1

5.11.2 Spectator Tips & Tricks

Some useful tips for being in spectator mode will be listed below:

- Spectators cannot communicate with players that are alive via chat. Only in Freeze-Tag it allows you to communicate via spectator chat because you're technically 'Frozen' and not dead. This can however be changed, see [5.11.1](#) for more information.
 - While following a player you'll see them in 3rd person and will be able to locate people quicker and give a heads-up to your teammate via X-Fire or Teamspeak or any communication software other than in-game chat. (See [1.6](#) for information about Selfspeccing).
 - In Freeze-Tag you'll be able to spectate frozen bodies in 3rd person as well and they will act as 'cameras' (you can actually turn in every direction whilst spectating a frozen body) to find out where opponents are. You can relay this information to your teammates.
 - If you 3rd person a frozen body in Freeze-Tag, and that body happens to be next to or in a doorway, you can actually open the door by switching to a view from a different player. As you are using the [Use \(E\)](#) key for this, it interacts with the door at the same time. This is the only bug in the entire game where a spectator can actually physically interact with the game. This can be used to confuse players as they think a player opened the door.
 - You can spectate players to follow them around and see if they are cheating (or simply follow them around to see how they play and maybe learn a thing or two). More information about spotting cheaters can be found in chapter [9.4](#).
 - In spectator mode you can make nice videos/recordings of players (both in Forced and Free spectator mode). More information about recording can be found in chapter [9.6](#).
 - You can fly through the maps and learn the lay-out of the map and maybe find some nice spots etc.
 - The following buttons can be used to move around in Free Spectator Mode:
 - [W](#) = Fly forward
 - [A](#) = Fly to the left
 - [S](#) = Fly backward
 - [D](#) = Fly to the right
 - [Z](#) = Lean to the left
 - [C](#) = Lean to the right
 - [CTRL](#) = Fly downwards / decrease altitude
 - [Spacebar](#) = Fly upwards / increase altitude
 - [SHIFT](#) + above movement keys = Decrease speed of movement
 - e.g. [SHIFT](#) + [W](#) = Fly slowly forward
- (Note: These are the default buttons; these can be changed and thus may differ)*
- Spectator movement speed is controlled by the player's movement speed and thus can be changed by altering (via console by an admin):
 - [sv_runspeed](#)
 - [sv_walkspeed](#)



5.12 Binoculars

In single player as well as multiplayer you have the possibility to use binoculars. The default button to activate the binoculars is [F7](#).

In single player there are several missions where you actually have to pick the binoculars up from a table before you can use them. In multiplayer you will always have the binoculars with you, except when you choose a sniper, this is because the sniper already has a zooming function, however this can be changed via script (meaning you can use both a sniper and have binoculars, as seen in the Base Assault mod as an example).

The binoculars have a few (good) uses and they will be listed below:

- In single player you will need them to launch airstrikes on e.g. tanks.
 - o (Use your binoculars to zoom on the tank, click your [left mouse](#) / [fire](#) button to call in an airstrike.)
- In the online Base Assault mod you can use them to call in airstrikes and artillery fire as well, see [10.5.4](#) for more information.
- When you don't have a sniper you can zoom in by using the binoculars; you'll get a clearer view of your surroundings and possibly spot opponents quicker.
- If you spot an opponent, quickly switch from your binoculars to your weapon and shoot.
- The exact middle point of your binoculars is where your crosshair will be as soon as you switch from binoculars to your weapon.
- Different custom binocular skins are available for download on the AAAA database.



5.13 Ladders

Another common object in the game is the ladder. There are several different ladders in the game, made of wood and metal (in custom maps/mods they even use different materials sometimes). Obviously ladders help you to climb from point A to point B.

You can use a ladder via 2 ways:

- 1) Press your **USE** key (Default = **E**) to start climbing.
- 2) Walk up against the ladder (either from bottom or top) to automatically start climbing.

There are a few tips/tricks and general information about ladders that will be shown below.

- The 'landsharking' bug is accomplished by using the ladder. More information about this can be found in [2.14](#).
- There is an anti-shark mod out there that instantly kills anyone who presses their **USE (E)** key on a ladder. Most servers stopped using this, however you can always check to make sure before you actually start playing.
- You can jump on a ladder (either from the ground or from another object like a crate) and quickly press your **USE (E)** key and you'll start your climb as well, but now you start a bit further up on the ladder instead of from the bottom. This could save you some time.
- If you're on the top of a ladder and want to go down quickly to not waste time, and you don't want to lose health either; you can jump down very close to the ladder, and before you hit the ground, press your **USE (E)** key and you'll quickly grab the ladder again near the bottom without losing health. Now simply climb one more step down or jump down as you're close enough to the ground to not lose health.
- When a player is already climbing the ladder, and you jump from e.g. a crate and grab the ladder at the same spot the player is, you'll both get 'stuck' on the ladder so try to avoid this at all cost. More information about getting stuck (on a ladder) can be found in [11.16](#).
- There is a bug, that if you try to get stuck with each other on a ladder, the player that jumped on it could get free and speed-boost up the ladder (it almost literally teleports you to the top of the ladder, saving A LOT of time). However, it's very, very difficult to duplicate this and thus not worth the trouble.
- If you lean (left or right) before you start climbing (and when you just start climbing), you'll be in a leaning position on the ladder and this might even give you a better field of view as some parts of the ladder that blocked your view are not blocking it anymore.



6. Communication

There are several ways to communicate with each other during games; here is a small list with advantages and disadvantages.

6.1 In-game Chat

You can chat to your team or to everyone easily by pressing **T** or **Y** (unless you have changed these default keys). Everyone has used this, some use it non-stop. The disadvantage of this is that you cannot choose who to talk to, it's either team chat, everyone or nothing. The 2nd disadvantage is, is that you can be easily killed while typing, so if you really need to type, locate a good spot and hide till you're done typing. I suggest you do not type near an enemy or when you know an enemy is close by.

6.2 In-Game Taunts (Instamsg_main)

The standard sentences you can shout by pressing **V**, followed by 2 numbers.

For example: **V+3+1 = Yes Sir!** (For the Allies)

Now you can keep moving unlike the In-game Chat and you're done very quick.

It has some nice standard sentences which you can use like **Thanks**, **Cover Me** and **Grenade!**

The disadvantage of this is that you can only choose out of a certain few taunts, which might not get the message clear for your team mates. Besides this, your opponent will be able to hear your taunts as well, thus knowing your location. I suggest not using this, unless you're really playing for fun with mates or if you want to lure your opponent to you. A list of taunts is available in **Appendix 2**.

6.3 X-Fire Chat

A widely-used program for games/servers and texting to friends. This can be used in-game and can be activated by the push of a button (or 2). Default is **SCROLL LOCK+X**. The major advantage is, you can choose who to talk to, and no one will be able to read your conversation, though if you don't have a person in your list who you want to talk to in the server, then you're in bad luck. This type of chat will also be dangerous and can get you killed, so I suggest you follow the same tips as noted above in In-game Chat. **X-FIRE CLIENT IS DOWN SINCE THE 12TH OF JUNE 2015.**

6.4 Voice Communication Programs

Used a lot in wars and for just having fun with some friends. You can talk to each other through a microphone, which means you can stay focused on the game itself. You can get your message through way quicker as well. The downside is, is that you might not be able to hear your opponent when someone is talking. Also background noise through a microphone can be a real pain. You can also choose to use the 'Push-To-Talk' option, you would need to push a button in order to talk, it can be annoying and distracting when you need to push a button during a game, if possible I suggest you choose a button on your mouse, so that you can still move around and shoot more easily. Examples of these programs are: Teamspeak 3, Ventrilo, Roger Wilco, Discord, Skype and some others.

6.5 Key Communication Messages

There are a few messages you need to communicate with your teammates (by either microphone or typing) which are vital to making tactic changes during the game and thus winning the game in the end.

- Give out **your position** (and where you're heading to) when possible.
- When you die, tell teammates where the **enemy shot you from** / where you died.
- When you die, tell teammates **how many enemies** there were on that spot.
- When you die, tell teammates **where the enemies are heading to** (if you could see).
- Shout out **locations of opponents** (also places where they are NOT!).
- Tell teammates **which skins you see and where** (by their skin you mostly know which player it is and thus how good they are).



7. Traditions

7.1 Bashing

The MOHAA community has set up their own traditions in the game, 1 of the most known are the duels/bashes. These are mostly in the beginning of a war / clan match to decide the team and/or map choice. In all weapons wars the duels are performed by having the full line ups of both teams bashing each other. The first team to lose all their players loses the duel, thus losing the team and/or map choice.

The key in succeeding here is to keep your distance from your opponent, try to lure them into bashing first and then strike. Ambushing or rushing into opponents who have already lost HP, are also good tactics. Always remember to pick up the HP of your opponent (and teammates!) to increase your chances of survival.

7.2 Duels

Now this guide is specified for Sniper Only, thus we will go into further detail with the sniper only duels.

In SO wars the war always begins with a duel. Mostly this is 1v1 (and this will continue until 1 team has no players left) but it is not uncommon that it will be a team vs. team duel. You pick an appropriate location (open field mostly, without (many) obstacles), in V2 this would be outside, near the V2. In Hunt & Bridge for example it would be on the streets. Both players (or teams) drop their weapon in front of them and they call a time (the time is placed on the top right of your screen), a normal round lasts 5 minutes, if it currently is 4:30 and the player calls "25", it means that at 4:25 the players must grab their weapons from the ground and start shooting each other with the intent to kill the other of course. The key is to drop the weapon as close as possible to yourself (without it being automatically grabbed again! You might need to practice this) and to pay most attention to the time, so that you can grab the weapon at the millisecond the time hits the called time, at that moment you press your 'USE' button right away, thus grabbing your sniper right away. From this point on it's a close combat fight, your only advantages here are that you grab the sniper faster than your opponent (thus letting you have the first shot) and that the Axis sniper can shoot faster (though could also be a disadvantage if someone is simply spraying everywhere with it).

Sometimes in public objective servers, when there is 1 player left on both teams, 1 person might call for a duel. You can of course decline his offer, but duelling is a nice tradition of MOHAA, so honouring the call would be a nice token. And the winner automatically wins the round of course.

7.3 Match 7 Rounds

The European version of wars (different from the USA version) is the same in all leagues and friendly wars/scrims. It consists out of 2 maps, including a total of 28 rounds (14 per map, 7 per team). It is however possible that people want to play a 3rd map, thus making the total amount of rounds 42.

Between team switch and map switch it is possible to call in a break where you can visit the toilet, get something to drink etc.

If for some reason you lose a player during a war, you can call for a 'hold', which is simply a time-out (starting from the next live round) to be able to get the player back, or get a new one in his place. These sniper wars mostly always start with a duel, all weapon wars start with a mass-bash. The American version however consists of a 5 rounds per team (10 per map) tradition.



7.4 Leagues (Ladders & Cups)

As for most games, MOHAA has their own leagues, created by the community. You can enter these leagues and play official wars with other clans, to fight for that #1 spot on the ladder, or gold trophy in cups. Now every league and every ladder & cup have their own rules. So MAKE SURE you follow all the rules to the letter. They have rules on how to setup your server, which mods and settings, which files are allowed on server and/or player, which anti-cheat to use, screenshots to make etc. Just make sure you check the rules pages and make sure no one can whine about something afterwards.

7.5 Etiquette

As most games, MOHAA has created its own etiquette, which might be the same or similar to other games as well. Etiquette is basically a behavioural code to which most people abide to, they aren't rules or anything and you don't have to follow them, however most people do out of respect.

Whenever someone gets killed by an opponent, they often comment with 'ns' (nice shot) or 'gg' (good game). The killer will reply with 'ty' (thank you) or another form of thanks. This is standard etiquette in all of MOHAA. However you of course do not have to do this. Especially not if you're still in a firefight or need to get somewhere quick and have no time for typing. Personally, I only use 'ns' when an actual really nice shot has been made, otherwise it loses its meaning to me. Having said that, I do always say thanks when someone tells me 'ns' or 'gg' out of respect. A list of commonly used abbreviations (especially in MOHAA) can be found in [Appendix 23](#).

When spotting someone standing still in a weird place and not aiming at anything (maybe aiming at a wall or gun in the air), it's possible they are [AFK](#) (away from keyboard) for a second or are typing. A lot of the times in MOHAA, people tend to walk past these players and not shoot them, out of respect. However, you can't always be certain if someone is away or not and sometimes you shoot them out of reflex, when looking around a corner for example. People try to avoid killing AFK players and avoid type-killing, but it still happens. In theory it is still the fault of the person not paying attention to the game for dying. Still, it is common and good etiquette to at least say 'sorry' when having accidentally killed someone who was typing or was AFK. However in official wars, these etiquettes are thrown out the door, as most people will do anything for a win and do not want to risk making a mistake and losing them the round. Also when playing OBJ, people are also more likely to shoot everyone on sight, as every player dead on the enemy team is a huge advantage. But even during wars, it's nice to keep a base of good etiquette to make the war more enjoyable.



8. Settings

8.1 Unnamedsoldier.cfg

This is the file where all your settings are located. It is located in your [mohaa\main\configs](#) folder. It includes all binds (keys), CVARs (settings) and other stuff that'll decide how you play the game.

Some servers might tend to mess up your [unnamedsoldier.cfg](#), to avoid this you can protect it from changes. Right click on the [unnamedsoldier.cfg](#), go to [properties](#) and make it "Read-Only" and press [Apply](#). If you want to change/add things to your unnamedsoldier.cfg, you can disable the Read-Only to edit the file, afterwards make it Read-Only again.

It's possible that [foresight](#), or any other program forced some aliases in your [unnamedsoldier.cfg](#). This is to prevent cheats from being activated. (They make the aliases so that when you type a cheat command you either quit the game or shout in the server that you're cheating). Examples:

[alias wb_item_esp "quit"](#)

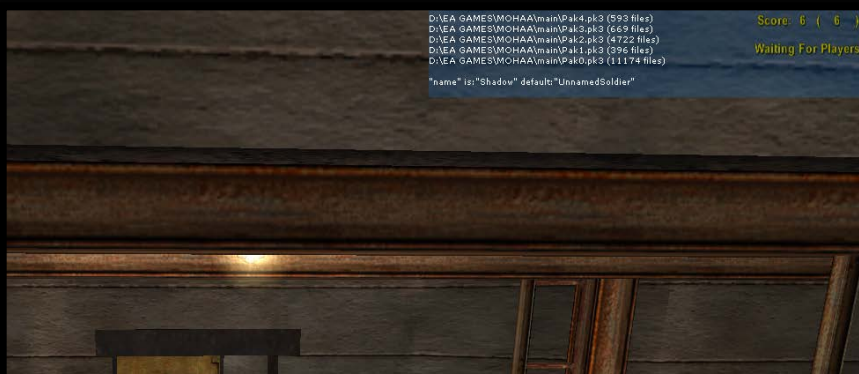
[alias r_loadmap "say I'm trying to crash the server! KICK ME! KICK ME!"](#)

*These aliases **will** conflict with MOHAAC, and possibly other anti-cheats, so removing them from the config is recommended.*

You can delete any other config ([newconfig.cfg](#) or [player.cfg](#)) in that folder, because they might collide with your unnamedsoldier.cfg. If there is a [foresight.cfg](#) in the folder, I suggest you open it, delete everything in it and save it, and afterwards make it Read-Only. (This way, servers with foresight won't mess up your configurations.)

8.2 Console

Next to the unnamedsoldier.cfg, there is another important factor for all settings, which is the [console](#). In console you can change all settings you want in-game. To enable console go to: [menu](#) -> [option](#) -> [advanced](#) -> and tick/check [console](#) on.



Or enable it via your [unnamedsoldier.cfg](#) by changing/adding the following command: [seta ui_console "1"](#). Console can now be opened by pressing the button below 'Escape' (which is: ``` or `~`). To enable a mini-version of console (which will be placed in the top right corner and will show console messages without having to open it) type in console: [ui_minicon 1](#). To disable console or mini-console, put the values from [1](#) back to [0](#).

The console also shows a lot of unnecessary errors, which do not influence the game but, are annoying to see. A fix for most of these errors is added to [Appendix 3](#).



8.3 Binds

You have the possibility to bind certain commands to certain keys. This way you can choose which key on your keyboard does which action. You can also bind CVARs, meaning you won't have to write down the complete commands in console. A list for all the keys MOHAA uses can be found in [8.6](#).

Below is shown how to bind simple text phrases, which you'll be able to send out in the server with the press of one key.

You can bind things either through [console](#), or by editing them directly in your [unnamedsoldier.cfg](#) (located in your [mohaa\main\configs](#)). Via [options](#) -> [controls](#) in the in-game menu you can also set your controls to certain buttons, and they will automatically get binded this way.

Open [console](#) (or your [unnamedsoldier.cfg](#)) and type in:

[bind](#) *key* [say](#) "text" (← "" (quotation marks) = needed when the text is more than 1 word)

Example [console](#): [bind](#) L [say](#) "w00t w00t" (by pressing L, this message will appear on screen: w00t w00t)

Example [unnamedsoldier.cfg](#): [seta](#) [bind](#) L [say](#) "w00t w00t" (Be sure to add 'seta' in [unnamedsoldier.cfg](#))

If for some reason you lost the bind to use the in game taunts (e.g. [v31](#) = [Yes Sir!](#)) you can rebind it by using the following bind:

[bind](#) v [instamsg_main](#) (by doing this you can use the taunts again)

To get rid of the background noise, you can use [cinematic](#) (a.k.a.: [s_ambientvolume 0](#)), which can be easily binded as well so that you don't have to retype it into console again:

[bind](#) p [cinematic](#) (by pressing P, the background noise will disappear)

(Note: [s_ambientvolume 1](#) returns the sound and [s_ambientvolume 2](#) doubles the sound volume.)

To see all your current binds in-game, type the following into console: [bindlist](#)

To unbind something, either change it in your [unnamedsoldier.cfg](#) or type in console: [unbind](#) *key*

If you lost any other default bind, a bind list is included in [Appendix 4](#).

8.3.1 Toggle

Next to the normal binding, you can also toggle your binds. It would be a lot easier if you could, for example, turn the [cg_lagometer](#) on and off with the click of a button, instead of typing it all in console.

If you would like to toggle a command use the following line in [console](#), or change it in your [unnamedsoldier.cfg](#):

[bind](#) *key* [toggle](#) *command*

Examples:

[bind](#) p [toggle](#) [cg_lagometer](#) // Turns the lagometer on and off

[bind](#) q [toggle](#) [fps](#) // Turns the FPS counter on and off

[bind](#) o [toggle](#) [ui_minicon](#) // Turns the mini console on and off

8.3.2 ALT and CTRL Binds

[ALT](#) binds and [CTRL](#) binds are similar to normal binds except they require the user to hold down a corresponding button while simultaneously pressing another. MOHAA supports both ALT and CTRL binds, but it is HIGHLY advisable NOT to use the CTRL binds as they conflict with the default bind on the CTRL key (crouching). In order to activate these addition binds, you must add the following to your [unnamedsoldier.cfg](#):

- [seta](#) [cl_altbindings](#) "1" (for ALT binds, 1 = on & 0 = off)

- [seta](#) [cl_ctrlbindings](#) "1" (for CTRL binds, 1 = on & 0 = off)



You can now add binds to your [unnamedsoldier.cfg](#). They are added the same way as regular binds except you add the word 'alt' or 'ctrl' before each bind.

- Example #1: [seta altbind v say "I killed you!"](#)
Now, when pressing [ALT](#) + [V](#) simultaneously in-game, the message: "[I killed you!](#)" will appear.
- Example #2: [seta ctrlbind p say "Hello!"](#)
Now, when pressing [CTRL](#) + [P](#) simultaneously in-game, the message: "[Hello!](#)" will appear.

To see the list of ALT binds in-game type into console: [altbindlist](#)

To see the list of CTRL binds in-game type into console: [ctrlbindlist](#)

To remove an ALT bind in-game type into console: [unaltbind *key*](#) (the key you want to unbind)

To remove a CTRL bind in-game type into console: [unctrlbind *key*](#) (the key you want to unbind)

- Example #1: [unaltbind v](#)
- Example #2: [unctrlbind p](#)

(These changes will NOT be permanent if your [unnamedsoldier.cfg](#) is set to [Read-Only](#).)

These ALT & CTRL forms of binds allow a player to add more customizable binds to keys that are easily accessible and that are otherwise used for normal gameplay.

(Source: Purple Elephant1au)

8.3.3 NUMPAD Binds

It is also possible to bind certain commands to the [NUMPAD](#) keys. They are normal binds just set to a special set of keys. These come in handy if you have phrases you repeat often, and run out of room on the standard set of keys on the keyboard, or Taunts that are one press away. The List below refers to each of the NUMPAD keys (the numbers we see) and their special key (the way MOHAA sees them) you set when you bind them.

Keys (numbers) we see on NUMPAD	Keys MOHAA sees
1 (End)	KP_END
2 (Down Arrow)	KP_DOWNARROW
3 (Page Down)	KP_PGDN
4 (Left Arrow)	KP_LEFTARROW
5	KP_5
6 (Right Arrow)	KP_RIGHTARROW
7 (Home)	KP_HOME
8 (Up Arrow)	KP_UPARROW
9 (Page Up)	KP_PGUP
0 (Insert)	KP_INS
. (Del)	KP_DEL
ENTER	KP_ENTER
+	KP_PLUS
-	KP_MINUS
*	KP_*
/	KP_SLASH
Num Lock	KP_NUMLOCK

These binds are added much the same way as regular binds (in [unnamedsoldier.cfg](#) or [console](#)):

- Example [console](#): [bind KP_END say "Hello"](#)
- Example [unnamedsoldier.cfg](#): [seta bind KP_END say "Hello"](#)
Now when pressing the [1](#) on your [NUMPAD](#) in-game, the message "[Hello](#)" will appear.

(Source: Purple Elephant1au)



8.3.4 Taunt Binds

You can also bind player taunts to keys. This is useful when e.g. you see an enemy and want to taunt "Enemy Spotted." to alert your teammates, but don't have the time to remember which keys to press in which order and by the time you read the screen you've already been shot and killed.

Works the same as any of the 'say' binds except this time, instead of saying a message (like: "w00t w00t") you want to say a taunt.

Taunts use an asterisk * in front of them to tell MOHAA you're about to send a taunt. So when you open your taunt menu (pressing V), your game has already compiled the following command ready to send: say *

It's just waiting for you to press two numbers to complete the taunt. So when you bind it, just add the numbers of the taunt you wish to use (see Appendix 2 for the full taunt list).

- Example #1: bind L say *31
Now when pressing the L on your keyboard in-game, you will taunt the message: 'Yes Sir!'
- Example #2: bind KP_PGDN say *33
Now when pressing the 9 on your NUMPAD in-game, you will taunt the message: 'Enemy Spotted.'

Next to the normal & NUMPAD binds, you can also use ALT & CTRL binds for this, but basically you will be still using multiple (2) buttons for 1 taunt. Though it's still one button less to press than the original taunt system, in which you require 3 buttons to say something.

- Example #1: altbind L say *31
Now when pressing ALT + L simultaneously on your keyboard in-game, you will taunt the message: 'Yes Sir!'
- Example #2: ctrlbind KP_PGDN say *33
Now when pressing ALT + 9 simultaneously on your NUMPAD in-game, you will taunt the message: 'Enemy Spotted.'

(Source: Purple Elephant1au)

Remember, if you want to add binds (of any kind) to your unnamedsoldier.cfg instead of adding them via console; be sure to add 'seta' in front of every bind (so in front of all the examples listed above).

Also note that there already is a default bindlist in your unnamedsoldier.cfg, so instead of creating a new bind you might be able to overwrite a current bind. If you happen to have a key binded twice in the same unnamedsoldier.cfg, the game will only read/activate the one placed last in your config.



8.3.5 Bind List

In **Appendix 4** of this guide you can see the default bindlist for the game, which you can easily copy and use for other purposes. However, below is another bindlist, which also includes the default binds but also a few extra common binds that people may want to use.

Remember; every bind below needs the word 'bind' in front of it in order for it to work. Please check out chapter **8.3** and its subchapters for more details on how to bind.

Key	Setting/Command	Information
1	useweaponclass pistol	Switch to Pistol
2	useweaponclass rifle	Switch to Rifle
3	useweaponclass smg	Switch to SMG
4	useweaponclass mg	Switch to MG
5	useweaponclass grenade	Switch to Grenade
6	useweaponclass heavy	Switch to Shotgun/Bazooka
7	toggleitem	Switch to item (e.g. Binoculars)
H	weapdrop	Drop Weapon
Q	holster	Holster Weapon
R	reload	Reload
MOUSE1	+attackprimary	Fire Weapon
MOUSE2	+attacksecondary	Scope Weapon / Bash
MWHEELDOWN	weapprev	Switch to Previous Weapon
MWHEELUP	weapnext	Switch to Next Weapon
W	+forward	Move Forwards
S	+back	Move Backwards
A	+moveleft	Strafe Left
D	+moveright	Strafe Right
Z	+leanleft	Lean Left
C	+leanright	Lean Right
SPACE	+moveup	Jump
LCTRL	+movedown	Crouch
LSHIFT	+speed	Walk (Silent)
TAB	+scores	Scoreboard
`	toggleconsole	Opens Console
ESCAPE	togglemenu	Opens Menu
P	pushmenu_weaponselect	Open Weapon Menu
U	pushmenu_teamselect	Open Team Menu
F2	ui_getplayermodel;pushmenu_dm mpoptions	Open Player Model Menu
F3	pushmenu Controls	Open Controls Menu
V	instamsg_main	Open Taunt Menu
T	sayteam	Team Chat
Y	say	Chat
F6	messagemode	Chat History
E	+use	Use
F12	screenshot	Screenshot
PAUSE	pause	Pause (SP)
F4	pushmenu_sp LoadSave	Open Saved Games Menu (SP)
F5	savegame quick	Save Game (SP)
F9	loadgame quick	Load Game (SP)
	cinematic	Removes Cinematic Sounds
	vote yes	Vote Yes (when a callvote is issued)
	vote no	Vote No (when a callvote is issued)
	coord	Shows current coordinates in console



viewpos	Shows viewing position in console
kill	Commit Suicide
disconnect	Disconnect from the Server
quit	Quit the Game
join_team allies	Switch to Allies
join_team axis	Switch to Axis
spectator	Go to Spectator
vid_restart	Restart Video/Screen
reconnect	Reconnect to the Server
uselast	Switch to your previously used weapon
+left	Look towards the left
+right	Look towards the right
centerview	Center your view
+lookup	Look up
+lookdown	Look down

The non-default binds have no key assigned to them in the above table. If you want to use those extra binds, you'll have to pick a key to assign them to yourself.

Example:

Console: `bind L disconnect`
Unnamedsoldier.cfg: `bind L "disconnect"`

Now when pressing **L**, you will **disconnect** from the current server you are on.
Remember, in the **unnamedsoldier.cfg** the values should always be in brackets ("").

Some binds are also toggled (or are most useful when toggled), these are listed in the table below:

Setting/Command	Information
cl_run	Switches always running on and off
cg_lagometer	Switches the lagometer on and off
fps	Switches the FPS counter on and off
ui_minicon	Switches the mini console on and off
whereami	Switches the printing of Coordinates and Yaw of the player continuously on and off

Example:

Console: `bind Q toggle fps`
Unnamedsoldier.cfg: `bind Q toggle "fps"`

Now when pressing **Q** once, your FPS counter will show up in the bottom of your screen. If you press it again, the counter will disappear.

However there are still other commands/CVARs you can toggle besides these, specifically CVARs that only have the values 0 & 1 (on and off). You can view a list of CVARs in chapter [8.4.1](#).

More info on toggle binds can be found in chapter [8.3.1](#).



8.4 CVARS

Basically, CVARs are the commands you enter into console to (de)activate or change a setting of your game.

Wikipedia uses the following definition for a CVAR (which might help you understand the phrase better): “**CVAR** and **ConVar** are abbreviations for **Console Variable**. Depending on the context in which the term is found, it may also stand for Client Variable, or Configuration Variable.

This is a type of variable used in many computer games and computer 3D simulation engines that can be manipulated by a text based command line interface within the game or engine, often called a console. They commonly hold configuration parameters, but can be used for anything that may potentially be accessed and/or modified by the console.”

(Source: Wikipedia)

To open a list of all (your) CVARS & Commands, you can type in console the following:

`logfile 1;cvvarlist;wait;cmdlist;wait;logfile 0`

When you leave the game, a file called “`qconsole.log`” will be created in your `mohaa\main`, which will have all CVARS and CMD’s listed. (You can use notepad or word to open the log.)

In [Appendix 27](#) you’ll be able to find several documents that contain all kinds of different CVARs and commands for the game. Have a browse and you might find some useful things (especially for modders), however; most useful CVARs will be included within this guide, including explanations about those CVARs.

8.4.1 Basic Client CVAR List

This is a list of the basic and common (but also most useful) CVARs for a client/player to use. Most of these CVARs are automatically changed when you change something in your options menu in-game (all these options are CVARs, and changing them, changes the value of the CVAR).

You can add these CVARs to your `unnamedsoldier.cfg`, and do not forget to place ‘`seta`’ in front of them. You can also change them in-game, but if your `unnamedsoldier.cfg` is on [Read-Only](#), the setting will be switched back to the previous value after you leave the game. Note that ALL values need to be between **brackets** in the `unnamedsoldier.cfg`.

Example for the `unnamedsoldier.cfg`: `seta com_maxfps "250"`

Example for `console` (in-game): `com_maxfps 250`

CVAR	Default Value	Value Range	Information
Basic CVARs			
Name	-	-	Player Name
ui_console	1	0 / 1	Enable Console (on or off)
dm_playermodel	-	-	Allied Player Model
dm_playergermanmodel	-	-	German Player Model
r_fullscreen	1	0 / 1	Full Screen Mode (on or off)
cl_playintro	0	0 / 1	Start-up Cinematic Intro (on or off)
cg_smoothclients	1	0 / 1	Smooths player movements (better accuracy)
cg_forcemodel	0	0 / 1	Force Models (on or off)
sensitivity	-	1 – 20	Mouse Sensitivity (depends on mouse, DPI, settings etc., check what feels right)



in_mouse	-1	-1 / 1	Mouse Support on or off. Change value if issues occur (differs per person)
crosshair	1	0 / 1	Show Crosshair (on or off)
ui_hud	1	0 / 1	Show HUD (on or off) compass, health, ammo etc.
cl_run	1	0 / 1	Always Running (on or off)
Network & FPS CVARs			
rate	30000	30000 (LAN) 25000 (xDSL) 20000 (Cable) 5000 (ISDN) 4000 (56k modem) 3000 (33.6k modem) 2500 (22.8k modem)	Game rates; 30000 is the best option for everyone nowadays.
com_maxfps	125	60 – 250	Max. FPS the game will play in. Over 250 and below 60 can cause lag.
cl_maxpackets	30	20 – 100	Max. number of client packets to send per second. Low (20) is lower, but unstable ping. High (100) is higher, but stable ping.
snaps	20	20	Default and max. snapshots the client receives per second.
cl_packetdup	1	0 – 5	If you have much packetloss set this to 2 or 3. It will increase the bandwidth though. The higher the value the more duplicate packets the client will send to the server.
Audio CVARs			
s_khz	44	11 22 44	Sound Quality (Low, Medium, High) (lowest 11 to highest 44)
s_musicvolume	0.9	0.0 – 1.0	Music Volume (1.0 = 100%)
s_volume	0.9	0.0 – 1.0	Sound Volume (1.0 = 100%)
s_milesdriver	Miles Fast 2D Positional Audio	-	Default MOHAA Sound Driver
cg_rain	1	0 / 1	Weather Effects (on or off)
s_speaker_type	0	0 1 2 3	Speaker Mode (0 = Stereo, 1 = Headphones, 2 = Surround, 3 = Quad)
s_ambientvolume	1	0 / 1	Ambient Volume (on or off), similar to the cinematic command (background noise)
Tool CVARs			
cl_lagometer	0	0 / 1	Lagometer (on or off), shows your latency on screen
ui_minicon	0	0 / 1	Mini Console (on or off), draws mini transparent console on screen



fps	0	0 / 1	FPS Meter (on or off), prints FPS on screen
cl_greenfps	0	0 / 1	Colours the FPS Meter Green (on or off)
whereami	0	0 / 1	Prints Coordinates and Yaw of player continuously (on or off). Needs developer to 1. Useful: ui_minicon to 1
developer	1	0 1 2 3	Developer Mode (0 = off, see 8.17 for more info)
Misc CVARs			
r_forceClampToEdge	1	0 / 1	Unknown, every config has it set to 1
Visual CVARs			
r_ext_compressed_textures	1	0 / 1	Compressed Textures (on or off) <i>Set to 0 if unable to see custom (weapon) skins.</i>
r_fastdlights	1	0 / 1	Real Dynamic Lighting (on or off)
cg_shadows	0	0	Shadows (should be on 0)
r_fastentlight	1	0 / 1	Full Entity Lighting (on or off)
cg_drawviewmodel	2	0 1 2	View Model (0 = no hands, no weapon, 1 = only show weapon, 2 = show hands & weapon)
r_gamma	1.0	0.0 – 2.0	Video Gamma
r_subdivisions	3	3 4 10 20	Curve Detail (lowest 20, to highest 3)
r_colorbits	32	16 32	Colour Depth (lowest 16 to highest 32)
r_texturebits	32	16 32	Texture Depth (lowest 16 to highest 32)
r_picmip	0	0 1 2	Texture Quality (lowest 2 to highest 0)
r_texturemode	gl_linear_mipmap_linear	gl_linear_mipmap_linear gl_linear_mipmap_nearest	Texture Detail (<i>linear</i> is best & smoothest, <i>nearest</i> is worst).
cg_effectdetail	1.0	0.2 0.3 0.5 0.7 0.8 0.95 1.0	Effect Detail (lowest 0.2 to highest 1.0)
r_drawstaticdecals	1	0 / 1	Wall Decals (on or off)
cg_marks_add	1	0 / 1	Show Marks on Walls (on or off)
vss_draw	1	0 / 1	Volumetric Smoke (on or off)



There are 2 more Visual Options, but these control several CVARs and their values. So by changing 1 option, you're actually changing the values of several CVARs. These are shown below:

Terrain Details				
	Low	Medium	High	Maximum
CVAR				
ter_error	10	9	7	4
ter_maxlod	3	4	5	6
ter_maxtris	16384	16384	16384	24576

(So by placing Terrain Details to Maximum in the in-game options menu, you'll change the above 3 CVARs to the values in the last column (4, 6, 24576))

Model Details						
	Lowest	Low	Medium Low	Medium High	High	Highest
CVAR						
r_lodcap	0.25	0.35	0.35	0.50	0.90	1.00
r_lodscale	0.25	0.35	0.45	0.55	0.90	1.10
r_lodviewmodelcap	0.25	0.25	0.45	0.55	0.90	1.00

(So by placing Model Details to Highest in the in-game options menu, you'll change the above 3 CVARs to the values in the last column (1.00, 1.10, 1.00))

8.4.2 Screen Resolution CVARs

These are the CVARs needed to set your (custom) screen resolution.

The default resolutions are simple:

Complete CVAR	Resolution
seta r_mode "3"	512 x 384
seta r_mode "4"	640 x 480
seta r_mode "5"	800 x 600
seta r_mode "6"	1024 x 768
seta r_mode "7"	1152 x 864
seta r_mode "8"	1280 x 1024
seta r_mode "9"	1600 x 1200

Basically each resolution only needs ONE CVAR.

If you want a custom resolution, you need 3 different CVARs in your [unnamedsoldier.cfg](#).

1. `seta r_mode "-1"` //This exact CVAR needs to be on -1 for every custom resolution
2. `seta r_customwidth` //For example: `seta r_customwidth 1920`
3. `seta r_customheight` //For example: `seta r_customheight 1080`



So with `r_mode` on `-1`, the following `16:9` resolutions are available:

r_customwidth	r_customheight
640	360
854	480
960	540
1024	576
1280	720
1360	768
1366	768
1600	900
1920	1080
2048	1152
2560	1440

(**GREEN**: the 1366x768 seems to sometimes cause issues, and 1360x768 seems to be stable in that case, so it's an extra resolution)

NOTE: If the game crashes, try a lower resolution.

My laptop's maximum was 1152x864, beyond that, MOHAA would crash instantly.

8.4.3 Max Settings (Highest CVAR Values)

To place your MOHAA on max (highest) settings, the following CVAR settings are recommended. You can place these directly into your `unnamedsoldier.cfg`. When you don't like certain settings you can of course change it to something you do like.

"Open up your "unnamedsoldier.cfg".

Now delete everything except your binds.

Next copy and paste all the "CVARS" below and place them under your binds.

(You can edit the settings if you like; that's what the extra info after the ///// is there for.)

**If you notice the CVAR in green... well that has extra max settings that were disabled in the games menu. I already entered the max variable not given by the menu so you don't have to.*

//

// Cvars

//

`seta r_ext_compressed_textures "1" // COMPRESSED TEXTURES - (on)`

`seta cl_playintro "0" // SKIP MOHAA INTRO - PLAY INTRO (off)`

`seta r_fastdlights "1" // REAL DYNAMIC LIGHTING - (on)`

`seta cg_forcemodel "0" // FORCE MODELS - (off)`

`seta com_maxfps "60" // MAX FRAMES ALLOWED - (60 stays fluid)`

`seta cl_greenfps "1" // GREEN FPS METER - (on)`

`seta ui_console "1" // CONSOLE ENABLED - (on)`

`seta s_khz "44" // SOUND QUALITY - (max)`

`seta s_musicvolume "0.900000" // PREFERED MUSIC VOLUME`

`seta s_volume "0.900000" // PREFERED SOUND VOLUME`

`seta cg_shadows "2" // SHADOWS - (max) 1-med 0-off`

`seta r_fastentlight "1" // FULL ENTITY LIGHTING - (on)`

`seta r_lodviewmodelcap "1.0" //////////////// MODEL DETAIL - (max) 0.9;0.55;0.45;0.25=lowest`

`seta r_lodcap "1.0" //////////////// MODEL DETAIL - (max) 0.9;0.55;0.35;0.25=lowest`

`seta r_lodscale "1.1" //////////////// MODEL DETAIL - (highest) 0.9;0.55;0.45;0.35;0.25=lowest`

`seta r_gamma "1.333333" // PREFERED VIDEO GAMMA`

`seta r_subdivisions "1" // CURVE DETAIL - (highest) 2;3;4;10;20=lowest (1&2 disabled in options)`



```
seta r_mode "6" //////////////////////////////////// RESOLUTION - (1024/768)=best. 4=800/600
seta r_colorbits "32" //////////////////////////////////// COLOR DEPTH - (max) 16=lowest
seta r_texturebits "32" //////////////////////////////////// TEXTURE DEPTH - (max) 16=lowest
seta r_picmip "0" //////////////////////////////////// TEXTURE QUALITY - (max) 1;2=lowest
seta r_forceClampToEdge "1" //////////////////////////////////// ?
seta s_milesdriver "Miles Fast 2D Positional Audio"////// DEFAULT MOHAA SOUND DRIVER
seta cl_maxpackets "30" //////////////////////////////////// PACKETS TO SEND PER SEC. - (max)
seta rate "30000" //////////////////////////////////// NET RATE - (max)
seta developer "1" //////////////////////////////////// DEVELOPER MODE - (on)
seta cg_rain "1" //////////////////////////////////// WEATHER EFFECTS - (on)
seta cg_drawviewmodel "2" //////////////////////////////////// VIEW MODEL - (max) 1;0=lowest
seta ter_error "4" //////////////////////////////////// TERRAIN DETAIL - (max) 7;9;10=lowest
seta ter_maxlod "6" //////////////////////////////////// TERRAIN DETAIL - (max) 5;4;3=lowest
seta ter_maxtris "24576" //////////////////////////////////// TERRAIN DETAIL - (max) 16384=lowest
seta cg_effectdetail "1.0" //////////////////////////////////// EFFECTS DETAIL - (max) 0.95;0.8;0.7;0.5;0.3;0.2=lowest
seta r_drawstaticdecals "1" //////////////////////////////////// WALL DECALS - (on)
seta vss_draw "1" //////////////////////////////////// VOLUMETRIC SMOKE - (on)
seta s_speaker_type "2" //////////////////////////////////// SPEAKER MODE - (surround) 1=Headphones 3=Quad 0=Stereo
seta snaps "20" //////////////////////////////////// SNAPSHOTS CLEINT RECEIVES PER SEC. - (max)
```

Make sure you delete all the "/////////" and the extra info after it.

Now save it. After saving it, right click on "unnamedsoldier.cfg" (the file you just saved), go to properties, check "Read-Only", Apply, OK.

Last. Load up MOHAA.

It may crash on the first attempt. Try again.

If it works, you are done."

(Source: electrickrypt)



8.4.4 Demo (Recording) Playback CVARs

If you want (more) control over the demos you've recorded in-game, the following Playback Control CVARs will help you to slow down or speed up the demos you are watching, making life somewhat easier. More information on how to record and how to watch demos, check chapter [9.6](#).

The easiest way to use these CVARs is to bind them; however they can be used without binding. Place these binds in your [unnamedsoldier.cfg](#) (make sure it's not on [Read-Only](#) when editing) to be able to use them whenever you want.

Bind	Useful Key	CVAR/Value	Information
bind	UPARROW	"timescale 1"	This plays your demo normally (default speed).
bind	DOWNARROW	"timescale .1"	This is supposed to pause your demo; however it seems to only slow it down.
bind	LEFTARROW	"add timescale -0.1"	This slows down your demo (the more you press it, the slower it goes).
bind	RIGHTARROW	"add timescale 0.1"	This speeds up your demo (the more you press it, the faster it goes).
bind	F10	"+scores"	This shows you the scoreboard whilst watching a demo (TAB won't work).
bind	F9	"cinematic"	This removes background sounds whilst watching a demo.
bind	F8	"toggle cl_freezedemo"	This freezes the demo you're watching (press again to unfreeze); however the demo continues on playing in the background, so when you unfreeze it, all the time you frozen it for will have passed, so it's not an actual pause.
Outdated Binds/CVARs (below)			
bind	F5	"cl_avidemo 2"	When watching a demo, this will create 2 tga screenshots per frame.
bind	F6	"cl_avidemo 25"	When watching a demo, this will create 25 tga screenshots per frame.
bind	F7	"cl_avidemo 0"	When watching a demo, this will stop you from making tga screenshots.

The outdated binds ([cl_avidemo](#)) were used to make loads of screenshots whilst watching a demo, and afterwards you could combine all those screenshots via all kinds of software, to create it into an [avi](#) file and basically have a smooth video.

Nowadays people rather use [Fraps](#) or other screen capture software to instantly create videos of your demos, instead of going through the trouble of creating loads of screenshots in your folder.

MOHAAC had its own Demo Theater to playback demos. MOHAAC's specific playback controls have been added to [playback.cfg](#) in [Appendix 19](#). **MOHAAC is now down**, but any info regarding its Demo Theater can be found in chapter [9.6.3](#).

Some examples on how to place a bind in your config and how to activate a CVAR via console:

Example [unnamedsoldier.cfg](#): `bind RIGHTARROW "add timescale 0.1"`

Example [unnamedsoldier.cfg](#): `bind F8 "toggle cl_freezedemo"`

Example [console](#): `add timescale 0.1`

Example [console](#): `toggle cl_freezedemo`

(Note: when doing it all via console, you will have to keep typing/changing the CVARs, it's a mess.)



Other useful CVARs when recording (to create a cleaner camera look):

CVAR	Value	Information
fps	0	Disables your fps counter on screen.
cg_lagometer	0	Disables your lagometer on screen.
ui_hud	0	Disables most HUD (compass, ammo bar, level time).

8.4.4.1 X-Ray Mode

MOHAAC had the idea of adding an '**X-Ray Mode**'. This is helpful to detect cheaters as when you are watching the demo of a player, you'll see all players through walls (like a wallhack) and thus you'll be able to see if anyone is actually following players through walls. Of course this is not a sure-proof measure, but it can be a great help when the cheater is obvious.

To use this for yourself, you'll need to add a simple [pk3](#) cham (wallhack) to your [mohaa\main](#) folder when watching the demo. I will not include any cheats to this guide, so if you want to use this option, you'll have to find a cheat for yourself.

WARNING: Make sure to remove this cheat file again when you have watched the demo/recording. If you keep this in your folder, you will be banned from Anti-Cheats and servers will also ban you when they find out. There is no excuse to have cheats in your folder when playing online, so it will be your own fault. Use at your own discretion.

8.4.4.2 Remove "Press fire to join" Message

Below will be explained how to get rid of the "[Press fire to join the battle!](#)" message that keeps popping up when you're in spectator mode. It's useful to remove when recording in spectator, or else it'll become really annoying.

This will only work Server-Side, thus you can't simply use it whenever you want unless you use it on your own server, or the Server admin implements it for you. You'll have to edit the Server's [localization.txt](#) file like this:

1. Create a folder in your Server's [main](#) folder called '[global](#)'.
2. Get the [localization.txt](#) file from the [global](#) folder within your [Pak0.pk3](#) and copy it to your newly made [main\global](#) folder.
3. Open the [localization.txt](#) file and search for "[Press fire to join the battle!](#)".
4. You'll find 2 lines of the same phrase, and it'll look something like this:

```
{ "Press fire to join the battle!" "Press fire to join the battle!" }
```
5. Remove the 2nd (right) line and replace it with a space between the brackets;

```
{ "Press fire to join the battle!" " " }
```
6. Make sure there's only **one** space between the 2 brackets at the end, otherwise MOHAA will just use the default line of 'Press fire to join the battle!' again.
7. Save the file and restart your server. No message should appear now.

8.4.4.3 Remove Avatars

For filming/recording purposes it might look smoother & cleaner to remove the Avatars above player's heads. Avatars are the allied & axis icons you can see above your teammates' heads.

You can use a No Avatar mod (created for this purpose), which is available [HERE](#).

It's a Client-Side mod, so simply place it in your main folder and you're good to go.

It's suggested to only use this for recording, as it can be a disadvantage to you whilst playing. You might accidentally shoot at and possibly kill your own teammates.



8.4.5 Basic Admin & Server CVAR List

Admins can use a wide variety of CVARS and RCON commands to run and control the server properly. A few helpful RCON guides have been included to [Appendix 8](#); however the one below is more complete and has more information. I'll try to explain what all CVARs mean/do. [Appendix 26](#) includes a list of commands to load the most known (custom) maps which can be activated through rcon ([rcon map *mapname*](#)) or by a callvote. Some mods come with extra CVARs, be sure to check the README or any other document that might be included with the mod for more information.

CVARS of a server can be changed through [console](#) by using [RCON](#) (if you have the [rconpassword](#)) and by editing the [server.cfg](#) which can be found in the server folder (ask your server host if you're not sure where to look). Make sure to place '[seta](#)' in front of every CVAR in your [server.cfg](#).

You need to enter an rconpassword first before trying to change CVARs in the server itself. To access 'admin mode' in your server do the following:

1. Open [console](#)
2. Type: [rconpassword](#) *password*
3. Press [Enter](#)
4. Use any CVAR with '[rcon](#)' in front of it.

Examples to edit CVARs

Example [console](#): [rcon g_teamdamage 1](#)

Example [console](#): [rcon map dm/mohdm2](#)

Example [server.cfg](#): [seta g_teamdamage "1"](#)

Example [server.cfg](#): [seta map "dm/mohdm2"](#)

NOTE 1: Use quotation marks (" ") in your [server.cfg](#) between the value you are changing, as shown in the examples above.

NOTE 2: Make sure your [server.cfg](#) is **NOT** set to [Read-Only](#) before editing, otherwise you won't be able to edit it. Save the [server.cfg](#) after editing and possibly replace it with the older version in your server's folder.

THE ADMIN/SERVER CVARLIST BEGINS ON THE NEXT PAGE.



CVAR	Default Value	Value Limit	Information
Server Information CVARs			
sv_hostname	Text	-	You can set your server's name here, as it will appear online to others.
Admin	Text	-	Set the server's admin name here.
URL	Text	-	Set the server's website link here.
Email	Text	-	Set the server's (admin) email here.
Location	Text	-	Set the server's location here.
sv_gamespy	1	0 / 1	Switch visibility of the server (online) on or off.
rconpassword	Text	-	The RCON password of the server goes here.
sv_maxclients	16	0 – 64	Maximum of players allowed on the server. When you rent a server, you can't change the value.
sv_privateclients	0	0 – 64	The amount of player slots which require a password to join (and are locked for others).
sv_privatepassword	Text	-	The password for the private server slots.
password	Text	-	Sets a password on the server, only people that know the password can connect to the server.
Latency & FPS CVARs			
sv_maxrate	30000	0 – 30000	Limits the players to pull up to 30,000 bps (the players can play with a max. rate of 30,000, which is the max of mohaa).
sv_fps	20	-	Default value for the server to process FPS. Setting it higher will increase lag.
sv_maxping	0	0 – 999	The maximum ping that players can connect with. HOWEVER it doesn't work as it should and using any value other than 0 can have faulty and undesired effects.
g_smoothclients	1	0 / 1	Set to 1 to avoid aim issues in-game.
Protection CVARs			
sv_floodprotect	1	0-1	Prevent players from flooding the server (on/off).
flood_waitdelay	10	0-100	Default flood protection values.
flood_persecond	4	0-100	Default flood protection values.
flood_msgs	4	0-100	Default flood protection values.
sv_pure	0	0 / 1	Requires players to have a pure, stock game. However this CVAR/setting does NOT work.
sv_allowdownload	0	0 / 1	This CVAR does not work as it should, however when set to 1, players can obtain your server.cfg and rconpassword. So NEVER put it on 1.
Map Setting CVARs			
timelimit	15	1 – 999	The time (in minutes) each map will run for.
roundlimit	0	0 – 999	Sets the time for a round to last in round-based games. On 0 the game won't end on round limit.
fraglimit	0	0 – 999	Sets the amount of kills needed to change the maps. On 0 the game won't end on frag limit.
g_teamdamage	0	0 / 1	Sets friendly fire on or off.



g_gametype	2	1 – 6	Sets the gametype for the map & server: 1 = Free for All 2 = Team Death Match 3 = Round Based 4 = Objective 5 = Tug Of War (SH Only) 6 = Liberation (BT Only)
map	<i>Text</i>	-	The first map the server will run. For example: obj/obj_team2
sv_maplist	<i>Text</i>	-	The maps you want the server to run. Use a space after each map, for example: obj/obj_team2 obj/obj_team1
Movement CVARs			
sv_gravity	800	0 – 10000	The higher you set it, the more damage you get from a fall (or even insta-die when jumping), lower is longer air-time. Recommended to keep at 800 and not change it.
sv_runspeed	250	0 – 10000	Decrease or increase the runspeed. Try not to distance too much from the default value to keep the game playable.
sv_walkspeed	150	0 – 10000	Decrease or increase the walkspeed (silent walk). Try not to distance too much from the default value to keep the game playable.
Timed CVARs			
g_allowjointime	2	0 – 500	Time in seconds allowed for players to (re)spawn in a live game. Set low to avoid players respawn cheating in round-based games.
g_inactivespectate	30	0 – 999	Sets the amount of time before a player becomes a spectator when not having moved.
g_inactivekick	120	0 – 999	Sets the amount of time before a player is kicked when inactive.
g_droppeditemlife	30	0 – 500	Sets the time in seconds it takes for health packs and weapons from dead players to despawn. Set to 0 to instantly remove all dropped health packs and weapons.
g_forcerespawn	5	0 – 500	Forces a dead body to respawn in x seconds (or forcing it to go to spec, depending on the gametype), otherwise dead bodies could remain in-game and cause issues.
g_teamswitchdelay	0	0 – 500	Time in seconds it takes before you can join a different team again. Only works sometimes so don't bother with it. (0 = off.)
sv_reconnectlimit	5	0 – 500	Sets minimum period required between client reconnects in seconds.
Log CVARs			
developer	0	0 – 3	Set to 1, 2 or 3 to enable more info in the log. 2 gives the most info.
logfile	0	0 – 3	Set to 1, 2 or 3 to create logfiles (1 is buffered, 2 is continuous, 3 is appending to existing).



g_logsync	0	0 / 1	Set to 1 to let the logfiles be written line by line, instead of big chunks (easier to read).
sv_chatter	1	0 / 1	Set to 1 to log chats (if logging enabled).
chat	1	0 / 1	Set to 1 to log chats (if logging enabled).
MISC CVARs			
g_allowvote	0	0 / 1	Enables voting (1). As this can be abused, it's mostly switched off (0).
dmflags	0	-	Use DMFLAG-calculator to acquire the needed value to use. Set to 0 to switch off all dmflags.
g_spectate_allow_full_chat	0	0 / 1	When set to 1, it would enable spectators to interact with live players via chat. Advised to leave this off (0) to help avoid cheating.
g_immediateswitch	0	0 / 1	When set to 1, disables the weapon switch animation, so players can instantly switch weapons without seeing the animation of the current weapon being put away (saves about 0.3s of time).

The following CVARs only work in-game via [RCON](#) (or via a live server tool that allows you to use rcon commands, like [CK Autokick](#) or [scapp-host](#)). These **CAN'T** be activated via the [server.cfg](#).

Make sure you type 'rcon' in front of every CVAR.
e.g. [rcon clientkick 1](#)

In-Game RCON CVARs			
CVAR	Default Value	Value Limit	Information
status	-	-	Shows you a list of all clients in the game, including their names, IPs and clientnumber.
kick	<i>Name</i>	-	Enter a name to be kicked from the server. Use quotation marks for their names (e.g. rcon kick "Super Noob").
kick all	-	-	Kicks all players from the server.
clientkick	-	0 – 64	Kicks the player by his corresponding clientnumber, which you can find by using rcon status. (e.g. rcon clientkick 5)
dumpuser	<i>Name</i>	-	Shows certain info of a specific player (his playermodels, rate, IP, name, snaps etc.). (e.g. rcon dumpuser "Super Noob")
say	<i>Text</i>	-	Allows you to type to the entire server via console. (e.g. rcon say "What's up everyone?")
path	-	-	Shows you all the pk3 files within the server's main folder.
dir	-	-	Shows you all the files in the server's main folder.
quit	-	-	Stops/crashes the server.
crash	-	-	Stops/crashes the server.
serverinfo	-	-	Shows current server settings.



cmdlist	-	-	Will show you all known rcon commands (they don't all work though or not as they should).
cvarlist	-	-	Will show you all known CVARs and variables. Not all work though.
freeze	-	0 – 999	Freezes all players in the server for x amount of seconds (e.g. rcon freeze 10).
meminfo	-	-	Will show you information on how much memory your dedicated server is using.
restart	-	-	Restarts the round/map completely.
systeminfo	-	-	Shows you the values of g_synchronousclients , sv_serverid and timescale .

8.4.6 Reborn CVARs

In [Appendix 1](#) you'll be able to find the official [Reborn](#) (1.12) Patch documentation, which includes a list of all their new CVARs, which will only work when your server is running the Reborn patch. Next to this it also includes info on their new voting system, admin commands (& their admin system) and more. **Remember**, the Reborn patch and its CVARs only work for [Allied Assault](#), not SH or BT.

However, below will follow a list with the most important RCON CVARs, with additional information gathered which has been collected from personal experience.

Note that just like regular (default) admin/server CVARs, these Reborn CVARs also can be used/changed either via your [server.cfg](#) or via [console](#) (with [RCON](#)) in-game.

Example [server.cfg](#): [seta sv_disable taunt "1"](#)

Example [console](#): [rcon sv_disable taunt 1](#)

There are 2 CVARs that **ONLY** work via [console](#) in-game; one for Admins and one for Clients.

Admin CVAR: [rcon sv_info](#)

(This will show you which patch version and build your server is running)

Client CVAR: [patchver](#)

(This will show you what Reborn settings the server you're on is running, and which patch version)

THE REBORN CVAR LIST BEGINS ON THE NEXT PAGE.



REBORN CVARs			
CVAR	Default Value	Value Limit	Information
g_badchatlimit	3	0 – 65000	Sets the limit for bad words to be used until kick (bad words can be added in the chatfilter.cfg).
g_teambalance	0	0 / 1	When this CVAR is set to 1, it turns on basic Team Balance on server. Whenever player joins a team, it forces player to Auto Join Team instead of Join Allies or Join Axis . Which auto-balances the teams.
g_votetimeout	1	0 – 5	CVAR sets Vote Expire Time in Reborn's voting system. Value is in minutes.
sv_antistwh	1	0 / 1	Turns on the Anti-Shoot Through Wall Hack system. STWH will not work anymore. Very small chance that a regular bullet hit won't register when shooting next to a wall. Switch it off by setting this CVAR to 0.
sv_antiwh	0	0 – 6	Turns on the Anti-WallHack system. There are 5 different modes, all working slightly different. However it still bugs a lot, players keep flashing, so mostly switched off on servers.
sv_antiwhskipping	400	0 – 999	This CVAR is used by the Anti-WH system, for modes 1, 2 & 3. Skips anti-wh checks for players with a ping higher than this CVARs value.
sv_banning	1	0 / 1	When set to 1, it turns on Reborn's banning system, place it on 0 to turn it off.
sv_disablechat	0	0 / 1	When set to 1, this will disable server's chat for all players. No message can be send (including public chat, team chat and private chat).
sv_disabletaunt	0	0 / 1	When set to 1, this will disable server's taunts for all players. Everything will be nice and quiet.
sv_filterchat	1	0 / 1	When set to 1, this will switch on the Chat Filter System (used for bad words and such).
sv_kickbadcmd	1	0 / 1	When set to 1, it'll kick players using bad or malicious commands, other player's will be informed when this happens. It's safe to place it at 0, as all these bad commands are nullified by Reborn in the first place.
sv_kickping	500	0 – 999	A proper high ping kick CVAR. Player's with a ping above this value will get kicked from the server.
sv_maxconnperip	3	-1 – 100	This is the maximum amount of players allowed who are using the same IP. This can stop/limit flood bots. Set to -1 to switch off the CVAR.
sv_packetantiflood	0	0 / 1	This should be switched on (1) to protect your server against flood attacks. However, when using software like CI, CK Autokick, Scapp, Foresight or GS Protector, it's recommended to switch this off (0) as it could cause serious issues.



sv_packetfiltertime	2000	0 – 65000	Throttle time window for the Packet AntiFlood system. When Packet AntiFlood System detects that 5 continuously incoming packets arrived to the server faster than packet time delay configured by sv_packetflooddelay , it will turn on time throttle window, and from this point on, it will drop all incoming packets for specified (by this CVAR) amount of milliseconds.
sv_packetflooddelay	50	0 – 65000	This CVAR is used by Packet AntiFlood System to set the allowed time delay between two incoming packets from the same IP address. Value represents milliseconds. When delay between two packets is lower than this CVARs value, they will be flagged as flood and dropped by the patch before they reach the engine. You shouldn't set the value higher than 500 [ms] because this may lead to legit connected players packets to be blocked, and you may have problems with your server not showing on game server browsers or server administration applications (like CI, Foresight, Scapp etc.) kick random players from server.
sv_remotetoolip	127.0.0.1	IPs	CVAR is used by the Packet AntiFlood system. Set the IP which is used for your server monitoring tools (CI, Foresight, Scapp etc.). This IP will be let through as trusted IP and will never be blocked by the system. If you're running it on your PC, fill in your own IP.
sv_protectnames	1	0 / 1	When set to 1, the Name Protection System will be switched on. You can set password for names, so that only the people knowing the password for the name can use it upon connecting.
sv_rebornmaster	109.70.148.37	IPs	CVAR used to communicate with the Reborn Master Server, as GameSpy is down. IP might change in the future.
sv_recoilemulation	0	0 / 1	When CVAR set to 1 it will activate the Anti-No Recoil system. Nullifying the use of No-Recoil hacks. Chance of small recoil bugs when in use.
sv_stufftextdetection	1	0 / 1	Switches on (1) the Stufftext Bypass Detection System. Rare chance of false-positives where it kicks legitimate players who are not doing or using anything. Set to 0 to switch off detection.
sv_updatedelay	65000	1 – 65000	CVAR is used to specify for how many hours the server will check for Reborn updates. As Reborn isn't updating a lot anymore, updating can also be buggy and manual updates are better, set this value high to switch off the autoupdate.



8.5 Mouse Speed

The best mouse speed differs for every person; it's all about how you like to play, and what feels comfortable. The only suggestion I can make here is that you pick a mouse speed where you have enough speed to match your reflexes. Meaning that you'll have enough speed to quickly aim and shoot at everything on your screen. However if your mouse goes too fast your reflexes will fail because your aim simply goes faster than your reflexes. So don't make it as fast that you can spin a 360 with 1 push at your mouse.

You can either change your mouse sensitivity through the [menu \(options\)](#) or through console by typing: [sensitivity](#) (to check what it is) and afterwards: [sensitivity](#) *number* to change it.

My own mouse DPI (dots per inch) = 2000

My own sensitivity = 2.5

8.5.1 Mouse Bugs/Fixes

- If you are unable to turn more than 180° (degrees); open [console](#) or go to your [unnamedsoldier.cfg](#) and type 'seta in_mouse -1'. If you do this via console you need to restart the game and your unnamedsoldier.cfg should NOT be on read-only otherwise it won't work. So safest way is to just change it directly in your unnamedsoldier.cfg and make it read-only again.
- If you happen to have mouse (aim) issues on Windows Vista/7/8, there is a fix that might solve the problem. You can read about it and download it at this link: [CLICK HERE](#) (*The MarkC Windows 8 + 7 Mouse Acceleration Fix.*)

Thanks to [own3mall](#) for pointing out this problem & fix. It will also be included in [Appendix 5](#).

8.6 Keys/Buttons

Keys? Yes keys. The keys (buttons) on the keyboard (and mouse) used to control the game. I must say that most people use all the default keys. However some people have problems with leaning and strafing at the same time, well in the MOHAA option menu you could always change your keys if you find the default keys bothering you (e.g. if the button combination between leaning and strafing is too close for you on the keyboard, create some space for your fingers by mixing the buttons up a bit). You can also change it directly in the [unnamedsoldier.cfg](#) by binding certain keys to certain actions / movements / commands. To find out more about binds and how to use them, check [8.3](#).

In [Appendix 4](#) there is a bind list included with all the default key settings.

8.6.1 MOHAA Key Output

Below will follow a list with all the keys/buttons on a keyboard and mouse and the way MOHAA reads these. This is important if you want to bind or change certain keys directly in the [unnamedsoldier.cfg](#). It's also important to know when creating scripts where you're adding certain key/button presses.

Keyboard/Mouse Button	MOHAA Output
Mouse 1 (Left Button)	Mouse 1
Mouse 2 (Right Button)	Mouse 2
Mouse Wheel Up	Wheel Up
Mouse Wheel Down	Wheel Dn
Scroll Lock	0x00
Tab	TAB
Enter	ENTER
Escape	ESCAPE
Space	SPACE



'	'
,	,
-	-
.	.
/	/
\	\
[[
]]
`	`
;	SEMICOLON
=	=
Backspace	BACKSPACE
Capslock	CAPSLOCK
Pause Break	PAUSE
Up Arrow	UPARROW
Down Arrow	DOWNARROW
Left Arrow	LEFTARROW
Right Arrow	RIGHTARROW
Left ALT	LALT
Right ALT	RALT
Left CTRL	LCTRL
Right CTRL	RCTRL
Left Shift	LSHIFT
Right Shift	RSHIFT
Delete	DEL
Page Down	PGDN
Page Up	PGUP
Home	HOME
End	END
Left Windows	LWIN_KEY
Right Windows	RWIN_KEY
Menu Key	MENU_KEY
Num Lock	KP_NUMLOCK
Keypad 1 (End)	KP_END
Keypad 2 (Down Arrow)	KP_DOWNARROW
Keypad 3 (Page Down)	KP_PGDN
Keypad 4 (Left Arrow)	KP_LEFTARROW
Keypad 5	KP_5
Keypad 6 (Right Arrow)	KP_RIGHTARROW
Keypad 7 (Home)	KP_HOME
Keypad 8 (Up Arrow)	KP_UPARROW
Keypad 9 (Page Up)	KP_PGUP
Keypad 0 (Insert)	KP_INS
Keypad . (Del)	KP_DEL
Keypad +	KP_PLUS
Keypad -	KP_MINUS
Keypad *	KP_*
Keypad /	KP_SLASH



Keypad Enter	KP_ENTER
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
F11	F11
F12	F12

NOTES:

- A-Z & 0-9 on the keyboard is simply the same as MOHAA reads/sees them.
- MOHAA recognized **Scroll Lock** as “**Unknown Key**” and in the config it printed it as **0x00**.
- MOHAA did not recognize the **Print Screen** button.
- MOHAA does not recognize **Mouse 4 & 5** (or other) buttons on newer mice.



8.7 FPS & Ping

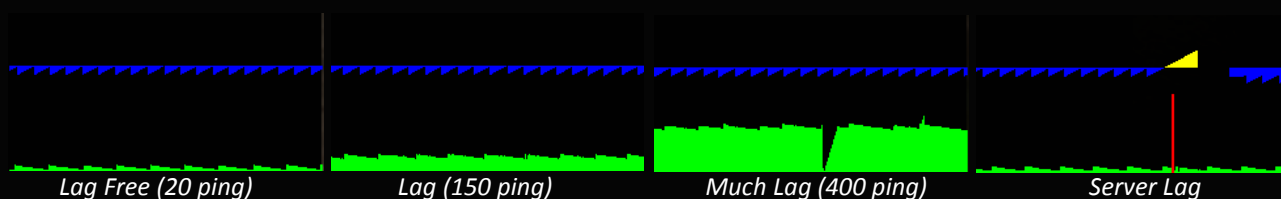
FPS (frames per second) and your ping (network latency) can influence your gameplay by either running smoothly or causing lag. There are steps you can take to avoid (or lessen) lag.

By typing "`fps 1`" in console you can see your FPS in the bottom of your screen (Type `cl_greenfps 1` in console to make the FPS appear in green colour). At 60 your FPS should stay fluid but most players use an FPS between 125 and 250. Even if you can use a higher FPS, this could be totally unnecessary because you are unable to notice the difference and it could increase your chances of lagging. To see FPS type `com_maxfps` into console, to set it to another number, simply type `com_maxfps *number*` (e.g.: `com_maxfps 250`) or change it in your config. To see your lag-spikes, type: `cg_lagometer 1` into console. The spikes will indicate lag (see pictures below).

The following explanation is not 100% correct, though makes it easier to understand, the fully correct explanation is shown in [Appendix 6](#).

Below the blue line you will find your own lag/connection, if it's green your connection is ok, though your ping could be high if the green bar gets higher. If it shows a red line/bar it means the connection with the server is not okay (this happens normally at a map restart for example).

Above the blue line will indicate the server lag, if nothing appears then the server is lag-free, when little or big yellow triangles/bars appear the server is lagging (at a map restart this will show as well).



There are several other CVARS and steps you can take to avoid lag which are listed below. You can change these CVARS in your `unnamedsoldier.cfg` or through [console](#).

snaps "20" (Servers won't allow anything higher.)

cl_maxpackets "30" (Try using numbers between 15 and 100.) (Low value is low ping but less stable and vice versa.)

rate "30000" (This is the highest setting allowed by MOHAA servers. Results may vary with your current connection. Try different values from 18000 to 25000, people with a slow connection might need a lower rate.)

cg_smoothclients "1"

cl_packetdup "1" (Try between 0 and 3, 0 uses least amount of bandwidth, set higher if you have much packetloss.)

(Play a bit with your FPS and maxpackets settings to see what gives you the least lag/lowest ping.)

(In [Appendix 7](#) a document is added and a link to explain these settings in further detail!)

Extra Ping/FPS boosts:

- Put the in-game settings lower (texture settings, resolution etc.)
- Uninstall all programs/services that you don't use or need. This will eliminate various auto-updates.
- Perform a full virus/adware scan. (& Make sure you're not using more than 1 virus scanner!)
- Check options/preferences in all of the applications you use and see if you are able to disable application auto-update.
- Disable Windows auto-update.
- Disable Firewall.
- Disable as many services/programs as you can.
- Disable as many startup services as possible (through [msconfig](#)).
- Make sure you're not running any downloads/uploads or download services (e.g. torrent).
- Download CCleaner and run it to delete a lot of 'crap' from your PC.



8.7.1 Ping Information

Ping is one of those terms that you'll see and hear about a lot in online gaming. It's a very important term as it basically determines how much or how little lag you have whilst gaming.

The higher the ping, the more a player will lag. This means that when you have a high ping, the speed with which the server recognizes actions that you perform is slow. An example would be:
You shoot at a player, yet the bullet fired 3 seconds after you've clicked your fire button.

If you have a low ping, the server recognizes your actions in less than a second, to use the same example again:
You shoot at a player, and the bullet fired (almost) instantly after you clicked your fire button.

Your ping refers to the network latency between you and the server you are playing on. This is mostly decided by the network distance between you and the server. As it takes longer for your connection/data transmission to reach the server, it also takes longer for every action you make to reach the server. So if the server is in America, and you're playing from Europe, your ping will most likely be above 100 already and will cause a lot of problems (lag). This is not due to geographical distance but the distance between networks and the time it takes to reach the other network. The more your connection is rerouted, the longer it takes to reach the server's network, and the higher your ping will be. Although geographical distance is not the cause, it does give a good correlation and indication of high(er) pings, as it most of the time means a greater network distance.

In the next table you'll find some ping values and whether they are considered low or high. These are rough values ofc.

Ping Value(s)	Type	Information
0	Perfect Ping	This type of ping is only possible when the server you are playing on is run on your own PC (thus playing LAN).
1 – 30	Very Good Ping	A ping in this range is simply very good and everything runs smoothly.
30 – 50	Good Ping	In this range, everything still runs smoothly, it might feel a little different than a lower ping, but you won't have issues.
50 – 80	Medium Ping	Pings in this range aren't really good pings. You'll start to notice delays in your shots and movements and others can sometimes see you move erratically.
80-130	High Ping	Playing with a ping like this is very annoying for you and the other players. Your game won't run smoothly and you can have big delays in shooting and your movements look very erratically. Sometimes it looks like you're teleporting due to the delay.
130 – 160	Very High Ping	Your lag is even worse and everything you do is delayed (for you and your opponents), no fun gaming.
160+	Extremely High Ping	Playing with a ping higher than this is just impossible. Nothing you want to do seems to work.
999	Timed Out / Pinged	Player timed out (e.g. by game crashing or internet).

You can lower your ping somewhat via several options, but unless you physically move closer to the server's location, the difference will not be too big. However you can try the following things to lower your ping:

- Switch from wireless to cable internet (will result in a faster and more stable connection).
- Change ISPs (different ISPs could have a faster & more direct connection to the servers you play on).
- Use internet via fiber-optics (if available) (will result in a faster connection).
- Get a faster internet connection (helps somewhat ofc. but not too much).
- Tweak your in-game CVARs (see [8.7](#)) (also only helps a little bit).



Now of course, when you have a high ping and are playing against low pinged players, they will have a faster reaction time and thus can shoot you before you shoot them (unless you try and pre-fire all your shots to compensate for your delayed shots). HOWEVER, having a high ping can give you an **unfair advantage** as well. It takes a while for your actions to be seen by the server and thus even longer before it reaches other players. This means that high pinged players seem to 'teleport' a lot for low pinged players and they can't seem to hit the high pinged players. The high pinged players can literally dodge shots, because the server is sending the location of the high pinged players too late (delayed). This is why most servers have a high ping kick, to avoid an unfair playing field.

8.8 Scripts

Scripts are text (config) files created to make a certain activity easier to do/accomplish.

Most scripts are used for cheating or for gaining an unfair advantage so I won't go into much detail about how they are used (however some scripts are used for fun). Scripts can make a big variety of actions/movements simplified by the press of 1 button (by using aliases and binding them).

A small example will follow below, for instance when I want to act like an admin on a server to warn people not to hack:

```
//Scriptname: console.cfg
//alias <alias name> "name console; say <Yourmessage>; wait 2; name <Yourgamename>"
//bind <key> <alias name>

//Remember to remove the <>'s, after choosing your bindings.

alias name1 "name console; say Cheating will get you kicked; wait 2; name Shadow"
bind K "name1"

//To activate the bind: In-game, open console and type: exec console.cfg
```

The above script will make you automatically (when you press "K" on your keyboard) change your name to console, say the above message and change your name back to your original after the message. Thus no one will know it was you because the name change happened too fast.

8.9 Screenshots

By default you can make screenshots in-game by pressing **F12** (you can change this in your [bindlist](#)). Your screenshots will then appear in your [mohaa\main\screenshots](#) folder. If a server forces screenshots on you, they'll be made automatically for you and will be located in the same folder as your regular screenshots. The screenshots are made in [.tga](#) files which can't be opened by the normal windows programs, you'd need [QuickTime](#) or [IrfanView](#) to view these screenshots (suggested is to use IrfanView as QuickTime doesn't allow for scrolling through screenshots, you'd have to open them 1 by 1).

To change the extension of screenshots you can open them via [IrfanView](#) and save them as [.png](#) files, thus making them visible for regular programs like paint and you can now place them on sites as well.



8.9.1 Unable to Locate Screenshots

If for some reason you make screenshots, or a server makes screenshots of you (to check if you're clean) but you can't find them in your [main\screenshots](#) folder; they might be placed in a different location.

For **64bit** OS, go to:

`C:\\Users*Name*\\AppData\\Local\\VirtualStore\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\screenshots`

For **32bit** OS, go to:

`C:\\Users*Name*\\AppData\\Local\\VirtualStore\\Program Files\\EA GAMES\\MOHAA\\main\\screenshots`

If they are also not located here, they could still possibly be somewhere else on your PC. Try the following options to locate them:

1. Check out chapter **8.11** to find out how to locate hidden files on your PC.
2. Use your PC's search option to search your hard drives for `'tga'` files. If you find any, that's the folder you'll need to be in.

8.10 Passwords

If you want to lock/password your server because you're playing a clan war or just want some privacy with people, or even just for testing purposes, you can do so via the following ways:

1. Place private slots on the server, these private slots start from client 0 and only people with a password would be able to use them. If you set the amount of slots (clients) to match the amount of slots the server has, it will be completely passworded. However you can also just password a few slots (e.g. for admins).
 - a. Place `seta sv_privateclients` on `"20"` (or however many slots the server has, or however many slots you want locked) in the `server.cfg`.
 - b. Place `seta sv_privatepassword` on `"password"` (choose one) in the `server.cfg`.
 - c. Save the `server.cfg` (in the server's main folder) and restart the server. Now only people that know the password can connect.
2. You can also lock the entire server (and not the slots) in one go via the following way:
 - a. Place `seta password` on `"password"` (choose one) in the `server.cfg`.
 - b. Save the `server.cfg` (in the server's main folder) and restart the server. Now only people that know the password can connect.

With both options, to be able to connect to the server, you should do this:

- Connect to the server (it'll say it's passworded).
- Open `console` and type in `"password test"` (in this example the actual pass is `test`, but this can be whatever password has been chosen by the admins).
- Press `Enter`
- Now type in console: `"restart"` and you'll join the game.

To place a (new) rcon password on the server, do the following:

- Place `seta rconpassword "test1"` (in this example the actual rconpass is `test1`, but this can be whatever rcon password has been chosen by the admins).
- Save the `server.cfg` (in the server's main folder) and restart the server. Now only people that know the rcon password can use it.

To use the rcon, when in game; Open `console` -> Type in: `rconpassword test1` -> Press `Enter` and now you can use the rcon commands.



8.11 File Extensions & Hidden Files

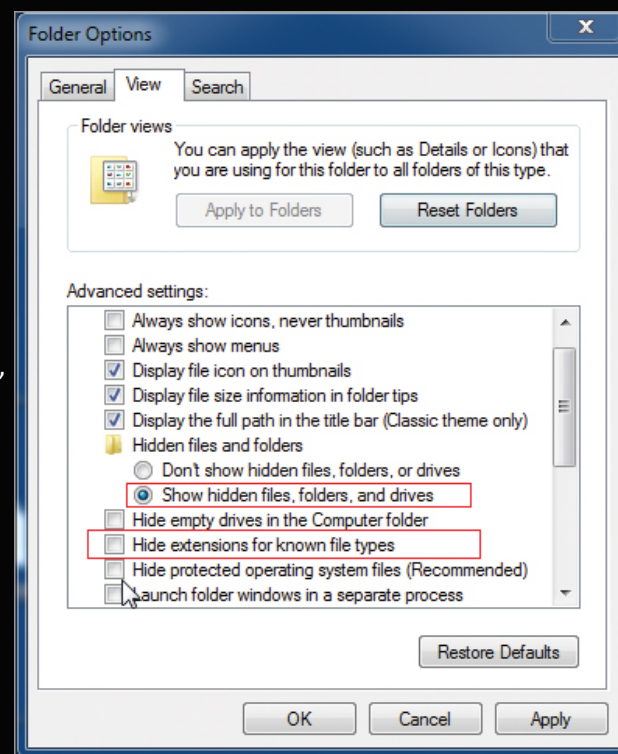
Some PC's/laptops have file extensions hidden (thus you cannot see what kind of file type a file is). For example a word document would be 'test.doc' but without the extension, you would just see 'test'. Next to this issue, some files might also be hidden, which means you cannot see or access them directly. Below you will be shown how to fix these issues.

Windows XP, Vista & 7

- 1) Select [Start](#)
- 2) Go to [Control Panel](#)
- 3) Go to [Appearance and Personalization/Themes](#)
- 4) Go to [Folder Options](#)
- 5) Go to the [View](#) tab
- 6) Untick/uncheck 'Hide extensions for known file types'
- 7) On the same tab, locate 'Hidden files and folders'
- 8) Below that, select 'Show hidden files, folders, and drives'
- 9) Press [Apply](#) and then [OK](#) and you're done.

Windows 8

- 1) Go to the [Start Menu](#) screen
- 2) Type '[Control Panel](#)' in the search bar
- 3) Click on '[Control Panel](#)' below the Results
- 4) If you are in '[Category](#)' view, click the dropdown menu
- 5) Choose either [Large icons](#) or [Small icons](#)
- 6) Follow step 4 to 9 from the [Windows XP, Vista & 7](#) list.



It should look like this ↑

If for some reason you are still unable to find some of the files that should be in your MOHAA folder (e.g. [unnamedsoldier.cfg](#), screenshots or [.pk3](#) files), then check the following:

- For **64bit** OS: Go to [C:\\Users*Name*\\AppData\\Local\\VirtualStore\\Program Files \(x86\)](#)
- For **32bit** OS: Go to [C:\\Users*Name*\\AppData\\Local\\VirtualStore\\Program Files](#)
- Check if your [EA GAMES\\MOHAA](#) (or similar) folder is located here.
- If the files are here, this is the place you will need to go each time if you want to look at or change anything from those files.

It's also possible your OS (Vista, Win7 or Win8) has '[Compatibility Files](#)' in the toolbar of your main (next to '[Organize](#)', '[Views](#)' etc.). Click on this to view any hidden folder.

Normally all the important files should be located in the following locations (for **64bit** OS):

MOHAA.exe	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA
Pak1 till 6 (or 7)	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main
Custom maps (.pk3)	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main
Custom skins (.pk3)	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main
Custom mods (.pk3)	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main
Screenshots	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\screenshots
Demos (recordings)	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\demos
Unnamedsoldier.cfg	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\configs
Saved SP missions	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\save
(Custom) Sound files	->	C:\\Program Files (x86)\\EA GAMES\\MOHAA\\main\\sound

NOTE: For **32bit** OS, remove the '[x86](#)' in the locations above.



8.12 PK3 & SCR Files

MOHAA exists out of several PAK files with the extension “pk3”. Most maps, skins, mods etc. are made by using these extensions, thus making them readable by MOHAA.

To open these files you either need [WINZIP/WINRAR](#), [7-ZIP](#) or [Pakscape](#). It is recommended to use Pakscape as you otherwise have to convert the .pk3 to .zip/.rar and it's not really user-friendly either. Pakscape allows you to open the pk3 and do anything with it normally.

(You can just drag the pk3's in pakscape to open.)

(Pakscape is available in [Appendix 13](#).)

To open “scr” files you either have to rename them to .txt, or open them in WINZIP/WINRAR/7-ZIP and simply double click them but there is also a simpler way that will allow you to open them directly whenever you want (for [Windows 7](#)).

- 1) Go to [Control Panel](#), search 'type'
- 2) Click on "[change the file type associated with a file extension](#)"
- 3) Find extension .scr and select it
- 4) Click '[change programs](#)' and select [notepad /notepad++](#)
- 5) Click [ok](#), you're done! They will now open directly in notepad.

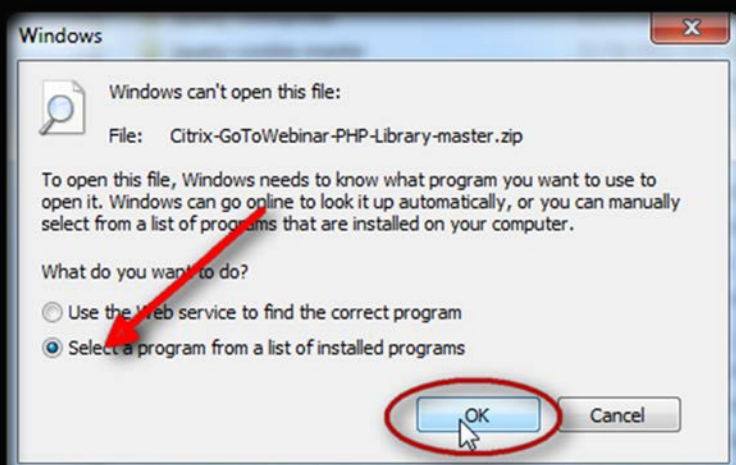
(Source: Sor)

Files related to MOHAA with the following extensions can be renamed to .txt to view/edit them, you can also double click on them (when in [Pakscape](#); drag them to your [desktop](#) first before double clicking, otherwise you can't save after editing) and select a program to open them with:

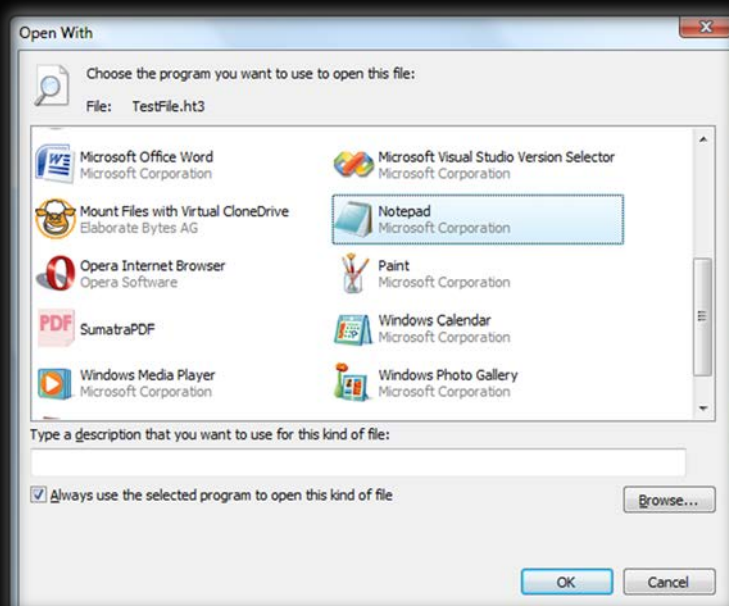
.urc .cfg
.tik .log
.shader .st

Selecting a program to open these files with will make sure they will open like that forever, thus no issues with renaming the files every single time. To do this, follow the following steps:

1. Open file by double clicking it.



2. Check the bottom box/circle and press OK.



3. Choose Notepad in the list
4. Check the bottom box and press OK.



When the above options fail to work or are not available, there are a few more things you can try.

In **Windows XP** you could try the following:

1. Click **Start**, and then click **Control Panel**.
2. Click **Folder Options**.
3. Click **File Types** tab in **Folder Options** window and the full file types and their association will be listed.
4. Click **New** and type the **File Extension** in the box and then click **Advanced**.
5. Choose an association for the file type.
6. Click **OK** and then Click **Close**.
7. Open the file again.

For **Windows 8**, a tool has been made (by Swagel) to easily change the default program to open **.scr** files with, via the click of a button. It also has the option to create a new **.scr** file.

The file is available in **Appendix 13**. You can also download this tool here:

<http://www.mohaaaa.co.uk/AAAAMOHAA/content/scr-file-opening-changer-win-8>

More information about this tool can be found at the following links:

<http://www.modtheater.com/threads/open-a-scr-file-with-a-text-editor-of-your-own-choice.39991/>

http://www.modtheater.com/threads/update-for-openscr_with_exe.39995/

(ModTheater is down at the moment, but it might go back up again at some point.)



8.13 Coordinates

Coordinates in MOHAA can be used to teleport or spawn objects/players for different purposes. If you ever need to get coordinates of certain locations, load the specific map in single player mode, go to the location you want to have coordinates of, open console and type in: "[coord](#)". This will give you the coordinates. In [Appendix 9](#) you can see a small document about how these coordinates work.



Next to '[coord](#)', you can also use '[whereami](#)' to look up the locations. With [whereami](#) you need to keep console constantly open and every move you make will add new coordinates in your console. To use the [whereami](#) command you need to do the following:

- Set [developer](#) on [1](#) in console.
- Set [whereami](#) on [1](#) in console.
- Make console smaller or move it to the top, click on your screen again and start walking.
- Set [ui_minicon](#) on [1](#) if you'd like to use the mini rcon which would work perfectly here.

If you'd also like to see the position of your view you need to use '[viewpos](#)'.

By typing [viewpos](#) into console you'll be able to see your view position.

If for some reason you try to spawn something by using these coordinates and the object becomes stuck in the ground, you need to get a coordinate that is a bit above the ground (so jump on that spot and get the coordinate while you're in the air, or go to spectator mode and fly a bit higher on the spot and get the coordinate).

Most errors of spawns or teleports being too low are because they used [viewpos](#) instead of [coord](#) (because [viewpos](#) gives results in console in MP, whereas [coord](#) only gives them (in MP) in the server console log). Also when doing teleports, set the [trigger origin](#) as follows; round the **X** and **Y** to the nearest whole number. ALWAYS round **Z** up, never down. Take care to round up correctly when **Z** is negative. Then set the teleport visual object (welding spark, etc.) to be the results you got in the previous sentence with **Z+20**. (Source: Todesengel)

Useful posts on [coords](#), [whereami](#) & [viewpos](#) can be found in [Appendix 9](#).



8.14 Intro (Video) when Starting MOHAA

When you start/execute MOHAA (normally, not when directly joining a server), it will show you some intro videos, which can be quite long and annoying.

You're not able to skip the normal videos with the 'Escape' button. Only the last video can be skipped with the 'Escape' button.

Thankfully there is a solution to skip the videos. You have to edit your MOHAA shortcut (most likely on your desktop).

Click with your right mouse button on the shortcut -> click on properties -> go to the shortcut tab. Now where it says 'Target' it should give you the current install location of MOHAA. On a default installation this would be: "C:\Program Files\EA Games\MOHAA\mohaa.exe"
Make sure the " " symbols (quotation marks) remain in front & behind the location as shown above. Behind this you need to type: +set cl_playintro 0, afterwards press Apply and OK. (Now it works.)
This is how the target will look like (if you have the default install location you can just copy and paste the following line): "C:\Program Files\EA Games\MOHAA\mohaa.exe" +set cl_playintro 0



8.15 DMFLAGS

DMFLAGS or **Death-match Flags** are numerous gameplay settings; each of these settings corresponds with a value (number). Any admin can set these on their server.

These settings come from the Quake 3 engine, although most of them have been disabled in MOHAA. The following settings with corresponding values have been found on the internet:

DMFlags			
Setting/Option	DMFlag Number	Setting/Option	DMFlag Number
No Healthpacks	1	Old Sniper Rifle	524288
No Powerups	2	German Shotgun	1048576
Weapons Stay	4	Allow Old Map Mines	2097152
No Fall Damage	8	No Machineguns	33554432
Instant Items	16	No Rifles	4194304
Same Level	32	No Rockets	67108864
No Armour	2048	No Shotguns	134217728
Infinite Ammo	16384	No Snipers	8388608
No Footsteps	131072	No Sub-Machineguns	16777216
Allow Lean	262144	No Landmines	268435456

The **green** values work with Allied Assault, Spearhead & Breakthrough, the **red** values work with only Spearhead & Breakthrough and the **orange** values only work for Breakthrough.

Note that some DMFlags might not work in any of the games and are simply broken.

To use dmflags you'll either have to enter them through console or place them into the server's config. Example will follow below (in this case the value '8' means no falling damage to player):

console: `rcon dmflags 8`
server.cfg: `seta dmflags 8`

If you want multiple of these gameplay settings to work simultaneously you will have to add up the corresponding numbers and set that number as the current dmflags.

If you want to have infinite ammo and no falling damage you add up the above numbers

$8 + 16384 = 16392$ -> `seta dmflags 16392`

A script that adds up the numbers for you can be found [HERE](#).

Now luckily people have found an easier way to use these 2 settings (the only 2 that work in AA).

If you set **dmflags** to **-1** it also makes it so that you have no falling damage + infinite ammo.

Returning the value to **0** makes the server default again, with no extra settings.

Seeing as the removal of health packs (**dmflags 1**) only works with Spearhead/Breakthrough, there is a command for Allied Assault that will remove health packs and weapons as soon as a player dies.

Console: `rcon g_droppeditemlife 0`
Server.cfg: `seta g_droppeditemlife 0`

The **dmflags 8** or **-1** is mostly used when you're trying to do tricks (jumps, roofing, bug spots etc.).

This is because you will not sustain any fall damage and thus you won't die. The unlimited ammo is also useful for grenade tricks (unlimited grenades) and any form of target practice.



8.16 Colour Codes

Another function from the Quake 3 Engine (besides [DMFlags](#)) is the colour codes, which has also almost completely disappeared in MOHAA. In Quake 3 you could use these colour codes in player names and server names and everyone could see the colours in every server list and in every game.

Unfortunately in MOHAA, these colour codes are only visible in programs such as [X-Fire](#) or [GSC](#). With the use of X-Fire you can check out a server and see some server names with different colours as well as player names with different colours. Unfortunately when going in any game, these colours will disappear and everyone will have the same default colour for their name.

It is possible to use multiple colours in the same (player/server) name.

A total of 8 different colours can be used in a name; these colours are shown in the table below.

Code	Colour	HTML Colour	Preview
^0	Black	#000000	Shadow
^1	Red	#ff0000	Shadow
^2	Green	#00ff00	Shadow
^3	Yellow	#ffff00	Shadow
^4	Blue	#0000ff	Shadow
^5	Cyan	#00ffff	Shadow
^6	Magenta/Pink	#ff00ff	Shadow
^7	White	#ffffff	Shadow

To make your name or part of your name coloured, a code must be entered in front of the name or part of the name that you want coloured. This code will indicate the colour you want. In the table above all codes are shown, accompanied by the colour they represent.

To change the colour of your **player name**, you can choose one of two options:

In-Game:

- Go to [Multiplayer](#) -> [Multiplayer Options](#) -> [Name](#)
- Change your name

(If your `unnamedsoldier.cfg` is set to Read-Only, these changes will not be saved after you leave the game)

Unnamsoldier.cfg:

1. Find '[seta name](#)' in your `unnamedsoldier.cfg`
2. Behind it you'll find your current player name, change it

To change the colour of your **server name**, do the following:

1. Find '[seta sv_hostname](#)' in your `server.cfg`
2. Behind it you'll find your current server name, change it

Examples

Name

- ^2KingShadow
- ^1King^2Shadow
- "^5[(UW)] ^1King^2Shadow"
- "^3Public ^6V2 ^1SO ^5Server"

Preview

KingShadow
KingShadow
[(UW)] KingShadow
Public V2 SO Server

REMEMBER: use quotation marks (" ") in the front and back of your name when you have spaces in your name, if you fail to do so, your name will not be shown completely but just partially. The last 2 examples above show how it needs to look when using spaces in your name.



8.17 Client Qconsole.log

If you're ever required to create a qconsole.log from yourself in-game or want to check out any errors you might have in-game then below it will show you how to do so.

You'll have to put developer mode on and logfile on, this can be done either via console or via your unnamedsoldier.cfg (I suggest doing it via console so you'll have more control over the logging).

Console:

1. Type: `developer 1` (press enter)
2. Type: `logfile 1` (press enter)
3. Do what you have to do (play the game, change settings, wait a few minutes)
4. Type: `logfile 0` (press enter)
5. Type: `developer 0` (press enter)

Unnamedsoldier.cfg:

- Add: `seta developer 1`
- Add: `seta logfile 1`
- Remove settings when you're done.

You can choose between several developer mode options and logfile options (for both client & server qconsole logs). These will be explained below.

8.17.1 Developer Mode

- `developer 1` *(Will show relevant debug and errors)*
- `developer 2` *(Same as 1 + every cvar change, generates HUGE amounts of data)*
- `developer 3` *(Same as 1 + reports all engine debug)*

8.17.2 Logfile Options

- `logfile 1` (Buffered: *logs are not written to disk directly, they're temporarily buffered in memory and written to disk later.*)
- `logfile 2` (Continuous: *logs are written to disk when the event takes place. After a restart a new log will be created, old logs will be lost.*)
- `logfile 3` (Append: *Same as 'logfile 2' but after a restart, the new loglines are appended to the previous log.*)

All these CVARs and values can be used for the Server's qconsole.log as well. Please check out Chapter [9.9 Server Qconsole.log](#) for more information.



8.18 Patches & No-CD Crack

To play MOHAA you will need a No-CD crack and the 1.11 patch (available in most languages). It's best to first install the 1.11 patch and afterwards the No-CD crack (the latter is simply replacing your MOHAA.exe with the one provided by the crack). For Spearhead, make sure you install 2.11 first, before you install 2.15.



All patches & cracks can now also be found on the AAAA site: [CLICK HERE](#).

A completely (English) patched version, with fixes to run on modern machines of Allied Assault, Spearhead & Breakthrough can be found [HERE](#), it's called [MOHAA Revival](#).

NOTE: Be aware that it's possible that some links may stop working due to websites closing down.

Allied Assault

- 1.11 UK/US patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 1.11 French patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 1.11 Spanish patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#)
- 1.11 Italian patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 1.11 Dutch patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 1.11 German patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 1.11 Korean patch: [MIRROR 1](#)
- 1.11 Japanese patch: [MIRROR 1](#)

- 1.11 Linux patch: [MIRROR 1](#) – [MIRROR 2](#)
- 1.14 Mac patch: [MIRROR 1](#) – [MIRROR 2](#)

- 1.11 No-CD Crack: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)

Spearhead

- 2.11 patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)
- 2.15 patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)

- 2.15 No-CD Crack: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#)

Breakthrough

- 2.40 patch: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#) – [MIRROR 4](#) – [MIRROR 5](#)

- 2.40 No-CD Crack: [MIRROR 1](#) – [MIRROR 2](#) – [MIRROR 3](#)



9. Anti-Cheat/Crash

9.1 Anti-Cheat Programs

AlphaMAC

The newest Anti-Cheat (after MOHAAC went down). Created by RyBack. This new Anti-Cheat will also force screenshots on its players and record demos and upload these to the website. As well as scanning the person for any unwanted settings and files (<https://mohaamac.com/>).

AlphaMAC

DMW

The most known anti-cheat software out there for MOHAA. (Un)fortunately no one uses DMW anymore seeing as it is as good as dead. CB has also lost its faith in DMW (they abandoned the use of it in the ladders), due to several reasons such as a dodgy new banning policy and corrupted DMW Staff Members. Though it's believed it was the best method to stop cheaters, there were still bypasses, but hardly anyone was able to get their hands on them. It was used for publics and wars, made screenshots of everyone and kicked players who were not clean.



UAC3

A newer anti-cheat software; which is believed to not nearly be as good as DMW, though it's always better than nothing. It's mostly used for wars, since you have to fill in an id, which all players in the server have to fill in to log on to UAC3. It will scan players, but will not kick them from the server if they are caught cheating, though after the war you will be able to see if anyone has cheated by checking their status in the match id you used. UAC3 does take screenshots as well, though it is pretty bugged as Windows 7 Ultimate (64-bit) users only get black screens, some even grey or white.



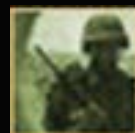
Foresight

Foresight is an anti-cheat that forces several CVARS onto players which keeps them from turning their cheats on. It will also create a foresight.cfg in your MOHAA config folder with some additional binds added to your game. This Anti-Cheat is of course easily bypassed, though none the less it will stop some newbie cheaters. It is hardly ever used anymore.



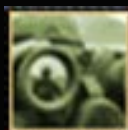
Missionary

An old anti-cheat which only lets you play with an out-of-the-box game on missionary servers. It will scan your MOHAA files and will only allow you to play with the stock game. If the server uses custom maps/skins you will be given the option to download these when trying to enter the missionary server. I personally never played with this anti-cheat and I have never heard much about it, just wanted to let you know that it exists.



Reverend

Same as Missionary, only lets you play with an out-of-the-box game. Match Watch needed on server.



Pandora

Also an old anti-cheat, which is kind of similar to Missionary/Reverend.



Delator

A simple and also old anti-cheat. Scans for unwanted/cheat skins and cvars that might be used to cheat. It states that is also scans the binaries to see if they're stock. A server scanner / admin tool is also included. Works against some of the newbie hackers, kind of the same function as MOHAA: CI. Also includes map- & crash-fixes.



MOHAAC

MOHAAC is a recent anti-cheat. It's kind of the same as the old Missionary and Reverend. A match ID is needed to get scanned. You can also auto-download any allowed custom maps on a specific match ID (server). It seems to be a lot better than the old anti-cheats, the program makes demos and screenshots and forces you to upload them onto the site. Any infraction will be automatically posted onto the site as well, where people can see what you did wrong (most of the time it's a harmless infraction, not a cheat). **MOHAAC IS NOW ALSO DOWN.**



MOHAAX

Another new Anti-Cheat, made in the Spanish language. I'm not sure how this one works, but if you want to try it out, give it a go! (<http://www.mohaax.org/>).

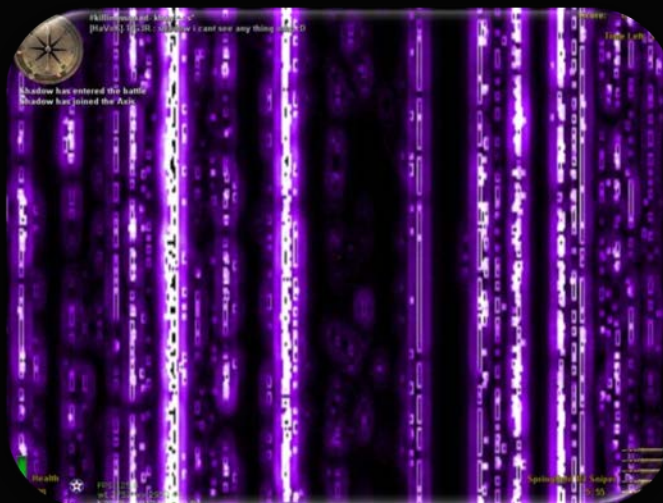




9.2 Anti-Cheat Patches/Mods

Anti-Cham

This is a simple mod that has been made to stop newbie hackers in their tracks. Most chams will get blocked when this mod is on the server (it will give the hacker a coloured screen, making it impossible for him to see anything, thus having to leave the game). This was made by Contex and further developed by myself. I will not put here how it works, but most people know. It is easily bypassed as well, but it's better than nothing.



An example of a cheater his screen when using a specific cham.

(xNULL) MOHAA 1.12 Reborn Patch

A team of dedicated people worked and are working on a patch that will render wallhacks (and other hacks) useless, thus there won't be any need to scan someone's PC anymore, cause the hacks will simply not work. They've come a long way and have already finished a lot of things. They have several options (different ways) of blocking wallhacks, though the only negative part of this is that the anti-wallhack is a bit buggy, in the sense that when players come behind walls/objects/corners they appear a bit later than normal. They are still working on perfecting this of course. Next to the anti-wh they also have a very good working anti-norecoil, anti-STWH (shoot through wall hack) and stufftext detection. The patch also includes crash fixes which will protect the server against every server crash method currently known.

To see which 1.12 Reborn settings and version the server is running, type [patchver](#) into console.

The new client-side patch of 1.12 is in the making. Unreleased versions have already been tested and were working quite well. This includes better ways of stopping chams and wallhacks (from simple pk3's to opengl and injection based hacks). It will include an aimbot detection later on and an auto-download function for maps, mods etc. (When maps are running custom maps you won't have to manually download them, just join the server and they will get downloaded).

9.3 Anti-Crash Patches/Mods

There are several different methods of crashing (or attacking) a server. I won't go into detail on how this works, however if you want to protect your server, make sure you download the 1.12 (Reborn) patch. You can turn off all anti-cheat features if you don't like them, but all the possible crash methods and attacks will be fixed. There is no other patch out there that comes even close to fixing this many server crash/attack methods.



9.4 Spotting Cheaters

How to catch a cheater? This could be really easy but also really difficult. Of course people who are shooting through walls, shooting from their back and people that are using an aimbot (basically spinning 360s and hitting everything) are really easy to spot. The problem however lies in catching wallhackers and people using 3rd person. When someone is using 3rd person, they mostly hide their head and partially their body behind a door/wall, while they move just far enough so that their gun is able to shoot you, while their head is still behind a wall/door (so in theory he should be unable to see you). They also tend to camp and avoid close combat. Wallhackers on the other hand are not as blatant (obvious) as 3rd person users. Some newbie wallhackers are of course easy to spot, they literally keep looking at every wall, and their aim is following the movement of the opponent. Though unfortunately there are also wallhackers that act like they're not hacking. If you suspect someone you have 2 ways of checking to see if they cheat (although sometimes you just can't be sure).

1. Is in spectator mode, and keep listening very carefully to the sounds and watch if your opponent seems to know something that he shouldn't know. Though good players don't rely on sound alone, they could have seen their opponent before, someone could have said it to them or they simply are experienced enough to expect people in certain locations. So take that in mind when spectating someone, there can be various reasons how a suspect may know where his opponent is besides hacking. Unfortunately I myself have experienced enough admins who banned me simply because they thought I was hacking, now of course you shouldn't pay any attention to it when you're not hacking, but it is annoying however if it keeps happening, simply because you just enjoy the game and want to have some fun but people keep spoiling it for you. **So admins, be aware! Although the game is kind of dead, there are still some players who have the skills that even surpass hackers.**
2. My favourite way of spotting a hacker is playing against them. This might seem odd, because you would assume a spectator sees more, but I disagree on that. When you suspect someone of cheating, you can pick locations to sit and see if they'll pre-fire you on the spot (though be sure that you didn't make any sound and that there shouldn't be any way that the person could know you are there, thus pick locations that normal persons will never sit). Secondly when facing them head-on you have to rush them. Because even when a hacker wants to act like he's not hacking, he keeps seeing his opponents so he simply wants to press his fire button every time. So whenever you rush him (or simply are moving forward to the opponent's location) be sure to not blindly run past every corner, wall and/or door. Instead, act like you are going to run past a corner, wall or door but stop at the last moment, because hackers see you running and assume you will simply keep running and thus they will shoot when they think you will be visible. If you keep rushing hackers and dodging their shots, they will get irritated, they will get killed and they will leave eventually. The above tip also counts if you know where the hacker (or simply your opponent) is, just try to act like you don't know (so don't go walking slowly and camping, just run and make sound but stop before running around a corner, wall or door, just act like you are passing, thus only showing your gun or arm), which gives the hacker (or a normal opponent) confidence and the idea that he can just shoot you down once you walk in his aim (though he will shoot and miss of course).

There are a few tactics you can try out against aimbotters (which also work for basically all other hacks). As aimbotters automatically shoot at body parts, you need to bait them out by showing a tiny bit of your body and quickly step back again, making them shoot and probably miss (or at least not fatally wound you). After this you know their location and you can quickly shoot back. You can also wait till they reload (keep baiting them to shoot, or let him shoot at teammates). Also, when an aimbotter is fighting multiple people, you can quickly sneak in and shoot him as well, an aimbot can't keep up with too many enemies and their auto-aim will keep switching around.



9.5 Auto-Kick Programs & Banning Systems

There are several different autokick programs out there, maybe even more than I'm aware of. But I will give a short explanation about the 4 most known autokicks. These programs can do many more things than just kicking & banning (like adding server messages) but I will not go in detail to this. I suggest you google more about it or look in the program yourself to find out what it all can do.

9.5.1 MOHAA: CI (Counter Intelligence)

First of all I suggest everyone using this to read the "[MOHAA Counter Intelligence.pdf](#)" included. This autokick also includes a small anti-cheat option which will catch some newbie cheaters when they're using some old hacks. Plus the option I love in MOHAA:CI is that you are able to see which skin everyone is using through the scanner (it uses a 'dumpuser' on every player and records it). Next to this you can of course kick, ban and use some other options to control your server. A ban will make the players game crash instead of being simply kicked, which is more annoying to the players.

The server/scanner logs are located in [MOHAA CI\CIFiles](#). Logs are dated, in the bottom of the logs it will show the kicks of the day (cheats, banned ip, high ping, bad skin, doubled name, bad word in name etc.)

Example of a caught cheater in the logs:

[21:33:35 Automatically Kicked \[e\]H|^.-khan/62.114.168.181 - for modifications/cheats installed \(S1\)](#)

In this case the cheat code 'S1' means the player was using a hacked version of cg_3rd_person.

A list of all MOHAA CI cheat codes are located in [Appendix 10](#).

As well as CK Autokick you can kick/ban players that are currently playing on the server when MOHAA CI is running by just clicking on the players and clicking on kick/ban. MOHAACI also includes a high ping kick and a custom skin kick option.

If you go to the location where MOHAA CI is installed, the following logs might be useful:

- [authbt.txt](#) (Authorized skins for Breakthrough, add/remove any you want)
- [authpa.txt](#) (Authorized skins for Pacific Assault, add/remove any you want)
- [authsh.txt](#) (Authorized skins for Spearhead, add/remove any you want)
- [authskins.txt](#) (Authorized skins for Allied Assault, add/remove any you want)
- [badnames.txt](#) (Add words that you want to have auto-kicked, like offensive or cheater names)
- [bannclan.txt](#) (Add clan tags you want to have auto-kicked)
- [bannedIP.txt](#) (Shows all banned IP's, you can add/remove any you want)
- [breason.txt](#) (Shows IP, name, date & time of players kicked, log has NO effect on kicking players)
- [cheats.txt](#) (Shows list of cheats, you can crosscheck this list with caught cheats in CIFiles)
- [immuneIP.txt](#) (Shows all IP's that are immune to kicking (admin IP's), remove/add any you want)
- [serverlog.txt](#) (Shows a summary of amount of players kicked/banned for the day)
- [unauthorized.txt](#) (Shows a list of unauthorized skins, add/remove any you want)

You can choose the ways you want to kick people in the [Preferences](#) in the MOHAA CI scanner.

For example: You can choose either to kick people by the unauthorized skin list (will only kick the skins in that list) or by authorized skin list (will kick everyone using a skin that's not in that list).

You can also set the high ping kick here.



9.5.2 CK (CrowKings) Autokick

Also 1 of the most known autokicks, it used to work only on Windows XP but an update for Windows 7 has come out. You have some more options than on MOHAA:CI and the server log and banlist is very accurate and especially the serverlog can come really in handy when you need to search through the server history.

When you are running CK Autokick you can obviously kick and ban players that are currently playing on your server. If you would like to check or add bans without running the program, or without the players being in your server, you can check the logs.

If you go to the place where you installed CK Autokick there are several logs present and useful:

- [badnames.txt](#) (Add words/tags that you want to have auto-kicked, like clan-tags or offensive names)
- [banned.txt](#) (Shows all banned player names, you can add/remove any you want)
- [bannedIP.txt](#) (Shows all banned IP's, you can add/remove any you want)
- [immuneIP.txt](#) (Shows all IP's that are immune to kicking (admin IP's), remove/add any you want)
- [ReasonBanned.txt](#) (Shows IP, name, date & time of players kicked, log has NO effect on kicking players)
- [servlog.txt](#) (Shows frequent rcon status checks on server and thus all names & IP's of players in server)

9.5.3 Scapp-Host

The current upcoming autokick is scapp-host, which has been created by JoTo. I myself had the privilege of testing it out and coming up with some suggestions and ideas for it. It works on Windows 7 no problem and it is a really modern and advanced autokick program. It can log everything you want, scan several servers at a time, the banlist is very sophisticated (you can add reasons, other names, IP's etc. to 1 person who has been banned) you can even see which countries the players are from and ban countries if it would ever be necessary. It includes a high variety of options and settings which you can set on the server and it will help improve a server a lot, great tool for any admin. You can also range ban people but for some reason it doesn't seem to work properly all the time (it will pick up some ranges, but not all).

You can make logs by clicking on your server and then click 'Configuration' above it. On the first tab (Server Configuration) it will state near the bottom: [Log Kicks](#), [Log Says](#), [Log Commands](#), [Log Connections](#). You can set these to Yes, and then the logs will appear in:

[My Documents\scapp\scapp-host\servers*serverid*\logs](#)

*Note: If you want to install scapp-host on a different system and keep all the bans, copy the **scapp** folder to the new system!*

In the same tab you can set kicks for various reasons (doubled IP, doubled name, name changing, high ping etc.).

When kicking or banning someone, there are 2 extra options at the bottom that you could use;

- [Annoy Kick](#); Kicks the player randomly in a time span of 20 sec. to 5 min. (to annoy him).
- [Quick Kick](#); Immediately kicks the player, regardless of any other setting.

I suggest you go through all the configurations and tabs and read what it can do for your server.



Connecting to your server via Proxy

When someone connects to your server by using a proxy (changing their IP), on scapp-host it will NOT show a country code, plus most of the time (not always) the IP looks different from the normal IP's you come across. When someone needs a proxy to connect to your server, it most likely means that they either have something to hide or are simply banned already. An admin could choose to kick or ban anyone connecting via a proxy because they present a reasonable threat. There is however a small chance that the program is bugging so keep a close eye on it.



9.5.4 Reborn (1.12) Patch: Kick & Ban System

The 1.12 patch also includes a ban system. This ban system is extremely useful in occasions where the server's rcon might be flooded (although the patch should block these kinds of attacks none the less). Also if you do not want to give out rcon but do want some admins, you can give them logins so that they can still kick/ban people but not mess with rcon settings.

To switch the ban system on, place the following line in your `server.cfg`: `seta sv_banning 1`

In the 1.12 Patch a file called '`admin.ini`' needs to be placed in the server's main folder.

You can add logins for admin with the right they are allowed to have. For example:

`login=Shadow password=test rights=16383`

Now the file needs to be saved and placed back in the server's `main` folder.

When I go into game I can login by opening console and typing:

`ad_login Shadow test`

(`Shadow` being my name, `test` being my password.)

The rights, in this case (16383), refer to having all rights. A document with these rights (and their values) and also all commands is available on xNULL and every version of the 1.12 Patch, but it's added to [Appendix 1](#) none the less.

With this system you can kick & ban players without leaving the game and you can also check the current ban lists and remove people from it if needed. The range ban on here works extremely well as well and I would advise to use this system for all range bans. When a player is banned by use of the 1.12 Patch they can actually not connect to the server at all, when they try they'll get a message stating that they are banned from this server. This is a huge improvement in comparison to other autokick programs, where a player could still connect and try to attack the server or spam insults.

After you have logged yourself into the server as an admin, you can use the following kick/ban commands:

<code>ad_status</code>	Shows all players and IP's (like rcon status)
<code>ad_kick *name*</code>	Kicks the player by name
<code>ad_clientkick *number*</code>	Kicks the player by their client number (shown in the status)
<code>ad_banname *name*</code>	Bans a player's name
<code>ad_banname *word* 1</code>	Bans every player that has this word/tag in their name.
<code>ad_unbanname *name*</code>	Unbans a player's name
<code>ad_listnames *pagenumber*</code>	Shows a list of all banned names, you can access several pages
<code>ad_banip *IP*</code>	Bans a player's IP
<code>ad_banid *clientnumber*</code>	Bans a player's IP by banning them through their client number
<code>ad_unbanip *IP*</code>	Unbans a player's IP
<code>ad_listips *pagenumber*</code>	Shows a list of all banned IP's, you can access several pages (1 , 2 etc.)

The difference between normal and range IP banning is as follows:

You want to ban the entire IP? : `ad_banip 82.156.230.42`

You want to range ban the IP? : `ad_banip 82.156.*.*`

The star symbols mean that the numbers in those locations do not matter. It will kick everyone who connects with an IP that starts with 82.156 (in this example).

You can always manually add/remove names & IP's to the server's files by editing the following files:

`ipfilter.cfg` & `namefilter.cfg`

The 1.12 (Reborn) Patch's high ping kick can be accessed through rcon/server.cfg by this cvar:

- Console: `rcon sv_kickping *value*` (Example: `rcon sv_kickping 200`)
- Server.cfg: `seta sv_kickping *value*` (Example: `seta sv_kickping 200`)



9.6 Recording Demos

Another way to catch cheaters is by letting them record their own game, this doesn't work in public games really, but in wars (especially on leagues as ClanBase) you can force the other team to record their game. Afterwards they have to place their demos online; making you able to download them and watch them. They need to be in your [demos](#) folder and can only be played through MOHAA itself. You can always record demos of yourself for fun as well (e.g. to create compilation videos).

9.6.1 How to Record

You need a patched MOHAA.exe, which can be found in [Appendix 13](#), included within the zip file of this Guide. The file name is "[MOHAA_RECORDER_1.1.zip](#)".

*** RECORDING A DEMO ***

Open console and type: [g_synchronousClients 1](#) (press [enter](#))

Open console and type: [record demoname](#) (press [enter](#))

*** After you start recording a demo, Open console and set [g_synchronousClients 0](#) (press [enter](#))***
(If you do not set it back to 0, you will start lagging)

*** STOPPING RECORD ***

Open console and type: [stoprecord](#) (press [enter](#))

*** PLAYING A DEMO ***

Open console and type: [playdemo demoname](#) (press [enter](#))

(If you want more playback controls whilst watching demos, check chapter [8.4.4](#).)

Example:

playing a war, Team A vs. Team B

joining server

[g_synchronousClients 1](#)

[record AvsB](#)

[g_synchronousClients 0](#)

war is being played

war is over

[stoprecord](#)

want to look back demo

[playdemo AvsB](#)

9.6.2 Video Editing

If you want to edit and/or place a video on YouTube you need several programs in order to do so.

The file extensions of the demos in MOHAA are '[.dm3](#)', which is an annoying extension.

(These demos get placed in [mohaa\main\demos](#)).

In order to get these in watchable files ([.avi](#) for example) you need [FRAPS](#).

You need to run FRAPS, and then go in game, load your demo and start fraps. Fraps will record your recorded demo again, only now they will be made in '[.avi](#)' files. A word of warning, the files get to 4GB quickly and will automatically create a new video file, so your disk space will diminish rapidly.

When you've re-recorded all the demos/footage you want, you can use video-editing software to make it a bit nicer, like a real 'frag movie'. Some examples of software that can do this are: [MAGIX Music Maker 15](#) & [Sony Vegas Pro](#). There are others of course. Use Google for further information about these programs and how to use them, as I am not an expert in video-editing.



9.6.3 MOHAAC Demo Theater

As previously stated above, MOHAAC records your game automatically and uploads these recordings (.dm3 files) to the MOHAAC site, where they are able to be downloaded by everyone on your profile. MOHAAC does all the work for you and thus you can avoid typing in everything that you need to as stated above in **9.6.1**. All you have to do is launch MOHAAC and play the game, the recordings will be made for you. **NOTE: MOHAAC is currently down and the demo theater might not work anymore.**

Now MOHAAC has a very nice feature, which is the Demo Theater. With this you can watch demos (even the ones not made with MOHAAC) and actually control the video speed.

To launch the Demo Theater, go to your MOHAAC and press **CTRL+D** or simply go to **Utility -> Demo Theater**.

You can now browse your computer for the specific demo to watch, though make sure it is a .dm3 file and that it's located in your **MOHAA\main\demos** folder.

You can now choose/select 2 options before you play the demo, which will help you a lot in catching cheaters but also making nice videos or selecting nice gameplay. (Like normal recordings you can record them with Fraps whilst watching them.)

These 2 options are:

- **X-Ray Mode** *(Watch the demo in wallhack mode, you'll basically see Everyone coloured through walls, this helps when you're trying to find out if someone is wallhacking.)*
- **Enable Playback Control** *(You'll be able to control the speed of the demo and you will be even able to pause it, however you cannot rewind yet.)*

The in-game controls for the '**Enable Playback Control**' are as follows:

Down Arrow	=	Pause
Up Arrow	=	Play Normally
Left Arrow	=	Slow Down
Right Arrow	=	Speed Up
F10	=	Scoreboard

After you've selected your options you can click '**Launch**' to watch the video (in-game).

IMPORTANT NOTE:

Make sure that after you watch a demo and close the Demo Theater that there is no **zzzmohaacxray.pk3** in your **MOHAA\main** folder. The Demo Theater might bug and leave this file in your main, this file will cause wallhack in-game and it will leave an infraction and it will be considered as a cheat and thus you might get banned. Please read more about this file & issue at chapter **11.37**.



9.7 In-Game Commands

Another way to catch cheaters is by asking them for a screenshot of their MOHAA directory. MOHAA has its own commands to view the directory in-game, thus it is not required for the player to leave the game (and thus he is unable to delete his hacks). Now there are ways of bypassing this, but you can always ask, and if they don't want to give it to you, then you know enough. There are also mods out there that automatically let an admin take screenshots from you (though you still have to send them to the admins), but I've seen that this can be quite buggy and screenshots are not being made.

Also an important side note, if you're playing a war, ask the opponent to delete the 'maps' folder located in `MOHAA\main`. This folder is created when you've played a custom map. Once the folder is removed it won't show up again until another custom map has been played. This folder can actually be used to hide cheats from the commands below. (Removing does not damage maps or anything!)

A player can be asked to type in 1 or several of the following commands:

<code>dir</code>	-> Shows all the files in the MOHAA directory
<code>dir ..</code>	-> Shows all the files in the EAGAMES directory (1 above MOHAA directory)
<code>dir main</code>	-> Shows all the files in the MOHAA\main folder
<code>path</code>	-> Shows only the .pk3 files in the MOHAA\main folder
<code>bindlist</code>	-> Shows all the binds from the unnamedsoldier.cfg (excluding scripted binds)
<code>clientinfo</code>	-> Shows the server IP & password, player name, player models and rate + snaps
<code>name</code>	-> Shows the name of the player

(To let console show them all at once, they can be typed in as: `dir;dir ..;path;clientinfo;bindlist;dir main`)

Admins can use the following extra commands:

<code>rcon path</code>	-> Shows the .pk3 files that are being used on the server
<code>rcon status</code>	-> Shows all the IP's of the players currently in the server
<code>rcon dumpuser "name"</code>	-> Shows the 'clientinfo' of the player (incl. skins, name, server IP, rate & snaps)

These commands are used to search for cheats and to show that the screenshots are from the person in question and that he played on the server in question (if he wanted to deny it later on).

**NOTE*: Even when the files look okay and you see e.g. custom maps but no cheats, you should still check if the filesize of the .pk3's is the same as the original (use google or ask people with the same maps/mods). If the filesize / number of files are different, it could be an undercover cheat.*

Now there are also a lot of cheats that do not work via pk3 files but via opengl. Most of these cheats still require commands. Unfortunately there are a lot of cheats and commands out there, but if you have a clue what someone might be using, ask them to type a cheat command in console (and let them take a screenshot of the outcome).

For example: `"vv_3rd_person"`.

A clean person would not get any form of response when entering this in console.

If the cheater is using this cheat, it will either show `"vv_3rd_person is "0" Default is: "0" "` or it will be on `1`. This means that even if the cheat is currently off (0), the player still has this in either his config (meaning he used it in the past) or the hack is still running for MOHAA, but he simply switched it off.

This can be done with a large variety of commands; a list of these is shown in [Appendix 11](#).



9.8 OPENGL / .DLL Cheats

As said before, next to the 'normal' [pk3](#) type cheats, you also have somewhat more advanced cheats that work by using an edited (hacked) version of the [opengl32.dll](#). Now this file CAN be legit, but ONLY for players with Intel HD Graphics cards who seem to be unable to play MOHAA without this file. Luckily there is also a way to see if the [opengl32.dll](#) file is legit or not.

Before it's shown how to catch a 'bad' [opengl32.dll](#), it must be noted that there are other hack files out there with the [.dll](#) extension. Any [.dll](#) file that is NOT in your game folder by default (except for perhaps the [opengl32.dll](#) if you have issues), should NOT be in your game folder. There is a high chance that anyone caught (by e.g. [MOHAAC](#)) with a weird [.dll](#) file, that that person is a cheater. If you can't see the extensions of files, check [8.11](#) for solving this problem.

By using [MOHAAC](#), you'll be able to see (AND download!) any file that any person is using in-game with [MOHAAC](#) on. By being able to download these files, you can check for yourself if they are cheats or not. To see and download the files used by players on MOHAAC can be viewed as followed:

- Check the profile of the player (either via name, match ID or MOHAAC ID/MAC ID).
- It will tell you all infractions of the player, now find the infraction where the file you want to download is located.
- Behind this infraction it will give you a match id where this infraction was made.
- Go to that match ID (by clicking on it) and search for the player's MOHAAC ID in the list.
- *(The player's MOHAAC ID can be found on his profile (in the URL of the site).)*
- When you've found the player, click on the [blue arrow](#) at the end of his line (below '[View Match Data](#)').
- You will now get a list of the files the player used in this Match ID and you'll be able to download them by clicking on the [blue arrow](#) (below [DOWNLOAD](#)).

To see if an [opengl32.dll](#) or any [.dll](#) file is legit or not, do the following:

1. You can open the files by opening them with notepad (see [8.12](#) on how to do this).
2. When opened, you'll most likely see a lot of gibberish (random symbols, letters etc.), this is normal, don't worry about it.
3. Now you could compare the [opengl32.dll](#) with the normal one (found in the [.zip](#) file of [Appendix 15](#)) and see if they are different from each other, if they are, this would most likely indicate a cheat.
4. You could also filter the file on specific keywords that are used for cheats, if you find these words; you've got a cheat file on your hand. (Use [CTRL+F](#) to filter keywords.)

List of filter words

- [Hack](#)
- [Cheat](#)
- [Bot](#)
- [ESP](#)
- [Cham](#)

NOTE: Make sure these words are not found as part of a longer, normal word. E.g. '[bot](#)' is used in the word '[both](#)' and '[esp](#)' in the word '[response](#)'. These will obviously be false-positives, so make sure to see if it actually has to do with a cheat.

The meaning of the words [ESP](#) & [Cham](#) are explained in [Appendix 23](#).



9.9 Server Qconsole.log

You can also check out the [qconsole.log](#) of the server (admins only) and use **CTRL+F** to scout for some of the cheat commands located in [Appendix 11](#), to see if any player has tried to use a cheat. However, false positives do exist, sometimes a player shows up with a lot of commands in the log upon connecting, this is due to [foresight.cfg](#) (an anti-cheat) and these commands are **not** being used! To avoid these false-positives, type a spacebar at the start of the command when searching through the log with **CTRL+F**. *(Remove the "" symbols below, I just added them to show the spacebar.)*

So: " vv_3rd_person"

Not: "vv_3rd_person"

Also, if you encounter any cheat commands in the log like this, it will mean that the person either had cheats in the past, or an admin forced them upon the client on a server. The latter will probably never happen in these days though, because hardly any admin knows how to, and no one looks into the logs anyways. This means that most of the results will give you an indication that the person has cheated in the past and still has some of the cheat commands bound.

If they were using the cheats at the moment, you would not see the commands in the log, because the server would recognize the command as a working one, and will not place it in the logs because it's not confusing the server.

(Skins and iprint messages are still portrayed accurately in the logs & could indicate current cheaters!)

NOTE: If your [qconsole.log](#) is not showing up or not showing up enough data, you'll need to add (or change) the following lines in your [server.cfg](#):

- [seta developer 2](#)
- [seta logfile 3](#)
- [seta g_logsync 1](#)
- [seta sv_chatter 1](#)

Check out the following chapters for more information about some logfile settings:

- [8.17 Client Qconsole.log](#)
- [8.17.1 Developer Mode](#)
- [8.17.2 Logfile Options](#)

If for some reason, you're still not getting any logs, try changing the value of the above settings (trial and error) or try to add the following CVARS:

- [seta g_log "qconsole.log"](#) OR [seta g_log "serverlog.log"](#)
- [seta logsync 1](#)
- [seta logfile "qconsole.log"](#)
- [seta g_logstats 1](#)

NOTE: The reason for these extra CVARS is because there is still a lot unknown about the logfiles and they don't always seem to work everywhere all the time, or not in the right way, so with this, hopefully you'll have enough testing information.

Linux (Possible) Extra CVARS:

- [seta fs_basepath .](#)
- [seta fs_userpath /log](#)
- [seta fs_outputpath /log](#) OR [seta fs_outputpath /games/mohaa/log](#)



The following pictures are screenshots made directly from the qconsole.log.

```
SV packet 79.86.102.100:12203 : getchallenge
SV packet 79.86.102.100:12203 : connect
SVC_DirectConnect ()
>>>\challenge\1560963977\qport\21165\protocol\8\r_lodscale\1\r_lodcap\1\r_lodviewmodelcap\1\r_picmip\0\r_lockpvs
\0\r_light_nolight\0\r_fullbright\0\r_showSmp\0\r_farplane\0\r_farplane_nocull\0\r_farplane_nofog\0\r_novis
\0\r_lightmap\0\cg_te_dietouch\0\r_vertexlight\0\g_showbullettrace\0\cheats\0\r_mapOverBrightBits\1\developers
\0\r_light_showgrid\0\r_overbrightbits\0\r_showsky\0\r_nobind\0\r_singleshader\0\ib_wallhack\0\ib_hud\0\ib_doaime
\0\ib_doshoot\0\name\UnnamedSoldier\rate\5000\snaps\20\dm_playermodel\american_army\dm_playergermanmodel
\german_wehrmacht_soldier<<<
version 8 connecting to 8
client 37 connecting with 0 challenge ping
IP: 79.86.102.100:12203
UnnamedSoldier is preparing for deployment
```

FALSE POSITIVE: Upon connection a cheat list is generated by the config to make sure no cheats are used. This only happens upon connecting, the green line indicates the connecting players IP and the red line indicates the players' name. Cheats are always used in the middle of the game, NOT upon connecting! Thus the above player is NO cheater. This list is caused by the old Foresight anti-cheat.

```
Rcon from [REDACTED]:
status
clientCommand: KiTEPOW3R- : 29 : cr_aimbot 1
--{XXx}=-|UWK|=-{XXXj}=- Was sniped by KiTEPOW3R- in the middle torso
SV packet [REDACTED] : getstatus
SV packet [REDACTED] : getstatus
SV packet [REDACTED] : RCON
Rcon from [REDACTED]:
status
clientCommand: KiTEPOW3R- : 30 : cr_aimbot 0
Client text ignored for KiTEPOW3R-
```

(EX-)CHEATER DETECTED: In the middle of the game the player uses a cheat command, which is indicated by the green lines. The red lines are once again the name of the player in question. Black bars are to protect IP's of non-cheaters & admins. This means the player HAD cheated in the past, or an admin forced the commands on him (admin abuse). So it's only an indication of past cheating, could be a false-positive as well.

```
SV packet 213.118.193.246:12203 : getchallenge
SV packet 213.118.193.246:12203 : connect
SVC_DirectConnect ()
>>>\challenge\1226704592\qport\4861\protocol\8\snaps\40\name\KiTEPOW3R-\rate\25000\dm_playergermanmodel
\german_waffenss_officer\dm_playermodel\american_army<<<
version 8 connecting to 8
client 52 connecting with 0 challenge ping
IP: 213.118.193.246:12203
KiTEPOW3R- is preparing for deployment
```

LOOKING UP IP OF CHEATER: When the above ex-cheater was found, I back-tracked his name (CTRL+F) to find the moment he connected to the server. This will show his IP (green lines) and his name (red lines), which are needed for banning. You can also notice that unlike the first screenshot, there are no cheat commands / cheat lists on the specific player upon connecting (thus again, a list like that is a false positive and does NOT mean cheats).

The above pictures will give you an idea what to look for and where to look for it.

To learn more about what some of the things in the logs actually mean, skip over to the next page!



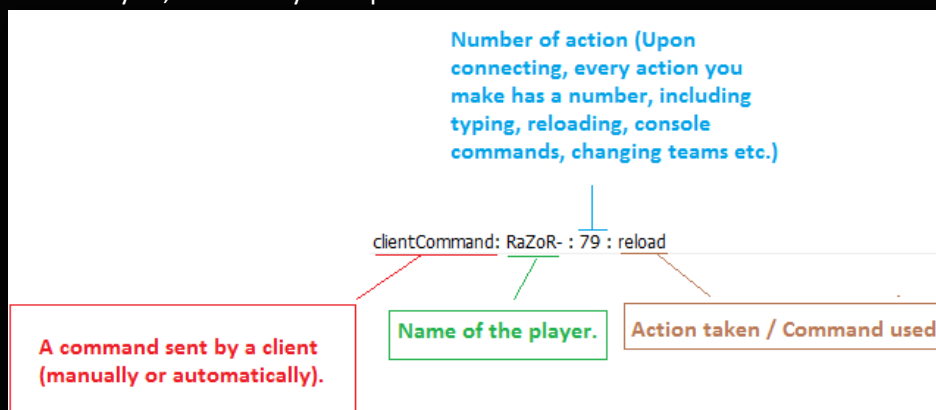
9.9.1 Filter Logs

Apart from looking every command up manually there is also an easier way to filter all commands quicker. There is free software called '[MuseTips – Text Filter](#)'. The [TextFilterSetup.exe](#) is included in [Appendix 13](#).

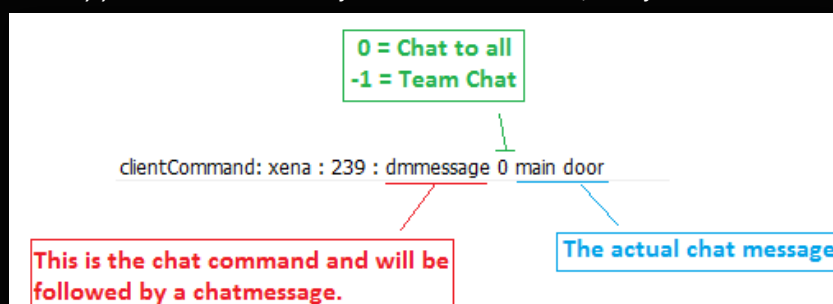
You can now type in a word or sequence of words in the search bar and it will give you every result in the entire log. The only thing you still have to do afterwards is open the log and locate the IP of the players that used the cheats. Be on the lookout for name fakers! I suggest you search the log for the specific cheat used, then use **CTRL+F** to search backwards on his name to find the moment he connected OR changed his name (in that case you need to type in his old name and again keep searching backwards).

There are a lot of commands that can be used to filter the log. I will make a list below to show you what they are and why I search for them. You can of course create your own search options. If you want to remove something from your search, type in **-word** in the search bar (so minus symbol and the word you want to remove from your searches).

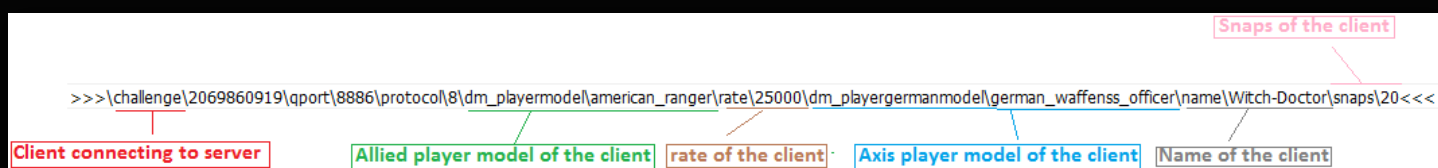
It's good to explain something first about the logs. You'll get to see a lot of words/lines that might not make sense to you, thus I'll try to explain that a bit first.



This shows one of the most common and useful commands; the clientCommand. Obviously you don't need to know if someone reloads or not, we'll filter that out later on.



*Explanation of the chat messages; useful to recheck what people have said. All taunts are shown as e.g.: *31 (which is V31 -> Yes Sir!) or others numbers/taunts.*



The line that shows up when a player connects. It gives you all the 'dumper' info. The IP is shown above + below this (as shown on the page before). This is an important line to check for chamskins.



Included in [Appendix 11](#) is a list that has almost all cheat commands so you can check whether something is a cheat command or not. Although some cheat commands are really obviously spotted. Some of the filter commands still result in some false positives, or at least commands that are not a cheat. Anything you type into console or weird things you might have binded will show up in the logs. Also typos (typing: *quiot* instead of *quit* or *cleamtic* instead of *cinematic*) will show up.

Filter Command	Possible Results	Explanation
Cheat Commands		
<i>clientcommand -userinfo -score -reload -dmmessage -join_team -disconnect -primary -spectator -cinematic -reconnect -kill -quit -callvote -stufftext -iprint -ad_</i>	All client commands except for the ones filtered out by the minus (-) symbol. Including cheats, typo's and random/clean commands as well.	This shortens the list A LOT and makes it easier to scroll through. I don't see the need to filter it any further. List with cheat commands is added to Appendix 11 .
<i>clientcommand iprint</i>	Will show all iprint commands, MOHAAC uses this as well so you will have a big list of clean lines. I will add a list with all known iprint cmds below.	iprint delivers a yellow message below your compass. Some scripts (including cheats) make use of this. MOHAAC scans make use of this as well.
Cheat Skins		
<i>playermodel _2 -german_winter_2</i>	All normal skins with a _2 behind it are cheat skins. <i>german_afrika_officer_2</i> <i>german_worker_2</i> etc.	A lot of chams change the normal skin and add a number behind it. <i>german_winter_2</i> is a stock skin and thus is removed from the search.
<i>playermodel _1 -german_winter_1 -allied_british_1_snow_helmet1 -allied_101 -1stranger</i>	All normal skins with a _1 behind it are cheat skins. <i>german_afrika_officer_1</i> <i>german_worker_1</i> etc.	A lot of chams change the normal skin and add a number behind it. <i>german_winter_1</i> is a stock skin and thus is removed from the search. Some other clean custom skins are removed because a lot of people use them and this helps filter it better.
<i>playermodel allied_Pilot1</i> or <i>playermodel german_Worker1</i>	A much used cheat that uses both skins simultaneously. <i>allied_Pilot1</i> <i>german_Worker1</i>	It is still possible that only 1 of them appears, doesn't make it less of a cheat. A known and recent hack toggles this cham on and off. Be on the lookout for people that use the normal versions of these skins as well (especially if they have capital letters of Pilot and Worker).
<i>Alliance</i>	<i>allied_alliance-fatboys</i> <i>german_ALLIANCE-FATBOYS</i>	Known combination of cheat skins, could possibly find more cheats.
<i>playermodel kathak</i>	<i>allied_kathakano_Airborne</i> <i>allied_kathakano_Manon</i> <i>german_Afrika_kathakano_Private</i> <i>german_kathakano_Worker</i>	Known combination of cheat skins.
<i>playermodel aIIied_Manon</i> or <i>playermodel german_Elite_Sentry</i>	<i>aIIied_Manon</i> <i>german_EIite_Sentry</i>	Known combination of cheat skins. Make sure you see that the difference between the normal skins is that instead of the L they use an I.
<i>playermodel Allied_Blue</i> or <i>playermodel Axis_Red</i>	<i>Allied_Blue</i> <i>Axis_Red</i>	Known combination of cheat skins.
<i>playermodel allied_airborne1</i> or <i>playermodel tankcommander1</i>	<i>allied_airborne1</i> <i>german_panzer_tankcommander1</i>	Known combination of cheat skins.
<i>All stockskins with 1, 2, 3, 4 or 5 behind them.</i>	Will result in finding all stock skins with those numbers behind them.	There are cheats that place a number behind a stock skin. This makes it a cheat skin. Unfortunately if you want to filter the log for this, you'd have to search for EVERY stock skin with these numbers behind them.



Filter Command	Possible Results	Explanation
Cheat Indications		
<i>Cheatergay</i>	www.Cheatergay.has.it	People who use this specific cheat will automatically get their name changed into www.Cheatergay.has.it , so everyone with that name is using that cheat (or changed their name to that cheat website manually, which is highly unlikely but also reason for a ban in my opinion).
<i>Alliance</i>	I'm [JVvn1nG with D is5olu7i0n v3.0 (GL) - Available at HACKERS-ALLIANCE.NET	People who use this specific cheat might accidentally press a button that makes them say this line in chat. So either they are using a cheat or actually binded this for fun (which seems highly unlikely and again still reason for a ban).
<i>W32</i>	W32 *Name*	Every name starting with W32 is a cheater. It is caused by certain cheats, created by the old W32 hack clan.
Server Crash Attempts		
<i>flood control</i>	FLOOD CONTROL - client blocked: When looking through the log itself you'll find the exact flood attempt: FLOOD CONTROL - client blocked: name: *** ip: 41.**.*.* time: 163701560 Game rejected a connection: Too many connection attempts from your host Don't flood this server	People that try and flood the server with fake players will get blocked and logged by the 1.12 patch. It has to be a big list of results (not just 2 or 3) otherwise it's a false positive. If you see it at least 10 times in a row then it's a possible flood attempt.
<i>bad rcon</i>	Bad rcon from *IP*	People that try to flood rcon will leave a trace of 'bad rcon' in the logs. It's only a REAL rcon flood attempt if someone with the same IP shows up with bad rcon's for at least 30 times in a row. As everyone can type in a wrong password, and sometimes it bugs a bit.
<i>crash attempt</i>	broadcast: print "Klesnikov kicked for server crash attempt!\n" When looking through the log itself you'll find the exact crash attempt: clientCommand: Klesnikov : 1 : lod_spawn 1 Klesnikov Clientnum: 3 IP: 92.**.*.* - tried to crash server using lod_spawn broadcast: print "Klesnikov kicked for server crash attempt!\n"	Thanks to the 1.12 patch you can now see people that tried to crash the server (by various ways), but failed to do so.
Useful Commands		
<i>dmmessage</i>	List of all chats in the server.	This will give you every single thing that has been said in chat by every player that has been in the server, including taunts.
<i>dmmessage -*1 -*2 -*3 -*4 -*5 -*6</i>	List of every chat message by all players, excluding taunts.	Taunts are marked in the logs by a star symbol (*) followed by the numbers from the specific taunt. Removing these will make reading easier.
<i>dmmessage name/word</i>	List of all chat messages with this specific name or word.	If you want to read all messages by 1 person or locate the use of a (bad) word.



If you search for “[iprint](#)”, you will find every player that has used this command, this command places a yellow text on the screen (below the compass), some mods & servers make use of this. Luckily also some cheats make use of this, to show the player that the cheat is on or off. I haven’t found many of these yet, but I will place my iprint finds below, with explanation.

iprint Command	Explanation
Sniper-Accuracy-On / Sniper-Accuracy-Off	Quickscope script
Lean-Strafe-Off / Lean-Strafe-On	Lean&Strafe simultaneously script / Leanbind
[Boost1] / [Boost2] / [Normal]	Ping booster script
[xxx]ADMiN-PROTECTION[xxx]*ALIAS*active 1	Protection against stufftext from admin
record[stopped]	Recording script
(#) players are active and clean on ***	MOHAAC Option to check clean players on server
SuperDisco.ON	-
Autofire-On / Autofire-Off	Autofire script
EagleEye.ON / EagleEye.OFF	3 rd person script

The last 2 (Autofire & 3rd person) scripts are obviously cheats. The others could be regarded innocent, though if an admin does not want to take chances or does not allow scripts then he could of course kick or ban those players.

9.10 Skin/Model Check

The log also logs all models that are being used by the players upon connecting to the server. You could always go through those and see if you find something fishy (though it’s difficult to tell whether a skin is a cheat skin or not). Player models can be found in the logs by searching for “[dm_playermodel](#)” or “[dm_playergermanmodel](#)”. If you happen to know a cheat skin which someone might be using, you could always search for the name of the cheat skin, which obviously searches a lot quicker. In the filter commands in the table above (chapter [9.9.1](#)) you’ll find the mostly used cheat skins and how to search for them in the logs, which might help. For the entire list of all known cheat skins, see [9.11](#).

[MOHAA CI](#) shows you all the models of the players in the server, which is of course easier than searching through the logs, you could also kick people who do not use the default skins with it. Next to these 2 options, you can also use ‘[dumpuser](#)’ to find out what models the players are using. This can be used while the person is playing, so if you suspect someone from wallhacking the [dumpuser](#) command is a nice addition!

[rcon dumpuser](#) [playername](#)

IF the name has a spacebar in it, you NEED to type the name between brackets (“ ”).

Example: [rcon dumpuser](#) “[This is my name](#)”

Or if he doesn’t have a space in his name:

Example: [rcon dumpuser](#) [This_is_my_name](#)

NOTE: There are plenty of cheats/hacks out there that avoid detection by [dumpuser](#) and/or [qconsole.log](#), so just because a player is not found cheating by these methods, doesn’t mean they are 100% clean for sure.



9.11 Cheat Skins

In the previous chapters you have been shown how to check for (cheat) skins (9.10) and how to filter your searches for these skins in the [qconsole.log](#) (9.9.1). Now, you'll get a complete list of all known cheat skins, this way you as an admin can be on the lookout for all of them. For reference, a list of all stock/default player skins for AA, SH & BT have been added to [Appendix 29](#).

2 notes for your consideration:

- The following listed skins are 100% wallhack/cham skins and are used for/to cheat. They are not simply 'bright' skins, as some old lists also included these, which are technically not cheat skins (e.g. a bright Santa Claus outfit).
- The following listed skins are all KNOWN cheat skins, if you find a player using different skins (even a stock ones), they could still be cheats of course, only less easy to prove.

Cheat Skins	Additional Information
allied_kathakano_Airborne	
allied_Airborne_kathakano	
allied_kathakano_Manon	
german_Afrika_kathakano_Private	
german_kathakano_Worker	
aIIied_Manon	The 'L' in allied is changed to the letter I.
german_EIite_Sentry	The 'L' in Elite is changed to the letter I.
allied_ALLIANCE-FATBOYS	
german_ALLIANCE-FATBOYS	
Allied_Blue	
Axis_Red	
allied_Pilot1	Stock skin, with the number '1' behind it.
german_Worker1	Stock skin, with the number '1' behind it.
allied_airborne1	Stock skin, with the number '1' behind it.
german_panzer_tankcommander1	Stock skin, with the number '1' behind it.
allied_airborne_2	Stock skin, with ' _2' behind it.
allied_manon_2	Stock skin, with ' _2' behind it.
allied_pilot_2	Stock skin, with ' _2' behind it.
allied_sas_2	Stock skin, with ' _2' behind it.
american_army_2	Stock skin, with ' _2' behind it.
american_ranger_2	Stock skin, with ' _2' behind it.
german_afrika_officer_2	Stock skin, with ' _2' behind it.
german_afrika_private_2	Stock skin, with ' _2' behind it.
german_elite_officer_2	Stock skin, with ' _2' behind it.
german_elite_sentry_2	Stock skin, with ' _2' behind it.
german_kradshutzen_2	Stock skin, with ' _2' behind it.
german_panzer_grenadier_2	Stock skin, with ' _2' behind it.
german_panzer_obershutze_2	Stock skin, with ' _2' behind it.
german_panzer_shutze_2	Stock skin, with ' _2' behind it.
german_panzer_tankcommander_2	Stock skin, with ' _2' behind it.
german_scientist_2	Stock skin, with ' _2' behind it.
german_waffenss_officer_2	Stock skin, with ' _2' behind it.
german_waffenss_shutze_2	Stock skin, with ' _2' behind it.
german_wehrmacht_officer_2	Stock skin, with ' _2' behind it.
german_wehrmacht_soldier_2	Stock skin, with ' _2' behind it.



german_winter_1_2	Stock skin, with ' _2' behind it.
german_winter_2_2	Stock skin, with ' _2' behind it.
german_worker_2	Stock skin, with ' _2' behind it.
allied_airborne_1	Stock skin, with ' _1' behind it.
allied_manon_1	Stock skin, with ' _1' behind it.
allied_pilot_1	Stock skin, with ' _1' behind it.
allied_sas_1	Stock skin, with ' _1' behind it.
american_army_1	Stock skin, with ' _1' behind it.
american_ranger_1	Stock skin, with ' _1' behind it.
german_afrika_officer_1	Stock skin, with ' _1' behind it.
german_afrika_private_1	Stock skin, with ' _1' behind it.
german_elite_officer_1	Stock skin, with ' _1' behind it.
german_elite_sentry_1	Stock skin, with ' _1' behind it.
german_kradshutzen_1	Stock skin, with ' _1' behind it.
german_panzer_grenadier_1	Stock skin, with ' _1' behind it.
german_panzer_obershutze_1	Stock skin, with ' _1' behind it.
german_panzer_shutze_1	Stock skin, with ' _1' behind it.
german_panzer_tankcommander_1	Stock skin, with ' _1' behind it.
german_scientist_1	Stock skin, with ' _1' behind it.
german_waffenss_officer_1	Stock skin, with ' _1' behind it.
german_waffenss_shutze_1	Stock skin, with ' _1' behind it.
german_wehrmacht_officer_1	Stock skin, with ' _1' behind it.
german_wehrmacht_soldier_1	Stock skin, with ' _1' behind it.
german_winter_1_1	Stock skin, with ' _1' behind it.
german_winter_2_1	Stock skin, with ' _1' behind it.
german_worker_1	Stock skin, with ' _1' behind it.
allied_Airborne2	Stock skin, with the number '2' behind it.
allied_Airborne3	Stock skin, with the number '3' behind it.
allied_Airborne4	Stock skin, with the number '4' behind it.
allied_Airborne5	Stock skin, with the number '5' behind it.
allied_Army3	Stock skin, with the number '3' behind it.
allied_Manon2	Stock skin, with the number '2' behind it.
allied_Manon3	Stock skin, with the number '3' behind it.
allied_Manon4	Stock skin, with the number '4' behind it.
allied_Manon5	Stock skin, with the number '5' behind it.
allied_Pilot2	Stock skin, with the number '2' behind it.
allied_pilot3	Stock skin, with the number '3' behind it.
allied_Pilot4	Stock skin, with the number '4' behind it.
allied_Pilot5	Stock skin, with the number '5' behind it.
allied_SAS2	Stock skin, with the number '2' behind it.
allied_SAS3	Stock skin, with the number '3' behind it.
allied_SAS4	Stock skin, with the number '4' behind it.
allied_SAS5	Stock skin, with the number '5' behind it.
american_alie2	
american_Army2	Stock skin, with the number '2' behind it.
american_Army3	Stock skin, with the number '3' behind it.
american_Army4	Stock skin, with the number '4' behind it.
american_Army5	Stock skin, with the number '5' behind it.



american_Ranger2	Stock skin, with the number '2' behind it.
american_Ranger3	Stock skin, with the number '3' behind it.
american_Ranger4	Stock skin, with the number '4' behind it.
american_Ranger5	Stock skin, with the number '5' behind it.
german_Afrika_Officer2	Stock skin, with the number '2' behind it.
german_Afrika_Officer3	Stock skin, with the number '3' behind it.
german_Afrika_Officer4	Stock skin, with the number '4' behind it.
german_Afrika_Officer5	Stock skin, with the number '5' behind it.
german_Afrika_Private2	Stock skin, with the number '2' behind it.
german_Afrika_Private3	Stock skin, with the number '3' behind it.
german_Afrika_Private4	Stock skin, with the number '4' behind it.
german_Afrika_Private5	Stock skin, with the number '5' behind it.
german_Elite_Officer2	Stock skin, with the number '2' behind it.
german_Elite_Officer3	Stock skin, with the number '3' behind it.
german_Elite_Officer4	Stock skin, with the number '4' behind it.
german_Elite_Officer5	Stock skin, with the number '5' behind it.
german_Elite_Sentry2	Stock skin, with the number '2' behind it.
german_Elite_Sentry3	Stock skin, with the number '3' behind it.
german_Elite_Sentry4	Stock skin, with the number '4' behind it.
german_Elite_Sentry5	Stock skin, with the number '5' behind it.
german_Kradshutzen2	Stock skin, with the number '2' behind it.
german_Kradshutzen3	Stock skin, with the number '3' behind it.
german_Kradshutzen4	Stock skin, with the number '4' behind it.
german_Kradshutzen5	Stock skin, with the number '5' behind it.
german_Panzer_Grenadier2	Stock skin, with the number '2' behind it.
german_Panzer_Grenadier3	Stock skin, with the number '3' behind it.
german_Panzer_Grenadier4	Stock skin, with the number '4' behind it.
german_Panzer_Grenadier5	Stock skin, with the number '5' behind it.
german_Panzer_Obershutze2	Stock skin, with the number '2' behind it.
german_Panzer_Obershutze3	Stock skin, with the number '3' behind it.
german_Panzer_Obershutze4	Stock skin, with the number '4' behind it.
german_Panzer_Obershutze5	Stock skin, with the number '5' behind it.
german_Panzer_Shutze2	Stock skin, with the number '2' behind it.
german_Panzer_Shutze3	Stock skin, with the number '3' behind it.
german_Panzer_Shutze4	Stock skin, with the number '4' behind it.
german_Panzer_Shutze5	Stock skin, with the number '5' behind it.
german_Panzer_Tankcommander2	Stock skin, with the number '2' behind it.
german_Panzer_Tankcommander3	Stock skin, with the number '3' behind it.
german_Panzer_Tankcommander4	Stock skin, with the number '4' behind it.
german_Panzer_Tankcommander5	Stock skin, with the number '5' behind it.
german_Scientist2	Stock skin, with the number '2' behind it.
german_scientist3	Stock skin, with the number '3' behind it.
german_Scientist4	Stock skin, with the number '4' behind it.
german_Scientist5	Stock skin, with the number '5' behind it.
german_Waffenss_Officer2	Stock skin, with the number '2' behind it.
german_Waffenss_Officer3	Stock skin, with the number '3' behind it.
german_Waffenss_Officer4	Stock skin, with the number '4' behind it.
german_Waffenss_Officer5	Stock skin, with the number '5' behind it.



german_Waffenss_Shutze2	Stock skin, with the number '2' behind it.
german_Waffenss_Shutze3	Stock skin, with the number '3' behind it.
german_Waffenss_Shutze4	Stock skin, with the number '4' behind it.
german_Waffenss_Shutze5	Stock skin, with the number '5' behind it.
german_Wehrmacht_Officer2	Stock skin, with the number '2' behind it.
german_Wehrmacht_Officer3	Stock skin, with the number '3' behind it.
german_Wehrmacht_Officer4	Stock skin, with the number '4' behind it.
german_Wehrmacht_Officer5	Stock skin, with the number '5' behind it.
german_Wehrmacht_Soldier2	Stock skin, with the number '2' behind it.
german_Wehrmacht_Soldier3	Stock skin, with the number '3' behind it.
german_Wehrmacht_Soldier4	Stock skin, with the number '4' behind it.
german_Wehrmacht_Soldier5	Stock skin, with the number '5' behind it.
german_Winter_12	Stock skin, with the number '2' behind it.
german_Winter_13	Stock skin, with the number '3' behind it.
german_Winter_14	Stock skin, with the number '4' behind it.
german_Winter_15	Stock skin, with the number '5' behind it.
german_Winter_22	Stock skin, with the number '2' behind it.
german_Winter_23	Stock skin, with the number '3' behind it.
german_Winter_24	Stock skin, with the number '4' behind it.
german_Winter_25	Stock skin, with the number '5' behind it.
german_Worker2	Stock skin, with the number '2' behind it.
german_Worker3	Stock skin, with the number '3' behind it.
german_Worker4	Stock skin, with the number '4' behind it.
german_Worker5	Stock skin, with the number '5' behind it.
allied_workling	
german_corporal	
allies_chameleon	
german_chameleon	
allies_namehere	
german_namehere	
allied_666_model	
axis_666_model	
allied_SerialSquad	
axis_SerialSquad	
allied_red_model	
axis_red_model	
german_Easy2Spot	
EasyToSpot	
allied_lara_croft	
1nj3c1i0n	
german	
ita	
ital	
italiano	
italianoo	
italianoob	
Soul	
Zeno	



9.12 Cheat Indicators

Cheat indicators are files and terms that link to cheats, but it doesn't necessarily mean it is a cheat. Some are obvious of course, when something is called 'aimbot' or 'wallhack', but some are less obvious so be careful with accusing. You can always ask experts about certain files or commands.

In a previous chapter (9.9.1) there have been listed several cheat indicators and how to search and filter them in the server's [qconsole.log](#) files. These are the most known terms to look for in the logs. However below will be shown all the known ways to identify cheats (in logs, in-game, in screenshots, in file names, in bind lists etc.).

Note #1: Always be aware that false-positives do exist, although most are pretty straightforward and simply cheats. However the term 'bots' for example can be used for actual AI Bots who run around like real players, which has nothing to do with cheats.

Note #2: Some terms can be written in different ways, so be on the lookout for that (e.g. hax = h4x or cheat = ch33t).

General Indicators

- Any files, commands/CVARs, binds etc. with the following terms;
 - Hack
 - Hax
 - Cham / Chameleon
 - Aim
 - Cheat
 - Safe
 - Fake
 - Clean
 - Dirty
 - No-Fog
 - No-Bush
 - No-Trees
 - No-Sunflare
 - No-Recoil
 - ESP
 - Bot
- Any weird/suspicious config ([cfg](#)) files (other than [unnamedsoldier.cfg](#) or [foresight.cfg](#)), they could include cheat commands, although you'd have to see within the files for yourself.
- Any abnormal CVAR/commands or binds, which may look normal but are not. Cheats tend to change default commands slightly to be used for cheating. Examples:
 - [cg_f0rc3m0d3l](#) (hacked version of [cg_forcemodel](#))
 - [cg_3rd_p3rs0n](#) (hacked version of [cg_3rd_person](#))
 - [cg_3rd_perzon](#) (hacked version of [cg_3rd_person](#))
 - [cg_shaows](#) (hacked version of [cg_shadows](#))
 - [r_p1cm1p](#) (hacked version of [r_picmip](#))
 - etc. (See [Appendix 11](#) for a full list of cheat commands/CVARs/binds.)
- Any completely abnormal CVAR/commands or binds, which don't even look like default commands. These are listed in [Appendix 11](#) as well, but some examples:

◦ cr_aim	pb_clearscopes
◦ cr_boxesp	scv2_whitewalls
◦ cr_namestealer	e_TargetBox
◦ dis4_crosshair	wb_aim1
◦ dis4_fog	wbmenu
◦ ib_burstdelay	dobufferexploit



- Any menus (either files or in the bindlist) which don't look like admin/rcon menus. As a lot of cheats use menus.
- Anything showing the text 'screenshot' (apart from an actual screenshot of course), as it could have something to do with a screenshot bypass (to hide cheats).
- Anything showing the text 'on' or 'off', as this can easily be a toggleable cheat (doesn't have to be of course, but it's likely).
- Any weird [iprint](#) commands (found in the [qconsole.log](#)) could be cheats. Some clean and some dirty ones are listed at the end of chapter [9.9.1](#).

Specific Indicators

Below you'll see a table with specific indicators, which come straight out of cheats, these are Player Names, Binded chat messages and texts you might find in logs or screenshots to catch these cheaters. A little additional information has been added to help you locate these indicators.

Cheat Indication	Information
www.Cheatergay.has.it	Anyone using this name is using a cheat. The cheat can cause you to change your name to this.
W32	Anyone's name starting with W32 is using a cheat. It's an old hack clan that created these cheats and used to terrorize servers when MOHAA was new, the cheats automatically change your name to W32 something.
I'm 0WN1NG with D is5olu7i0n v2.0 - Available at HACKERS-ALLIANCE.NET	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 2).
I'm []Vvn1nG with D is5olu7i0n v3.0 (GL) - Available at HACKERS-ALLIANCE.NET	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 3).
I'm []Vvn1ng with D is5olu7i0n 4.0 (GL) Final available at HACKERS-ALLIANCE.NET	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 4).
I'M TRYING TO USE THE FAKE AIMBOT IN D is5olu7i0n 4.0 (GL) Final	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 4).
WELL NOW THAT I'VE MADE A JACKASS OF MYSELF, D is5olu7i0n IS GOING TO CRASH MY GAME.	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 4).
PS: I SLEEP WITH MEN	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat (Version 4).
Clean-Skins-Selected Neon-Skins-Selected Chameleon-Skins-Selected	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
_(^*)_ChAmZ_[]	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
nAmEz[+]On nAmEz[-]Off	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
zZz:AX__IS:zZz ***:ALL__IES:***	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
^+AIM__+ON+^ ._AIM__OFF_.	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
+)IEANz__++ON(+ -(IEANz__ -OFF)-	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
'[]_, ([]) '[]_,	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat.



([] W N ")[" ! 1	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat.
-FYC- (())WNZ YoU1	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat.
fake-screenshot-taken skin-set1-selected FAKE-set1-selected	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
S7ATiC rules	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
SCREENSHOT_COMIIINNNNGGG!!!!	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
Who's Good?... I'm Good	A binded text caused by the cheat. If you see anyone say this in chat, in-game (or in qconsole.log), they are using a cheat.
Variable Burst Fire Script	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
EagleEye 3rd-Person 0 Zoom 0	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.
FAST_SNIPER_ON FAST_SNIPER_OFF cham_skins_off cham_skins_on	When you see this text in someone's screenshot, or perhaps in the qconsole.log, they are using a cheat.

Hopefully all these lists and indicators will help you catch some scumbag cheaters!
Happy Hunting!



10. Mods

10.1 Freeze-Tag

Freeze-Tag is the game-type made by the public (and copied from Quake 3 Arena) which basically means you become frozen as soon as you die. If someone melts you, you will be resurrected again. The first team to have all of his players frozen loses. To melt someone, either stand next to their frozen body or press and hold the 'USE' key (default is **E**) and aim at the frozen player to melt him.



Some people prefer killing others instead of melting their teammates, fortunately there is a Melpoint Mod addition to Freeze-Tag which gives you 1 kill per melt. Thus if you melt 10 people, the scoreboard will show 10 extra kills for you. This will make it attractive for players to melt their teammates (like an extra motivation).

10.1.1 Remove Laserbeam and/or Melting Sound

To remove the laserbeam (which removes the visual beam, meaning the beam is still there and useable! You just can't see the beam anymore) and/or remove the melting sound (the sound that is played when melting an opponent), do the following:

For the laser beam, add this to your server.cfg file or type it to the console for temporary use:

Code:

```
set g_mef_settings "meltgun: on"
```

For the laser sound, follow these steps:

1. Find the **global/libmef** folder in the Freezetag pk3 file.
2. Open **ft.scr**
3. Find these lines in the .scr (at line 230):

Code:

```
level.ft_lasersound["allies"] = "m213_machine_loop"  
level.ft_lasersound["axis"] = "m213_radiol"  
level.ft_meltingsound = "welding_torch"
```

4. Change it to this:

Code:

```
level.ft_lasersound["allies"] = ""  
level.ft_lasersound["axis"] = ""  
level.ft_meltingsound = ""
```

For some reason, when I left the meltgun: on - That worked 🤖

As you can see in step 4, I just took out the sounds files!

(Thanks to AFShadow for the above information)



10.1.2 Melting through Objects

You will be able to melt through objects in Freeze-Tag. This includes, but is not limited to; doors, walls, boxes etc. Below will follow a few tips to help you melt your teammates quicker, or make them melt you quicker.

- When you see a frozen teammate in a doorway, and the door closes, just melt them through the door without a problem.
- If you know the location of a teammate (either by hearing/seeing them die, them telling you where they died or looking at the death locations in the bottom of the screen), just use your laserbeam to melt through the doors and walls and see if you will be able to locate them and melt them through it.
- If you are in a firefight (or if you know you're going to die), try to move as close to a wall or door as possible so that others will be able to melt you through it.
- Don't rush the enemy spawn or a spot where many enemies are, because you will be less likely to get melted. Make sure you either are in a big group or shoot/fight from a long distance, thus increasing your melting chances.

10.1.3 When to Melt?

Obviously you would want to win the game, and for that you could use as many teammates as possible and thus you should always melt your teammates when possible. BUT when do you actually melt your teammates? There are moments when you should and should not melt teammates; hopefully the following tips will help you design your own tactics in Freeze-Tag.

- When you are fighting with an opponent in the open and a frozen teammate is very close to you, make sure you run towards his frozen body while fighting the opponent. Even if you eventually die, you would have still saved a teammate(s) and still stand a better chance of winning the game.
- When you're the only one left you have to be careful about whom you melt, as the opponents will know where you are as soon as you melt someone. So IF you melt someone, run away as fast and far as you can from the spot. The best places to run to is the places with the least amount of frozen teammates. Because the enemy is most likely to camp at big groups of frozen bodies as they suspect you to go there.
- When there are a lot of enemies around you, don't melt yet as they will know your position. Wait until they move past or away from you before you start melting.
- When 1 opponent is left, they are most likely to run in a circle (thus avoiding your team and going from behind to melt his teammates) thus always check the other way from where your team is going.
- In objective, the bomb can still be planted. Most people use this as a decoy. Thus as soon as the bomb is planted they run away to melt their team. This makes it easy for the enemy to camp with a distance from the bomb because they know exactly where you are and where you're going. So even though planting the bomb as a decoy sounds like a good tactic, it will only work on less experienced players.
- You can use the frozen bodies of the enemies as bait, thus camping and waiting for their teammates to come and unfreeze them (making you able to kill them).
- You can use your OWN teammates as bait as well, camp near the frozen bodies, which will make the enemy suspect there is no one around there (as you would normally attempt to melt the body right away), which makes them drop their guard and you can kill them and melt your teammate after that.
- In some games there are players that tend to stick out of the crowd and kill a lot of people. If they die, try and melt them first (even if this means avoiding other frozen bodies), because it will increase your chances to win, avoid early detection by the enemy (because of the melting) and you can go back afterwards to melt any other teammate.
- Melting people also attracts opponents, so when you know the location of an opponent you can choose to melt your teammate first and right away aim at the location of where the opponent will appear from. The opponent will most likely think you don't know he's there and be less cautious, giving you a slight advantage.



10.1.4 Locating Frozen Bodies (Teammates)

There are several methods of locating the frozen bodies of your teammates. It's important to know where they're frozen to build the best tactic/way of unfreezing them (and who to melt first).

- If your team mate dies, make sure he/she points out their location to you/others. This is a quick way to find out where they are. Though in public servers, there are not many people who actually give out their location when they die.
- Get to know the abbreviations that some Freeze-Tag servers/mods use, which will give the location of the frozen players. For example (in V2):
 - CR = Control Room;
 - CRS = Control Room South;
 - CRN = Control Room North

(A list is available in [Appendix 12](#) for most maps.) Thus you will know where you need to point your laser to melt through doors/walls.

- Use your compass. When your team mate dies and he's spectating his own body, you'll still be able to locate him via the compass as if he was alive. However if they are spectating someone else other than their own body, you won't be able to locate them via compass. If someone is spectating you, your compass will point completely downwards (as if to say that there is someone right behind you). When this is the case, it will be useless to find anyone; you won't even be able to locate living team mates, let alone the frozen ones.
- Players can use taunts to make their location known. If someone is spectating their own body (or if someone else is spectating their body) they can taunt (e.g. V31 = [Yes Sir!](#)) and the taunt will originate from the frozen body. This way you can hear where the bodies are located. However if someone is spectating you, they can give away your position by taunting (and thus let enemies know about your location). Taunting at frozen bodies can also confuse the opponent in thinking that there might be a living person located over there.
- If a person is frozen near a door, they'll be able to open that door by pressing their 'USE' key (default = [E](#)), which will both open the door and make them spectate the next person. If you hear doors repeatedly open, you'll be able to guess that a person is located in a doorway and you'll be able to melt the player through the door. This can also confuse opponents (and team mates) as hearing a door open most of the time means that a living player is there.
- When a player is killed (and thus frozen), the abbreviations at the bottom of the screen will appear darker for a second (to show that team has just lost a living player). When a player is melted, the abbreviations at the bottom will light up (to show the team has just gained a living player).
- If a new player joins a team, he will become frozen instantly (otherwise it would be unfair if a team gained an extra player without any melting). This player will be frozen at the location of the last melted player, thus it happens sometimes that you melt a person, a second later a player joins your team and a new frozen body will appear at the same location. If no one has died yet you'll either be frozen at a spawnpoint or you'll be able to play instantly (depending on the server settings). So if you just melted someone and someone new joins your team, return to the spot where you melted the last player quickly to melt the new player and gain a bigger army!
- A helpful tool has been made by Purple Elephant1au that shows players their own (Freeze-Tag) location on the screen, including the abbreviation. This way, players will learn the locations quicker and know where they are themselves. The [pk3](#) file (& readme) is added within a [zip](#) file to [Appendix 16](#). The file is called: "[Freezetag_location_Helper.zip](#)". You can also download the tool here: <http://www.mohaaaa.co.uk/AAAAMOHAH/content/freeze-tag-location-helper>



10.2 Capture the Flag

Capture the Flag is like Freeze-Tag a mod made by the public and copied from Quake 3 Arena. The goal is to capture the enemy's flag and return it to your own team's flag. Most of the times the first team to gets 4 flags wins the game, or the team with the most flag captures after a certain time limit. Unlike Freeze-Tag it is not played in any competition (which is a shame). Not many servers out there that run this game-type either. To grab and plant the flag, press and hold the 'USE' key (default is **E**).



10.2.1 General CTF Tips

As CTF is not a much played game mode, there are little tips to give; the best tip is to acquire the basic skills needed for general MOHAA. But below a few pointers are given none the less.

- Make sure you have a small group of players guarding the flag (either close-up, from a distance or both).
- Suppressing fire is a must in this game-type. To cover your teammates (when getting the flag and when running away with the flag) it is your duty to make sure no one touches the flag carrier. Thus keep on firing in the area where the enemy is coming from, even if you don't see them fully yet. Make sure you use burst-fire so that your bullets will not run out too quickly.
- When you've brought back the flag to your own, there will be a short timer activated, before the flag is actually captured. This gives opponents a chance to grab their flag back. Make sure you have several people aiming at the flag in this short period of time.
- If the enemy has your flag, and you want to risk getting it back, make a full team assault simultaneously on the opponent. Unless you are way more skilled than the opponent, this is your only chance of getting it back. It is however possible that you leave 1 player behind to guard the flag-spot, in case the enemy has a player near your base, ready to get the new flag.
- If the enemy has your flag, there are mostly 2 main routes that can be taken to return the flag to their base. Unless you know for sure which way they went, cover both routes.
- Don't blindly run after the enemy that has your flag, he will run as fast as you so you have less chance of catching him. Try and popup in front of the flag carrier (flag carriers tend to not take the direct route back to their flag, but a longer 'safer' route to the flag, giving you the chance to popup in front of them!).
- If a flag is dropped, it will eventually return to its base. You can also grab your flag and it will automatically return within a few seconds (which is faster than letting it return without grabbing it). If for some reason you can't reach your flag, because it might be unsafe or too far away, just aim at the flag and kill anyone who comes close until the flag automatically returns to base.
- When you are holding your own team's flag (taken back from the opponent), make sure to run back towards your own base with as many obstacles along the way as possible. This will decrease any chances of you dying and the opponent taking your flag back. The flag will go back to base within a few seconds of holding it, so you won't need to run for a long time.
- As flag positions can alter, and are not always mentioned on screen, tell your teammates where your flag is and where the opponent's flag spawn is as soon as you spawn and see it. This will adjust your teammate's route in the best way possible right from the start.
- When the enemy has your flag, and you're in a position to intercept the flag carrier, it's best to hide and stand/sit still in a corner and wait for the flag carrier to walk by, instead of rushing in with a higher chance of getting killed.
- When you or a teammate has the flag, and you see enemies spawn way back (behind their flag even), don't kill them! (Unless you REALLY have to). Because they will never be in time to get their flag back, however if you kill them, they might get a better spawn and spawn in front of you, giving them a higher chance of killing you and getting their flag back.
- When capturing the opponent's flag & when planting the flag back to your base, make sure you keep moving whilst you're capturing/planting the flag. If you don't, and stand still, an enemy can easily shoot you because you're just a stationary target. Just keep moving around the flag position whilst holding your **USE** key (**E**), maybe crouch or jump sometimes, just to stay unpredictable.



- Sometimes using stealth can be very important. Meaning that it's sometimes a good idea to NOT shoot an enemy and just let them walk by (if they didn't see you). This can help in several ways, e.g. you'll have less resistance capturing the enemy's flag or if an opponent has your flag, you can sneak up on him and surprise him when he doesn't expect anyone there.
- If a flag has been dropped on the ground (flag carrier died), you can either grab the flag by walking through it or by pressing your **USE** button (**E** mostly) from a short distance and you'll grab it. The latter can help you when a flag is behind a railing and/or below you. You'll be able to grab the flag from a short distance without jumping over the railing or jumping down towards the flag. This will save you time and every second counts in CTF when you have the flag. Cause opponents keep respawning and will try to kill you.
- When your teammate has captured the enemy's flag, make sure you (or other teammates) escort them back to your own base to increase the chances of a successful flag plant, and to avoid opponents taking your flag at the same time. CTF is a team effort, remember that!

10.2.2 CTF Values (Times)

In Capture the Flag, a lot of things work on a timer (grabbing a flag, returning a flag etc.). Knowing how long something takes might help in knowing if you'll still be able to capture a flag and/or plant it. The values will be listed below:

Action	Mod Setting	Value
Capture Limit	pointlimit	4 flag captures
Extra Time (tied game)	suddendeath	5 minutes
Sudden Death (no respawns)	fsuddendeath	2 minutes
Captured Flag Countdown	countdown	15 seconds
Capturing Flag	capturepress	2 seconds
Planting Flag	returnpress	1.5 seconds
Manually Returning Flag	returnpress	1.5 seconds
Automatic Returning Flag	friendlyreturn	7 seconds
Ground Return Flag	groundreturn	25 seconds



10.3 Survival Horror

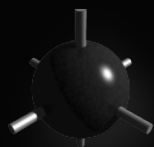
Survival Horror is a mod created by the public. It is somewhat of a Spooky / Halloween mod. Everyone will be placed as an allied (even if you choose axis), then 1 person will be randomly selected to join axis and be 'the murderer'. This murderer is invisible and only has a silenced pistol as a weapon. The murder only becomes visible for a second when he shoots or bashes.



This mod is mentioned in this guide because it has a great practice potential. You can only see the opponent when he shoots, and even then you have to be looking at the correct way to spot him. This will teach you how to listen to your sound, hear the footsteps around you and hear where the shooting is coming from. If you practice this enough, you will be able to pinpoint the exact location of the murderer, just by listening to your sound. It also forces you to get in the mind of the murderer and guess where he is going to walk (or stand still/hide) when you don't hear or see him anymore. It will boost your skills after a while for sure.

10.4 Mods with Mines

There are a few mods out there (like the 'Ranking Mod') that contain mines. Basically you hold your **USE** button (mostly 'E') and wait a few seconds (a bomb timer will show up). After the timer is finished, the mine will be planted either at your feet or the place you aimed at (will be thrown just a meter or 2 away from you max.). It basically works like a 'claymore'. If you ever get to play a mod with mines, try and make the most out of it, because they are really useful.



10.4.1 General Tips for the Use of Mines

Below are some tips to help you devise some tactics with mines.

- Mines will go off when an opponent walks over them (or very close next to them).
- Mines can be deactivated by pressing your **USE** key (mostly 'E') when standing on one. If you notice too late you're standing on one, or you already walked off it, it will explode.
- Mines will explode when you shoot them, or when a grenade explodes near them.
- Do not place mines in open fields, in the middle of roads etc. as they will be easily spotted and either avoided or destroyed.
- Place your mines around corners, behind doors, in little gaps, bushes and any other place where it will not easily be spotted. This will definitely help you increase your kill count.
- You can use mines to protect your back. If they kill someone or if you hear them blow up (without killing someone) you will know your back is not protected anymore and that an enemy might approach.
- It's best to disarm mines (instead of shooting them) to avoid being heard by opponents.
- You can place mines and keep aiming at them, waiting for an opponent to cross it, shoot the mine and take the opponent(s) out with the mine. Aiming and shooting at other people's mines (especially when they are placing them) is also fun.
- If you're on higher grounds (like on top of a building), you can throw mines in front of unsuspecting opponents and take them out.
- Placing 2 mines in the same area will avoid people trying to disarm them, as they will get blown up by the 2nd one when they're trying to disarm the 1st one.



10.5 Base Assault

This mod is based on the Base Assault gametype from CoD: United Offensive. It is played in a variety of modified Single Player maps from MOHAA. The best thing about this is that no one needs to download any extra maps/files, and yet they will still be able to play 'new' or at least different maps than the normal Multiplayer ones.



The mod includes many (drivable & shootable) tanks, jeeps, turrets and you are able to buy upgrades to yourself and to your weapons. You can pick classes like medics and engineers to heal players and repair vehicles respectively.

The objective is to blow up the enemy's base (which consists of 2 static tanks). The tanks first have to be damaged until they are at 0 'health' and afterwards a bomb has to be planted on the tank for it to be completely destroyed (this bomb can be defused!).

This mod is something completely different from the ordinary MOHAA gameplay. It's suggested to everyone to give this a try sometime.

10.5.1 Creating an Account

If you want the server & mod to remember your character you will have to create an account and login in-game every time you are playing. This will save your money and every feature you've bought.

To create an account, open console and type in: `scmd rew_reg Name password`

To login, open console and type in: `scmd rew_login Name password`

For example: `scmd rew_login Shadow test44`

10.5.2 How to Buy & Activate Things?

Before you can activate any upgrades or specials, you will have to buy them first. You will collect money the more kills you make, people you heal, tanks you repair and bombs you plant/defuse.

To buy something, do the following:

- Press **F7** to open the market.
- Use **W** & **S** on your keyboard to scroll up and down the list.
- Press **left mouse button** to buy something.

To activate something, do the following (*you can only activate 6 items at once!*):

- Press **F8** to open your inventory.
- Use **W** & **S** on your keyboard to scroll up and down the list.
- Press **left mouse button** to activate or deactivate something.

10.5.3 How to Call In an Airstrike and/or Artillery Fire?

A few of the specials/extras you can get are artillery fire and airstrikes. After buying and activating them in the menu, you will need to know how to use them. Well below you'll see how to.

Artillery

- Use **binoculars** (Press **7** on your keyboard).
- Aim/look at the location you want to use it on.
- Press your **USE button** (mostly 'E') to activate.

Airstrike

- Use **binoculars** (Press **7** on your keyboard).
- Aim/look at the location you want to use it on.
- Press your **left mouse button** to call in the airstrike.



10.5.4 General Base Assault Tips

As for tips, there will be a few general tips below, but most will be common sense and you'll need to play it to find out more tactics.

- When in a tank, position your tank on a spot where you will be able to shoot the enemy tank first and where you will be able to block incoming shots (behind a hill/mountain etc.).
- Tanks need engineers to keep them at full strength, if you don't see any engineers in your team, become one yourself!
- When getting out of a jeep, first make sure the jeep isn't moving anymore (so stopped completely), otherwise there is a big chance you die when trying to get out of the jeep while it's still moving.
- Snipers are very useful in this game, especially when they increase their ammo and rifle damage (you will be able to buy this in-game). They need to act like real snipers and hide somewhere far away so they can take out any infantry easily without being spotted by tanks.
- As an infantry, always grab a bazooka from a box at spawn point, with these bazookas you'll be able to (help) take out enemy tanks when needed. You can carry your main weapon & bazooka simultaneously.
- Upgrade your player and equipment to give you more advantages and power in specific situations, check [10.5.2](#) for information about upgrading & activating abilities.
- When an enemy is going out of his own tank (to repair it, run away or any other reason), shoot the enemy and try to take over the tank. The team with more tanks has a greater chance of winning.
- Call in airstrikes and artillery to destroy tanks, kill players or defend planted bombs from a distance, thus not bringing yourself in danger. Check [10.5.3](#) for information about airstrikes & artillery.
- Try and use airstrikes and artillery on tanks that aren't moving or predict where they are moving towards when the airstrike/artillery actually hits. This to make sure you hit your target and not waste an airstrike/artillery.
- Dodge mortars by checking where explosions on the battlefield land, then avoid that area.
- Dodge airstrikes/artillery by locating people that are looking at you while being holstered. This most likely means they are calling in an airstrike/artillery at your position. You'll have a few seconds to get away from that spot quickly before the airstrike/artillery lands. When someone calls in an airstrike or artillery, a black smoke will appear on the spot it was called in, be on the lookout for that smoke.
- Cover teammates that are planting bombs and keep an eye on the bomb (preferably on a spot where you're hidden or just far away), you'll be able to take out enemies that disarm the bomb.
- When you're out of bazooka ammo (ammunition), drop your bazooka on the ground before you pick up another bazooka from a crate. If you keep your own bazooka, the extra bazooka you will pick up will have less ammo. If you drop your bazooka first, the new bazooka will have full ammo (6 shells).
- Enemy tanks (including the static ones at their base) and cannons can only be damaged by explosions, such as:
 - Another tank (*most damage*)
 - Flak 88 & Nebelwerfer (Cannons)
 - Bazooka
 - Airstrike
 - Artillery fire
 - Grenade (*hardly any damage*)
 - Mortars



10.6 Escort the Tank

Escort the Tank (or Escort the Vehicle) is a gametype where one team has to escort & defend a tank to a predetermined location (mostly starting in your own spawn, with the finish being in the enemies' spawn). The enemy obviously has to stop you from reaching the finish (glowing red spot on the ground). This gametype is also seen in other games such as Team Fortress 2 and Overwatch.



To escort the tank, all you have to do is stand next/close to the tank. You can be left, right, behind and in front of the tank to make it move. HOWEVER standing left and right of it makes it go faster than when you're standing behind or in front of it (the latter will cause the tank to stutter whilst moving and thus it won't be as smooth and fast as standing left or right of it).

Now the tank will also shoot at the enemies. This means that when the escorting team is pushing the tank, the tank will help by randomly shooting at enemies.

Spawns will change when the tank has been moved to a certain spot (checkpoint), thus making sure the escort/defending team will spawn closer to the tank and the attacking team closer to the finish (in order to stop the incoming tank).

The tank can be stopped in 2 ways:

- Kill the escort (players next to the tank, making it move forward)
- Grab a bazooka, shoot the tank twice (2x) and it will be destroyed until the escort repairs it

Bazooka's can be found in several (red) cabinets located around the map (perhaps scout the maps in advance to locate all the cabinets). Press AND hold your **Use** key (default = **E**) for a couple of seconds until the cabinet opens up and a bazooka appears, now press **E** to grab the bazooka. You ARE able to carry your main weapon and bazooka at the same time, however when you drop either one of them, you cannot pick them up again and thus only hold one. You can only hold 2 main weapons if you grab the bazooka from a cabinet (not the ground).

Tanks can be repaired by the escorting team by pressing AND holding the **Use** key (default = **E**) when standing next to it, either on the left or on the right side of the tank.

Per map, both teams will be the escorting team once. But there can only be 1 winner per map. This means that if the first team makes it to the finish, the second team has to beat the time it took the first team to get there. If the first team doesn't make the finish, the same rule applies, beat the time it took the first team to get to the spot where they ended.



10.6.1 General Escort the Tank Tips

- When on the escort team, always try to have at least 1 person at the tank at all times to keep it moving. It's possible that person will have to dodge grenades and it's your own choice if you want to dodge away to avoid them or take the risk and keep moving the tank.
- When on the escort team, try to have most of the team near the tank (and behind cover!) whilst one or more snipers stay far behind in order to snipe down the enemy team without much resistance as they will be focusing on the tank.
- When on the escort team, it might be viable to have several players move ahead of the tank in order to clear the way for the tank, making it easier for the player escorting the tank.
- When on either team, most maps have the option to flank your opponent and thus get behind them and keep them occupied by shooting the opponent in the back.
- When on the attacking team, try to have one person destroying the tank at all times and thus keep getting new ammo for the bazooka. This will stop the defending team in their tracks and it's really annoying.
- When on the attacking team, throwing grenades behind the tank is a great way to kill anyone moving the tank forward and thus getting the tank to stop moving.
- When on the attacking team, try to get the defending team in a spawn trap by covering all sides of their spawn and keep killing them, making them unable to get to the tank.
- The tank will not shoot the attacking team if they are behind cover (behind a wall or rock), the tank will not spot them.
- The tank will not shoot at enemies that are close (next) to the tank, thus you'll still be able to ambush/flank the tank and the escort team from close range.
- If you get a bazooka from a cabinet, whilst you already have a bazooka on you; you'll only get 1 new round (rocket). However, if you drop your bazooka and get a new one from the cabinet, you'll get 2 new rounds (rockets).



10.7 Useful Admin Mods & Tools

There are a lot of useful (admin) mods & tools out there, and I definitely can't name them all, but I'll list a few just so you'll have an idea of what's out there and maybe you'll even want them for your own server. There are a few more listed throughout the guide itself that are not mentioned here.

All files mentioned below and many, many more are listed and downloadable on the AAAA Database. Found here: <http://www.mohaaaa.co.uk/AAAAMOHAA/content/downloads-and-resources>

Click on the (yellow) name to go to the download page.

- [Admin Pro & Jim's Punishment Mod](#) // A package of useful mods, tools & rcon commands
- [Advanced Weather Mod](#) // You can change the day/night, fog, rain etc. in maps
- [Anti-Bad Commands](#) // An Anti-Cheat to disable cheat commands
- [Anti-Camper V6](#) // Anti-camp mod, more available on the database
- [Anti-Cham](#) // Anti-Cham mod, will block simple chams/cheats
- [Autocoord](#) // Get locations (coord) quick and easy with this tool
- [Automatic Spawn Creator](#) // Useful tool to easily create spawn points
- [Beach Soccer](#) // Play Beach Soccer with a ball & goals on Omaha
- [Binocular Airstrike](#) // Use the binocular to call in airstrikes in maps
- [Christmas Tree](#) // Set-up a Christmas Tree in your maps
- [Clan Tags Mod](#) // Place huge visible clan-tags in your maps
- [Drivable Tanks](#) // Place drivable tanks in the map
- [Elgbot](#) // A Player Stats tool, multiple versions available
- [Horizontal Ammo HUD](#) // The ammo bar is shown horizontally instead of vertically
- [IP 2 Country](#) // This will show the player's country in-game
- [JH Admin & Punishment Menu](#) // An admin menu combined with Jim's Punishment menu
- [Message Center](#) // You can control and create server messages on screen
- [Mine Mod](#) // Adds 3 types of mines to the game
- [Next Map Info](#) // You'll see on screen what the next map will be
- [Player Locator & Info](#) // Displays current player location, facing angles and more
- [Quake Style Health Meter & Ammo Bar](#) // Changes the health & ammo bar into Quake style ones
- [Realistic Loading Screens](#) // New, realistic loading screens for the stock maps
- [Rewards Mod](#) // Get Killstreak rewards (airstrike, dogs, helicopter)
- [RoempaZ Modern Weapon Pack](#) // This pack will change all weapons into modern ones
- [Scapp-host](#) // A new, modern auto-kick and ban tool (many features)
- [Skeleton Hand Cursor](#) // A nice skeleton hand mouse cursor to replace default
- [Spawn Protect](#) // A mod that will protect players when they spawn
- [Team Player Counter](#) // Shows how many players are alive per team on screen
- [Trap Shooting](#) // Launches disks to shoot, good for target practice
- [Universal MapFix](#) // A mapfix package that includes several known mapfixes
- [Weapon Limiter](#) // Pick which weapons are allowed in the server and more
- [Weapon Shop Mod](#) // Buy weapons from crates when you've earned enough
- [{SFX} BattleZone Creator](#) // Useful tool for modders (can add lots of items)
- [{SFX} Useable Flak88 Script](#) // You can place a useable (shooting) Flak88 in the map



11. Bug Info & Fixes

11.1 Minimize / Maximize

Sometimes it could occur that people are having trouble to minimize their game, or simply to go back to windows without having to close the game. I'll just list a few options for people to use or tryout if they ever find themselves in such a situation.

- **ALT + ENTER** (to minimize/maximize, make sure you're in the game when maximizing again)
- **ALT + TAB** (this mostly works for Steam games, but who knows..)
- **Windows Button** (the windows button on the keyboard could return you to windows)
- **CTRL + ALT + DELETE** (Opening task manager, and thus returning to windows)
- **5x SHIFT** (press SHIFT fast 5 times and it will throw you to your desktop by an ignorable popup)
- Console: **r_fullscreen 1** (restart game afterwards, unnamedsoldier.cfg must not be on Read-Only)
- Unnamedsoldier.cfg: **seta r_fullscreen 1** (save your config and place it back on Read-Only)

11.2 Spinning

If you're spinning around and around it's possible that either an admin forced this on you or there as an anti-doorblock on the server and you were sitting next to a door when the previous round finished and respawned spinning. Fixing this is simple; first check what direction you're spinning towards. Then type in console:

- +right** (if you're spinning to the left)
- +left** (if you're spinning to the right)

11.3 Unable to Crouch/Duck & Walk Silent (CTRL & SHIFT Button Not Functioning)

Either your buttons got unbound (e.g. by an admin tool) or your game is just momentarily bugging.

If it's momentarily bugging it will be fixed by doing the following:

- Minimize the game (**ALT+ENTER**) and maximize it again (should fix this bug)
- If your buttons got unbound you can check paragraph **8.1** & **8.3** about securing your binds. Via **options -> controls** in-game you can reset your controls again. You can also change this in your **unnamedsoldier.cfg**. A default bindlist is also included in **Appendix 4**.
- Sometimes a recent X-Fire update makes this happens as well, you have to either turn off X-Fire or go to **X-Fire -> Extra's / Tools -> Options -> Xfire In-Game** and empty/uncheck the box in front of **'Enable Xfire In-Game'**.

11.4 Screen is Acting Weird

If your screen is acting weird (e.g. keeps getting blurry or weird colours like something is up with the graphics) you might have a problem with your graphics card.

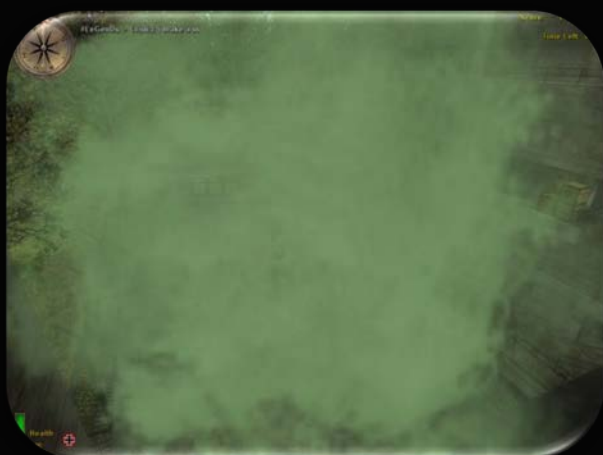
- Now every PC nowadays should be able to run MOHAA smoothly, but if for some reason your graphics don't seem in order you can try typing the following in console: **vid_restart** (this should restart your in-game video settings/graphics)
- If this doesn't seem to work you could try removing dust from your PC, otherwise something might be up with your graphics card.



11.5 Blood, Smoke or Glass on Screen

When you have a red blood-spat, green smoke/fog or white cracked glass/snow on your screen when entering a server, the server is running an old version of the anticham mod (causing false-positive). There are 3 ways to fix this:

- Remove any mods you might have in your main that could cause this (e.g. blood mod) and make sure you have no Spearhead or Breakthrough files in your MOHAA folder. (Or remove the below files in the specific mods.)
- Contact the admin that he is running an old version of the anticham and tell him to get an updated version on xNULL or AAAA.
- You can also tell him to delete the following lines from [showcham.scr](#) in the anticham:
 - o [textures/models/ACD/ACDblood_splat.tga](#)
 - o [textures/ACD/ACDblood_long.tga](#)
 - o [textures/sprites/hrpuffnstuff_german.tga](#)
 - o [textures/window/window4_broken.tga](#)
 - o [textures/models/weapons/F1_grenade.jpg](#)



Examples of false-positives (smoke on screen & broken glass on screen). This is NO cheat.

11.6 Coloured Screen

When your screen is coloured (completely blue, yellow, green, red or pink etc.) or showing a weird picture of some sort it means you're hacking. You have been caught by an anticham mod and you should remove your cheats and play fair!

11.7 Buttons/Keys Not Working Anymore

Either your keyboard just got detached from your PC or your settings are messed up (could be by an admin). If your buttons got unbound you can check paragraph [8.1](#) & [8.3](#) about securing your binds. Via [options](#) -> [controls](#) in-game you can reset your controls again. You can also change this in your [unnamedsoldier.cfg](#). A default bindlist is also included in [Appendix 4](#).

11.8 Weapon Not Showing

There are 2 explanations for your weapon not showing on the screen (although you can still shoot).

- Your game is bugging, by waiting 1 round or typing [vid_restart](#) into console, should fix the problem.
- Your weapon-view settings have been altered, you can change these in-game at: [menu](#) -> [options](#) -> [advanced](#) -> [Model View](#), put on [Full](#) (or [Only Weapon](#)) to see your weapon.



11.9 Enable Console

Some people might have trouble to open console because either they never opened it or it suddenly isn't working anymore. The default key for console is the button below Escape which is ``` or `~`.

If this doesn't work you either never enabled it or someone messed with your config.

- To enable console go to [menu](#) -> [options](#) -> [advanced](#) -> and check [console](#) on.
- To check or change the button for console go to your [unnamedsoldier.cfg](#) ([mohaa\main\configs](#)) and find "[toggleconsole](#)".

11.10 Players are Flashing/Bugging Around

If you see players flashing around walls and other objects (like being invisible for a second), it will mean that the server is running the 1.12 (Reborn) patch and has the Anti-Wallhack setting enabled. This will not completely stop wallhackers but it will render their hacks pretty much useless. The creators of the patch are still working out how to avoid this 'flashing' bug.

If you do not like playing like this there are 2 things you could do:

- Ask the admin to put [sv_antiwh](#) on [0](#) (puts off the Anti-Wallhack).
- Choose a different server to play on.

11.11 Bug Score

Unfortunately a bug in MOHAA is that, when you time it right, you can transfer your kill amount of the map to the next map. Thus you'll end up with a score advantage to others. As a player you can just type reconnect into console and you'll reconnect to the server with a score of 0. As an admin there is nothing much you can do about it besides warning/kicking these players. You could also put [sv_zombietime](#) on [1](#) but this will also be on influence on players with a bad connection and they won't be able to enter the game easily.

Luckily there's a tool out now (by Purple Elephant) that is able to fix the 'bugscore' issue. This tool ONLY works with servers that have the [Reborn \(1.12\)](#) patch installed (which only works in AA, NOT in SH or BT). In [Appendix 16](#) a rar file is added called [PurpleEventhandler_v1.02.rar](#). Open this and there will be a readme file and a pk3 file ([zzzzzzzPurpleEventhandler.pk3](#)) that you'll have to place in the [mohaa\main](#) folder of your server. To run this mod, add the following line to your [dmprecache.scr](#):

- [exec global/eventhandler.scr](#)

This mod will help you organize the events that come with Reborn. Including; checking a player's kills upon connection/map start. If the player has a score of >0, those kills will be taken away and reduced to 0 again. Check the [Readme](#) file for more information!



11.12 Server Time-Out / Can't Connect to a Server

Sometimes it happens that you're unable to connect to a server, this could have various reasons. First when you're connecting to the server, open console to see if any error messages appear (like being banned/kicked or server is for high/low pings only, this info will help if you post your problem on a forum). There are several ways to fix this problem.

- Try reconnecting to the server (simply type [reconnect](#) into console).
- If this happens on every server, make sure you have the 1.11 patch installed as almost every server runs the 1.11 patch (to see your current patch version type '[version](#)' into console). You can find download links for the 1.11 patch at chapter [8.16](#).
- Check to make sure the server you're trying to join isn't across the planet (your ping would probably be too high to be able to connect).
- Check if your [Net Connection](#) is set to the correct value (should probably be on [xDSL](#) or [LAN](#)). Net Connection can be found/changed at [Multiplayer](#) -> [Multiplayer Options](#).
- If your '[rate](#)' is low (e.g. [5000](#)), try putting it on [30000](#) and see if it helps.
 - o [Console](#): [rate 30000](#)
 - o [Unnamedsoldier.cfg](#): [seta rate 30000](#)
- Tell the server admin to put [sv_maxping](#) on [0](#) (this mostly fixes the problem).
 - o [Console](#): [rcon sv_maxping 0](#) (*this will disappear when server restarts*)
 - o [Server.cfg](#): [seta sv_maxping 0](#) (*this setting will stay forever*)
- Restart your modem/router and see if this fixes the problem.
- Restart your PC and see if this fixes the problem.
- If you are running any downloads or a lot of programs; turn them off.
- Make sure your Firewall and/or Anti-Virus accepts MOHAA.
- If all the above fails check with the server host to make sure you're not banned or ask for help on a MOHAA forum.

11.13 Disconnected from Server

It's possible that you suddenly get disconnected from a server; this could have various reasons (and thus various solutions).

- You got kicked/banned from the server (open console, scroll up and see if it says you got kicked or disconnected). Reconnect to the server and look for any console messages about you.
- You got kicked for high ping (same as above, check your ping as well to see if it's the ping kick that could have done this).
- The server crashed/stopped (most of the times you'll see a little green disk in the bottom of your screen and you're unable to move until you get disconnected). Check via your game-launcher (X-Fire, HLSW, GSA, GSC etc.) to see if the server is still active.
- The server changed to a custom map you do not have (reconnect to the server, if the map won't even load then it's either a custom map or the server stopped, so better check via your game-launcher to see what map the server is running, if you don't have it, go to site of the server or Google the map).

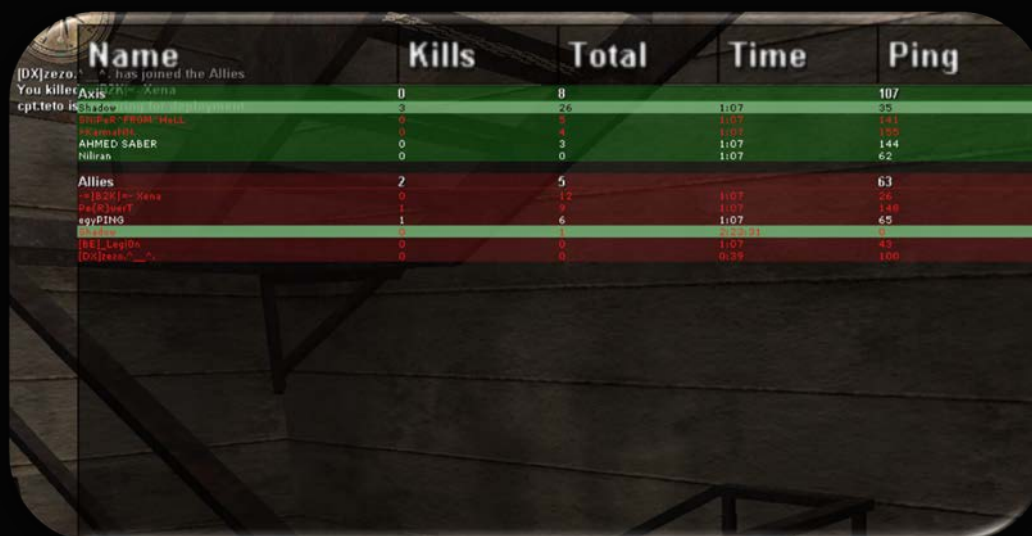


11.14 Duplicate Names

Sometimes it happens when you press TAB in-game it will show your name twice. It could be a name-faker but if the name is shown in a grey bar (like your own name) it means the server thinks that player is also you.

This is a bug in the MOHAA engine, where the server by mistake assumes that player is you, although the actual player is probably still connecting or is timed out, and for some reason it picks client 0 in the server and assumes that spot belongs to you.

As soon as the player truly connects or someone else fills that spot the bug will disappear, it's not a big issue, normally after a minute or the next round it will have disappeared.



Name	Kills	Total	Time	Ping
[DX]zero	0	8	1:07	107
You killer Axis	0	26	1:07	35
cpt.teto is	0	5	1:07	141
Super FROM Hell	0	4	1:07	190
AXMED SABER	0	3	1:07	144
Niliran	0	0	1:07	62
Allies	2	5	1:07	63
[X]00K (= Xena	0	12	1:07	36
Red3net	1	9	1:07	140
egyPING	1	6	1:07	65
[X]00K (= Xena	0	0	1:07	45
[DX]zero	0	0	0:39	100

Example of duplicate names; notice the 2 green bars as if it was both me.

Notice how cpt.teto is preparing for deployment, but he's not in the server yet. Well that's the 'copycat' until the round ends.

11.15 Hacked Server

It's possible that when you own a server, some kids try and take it over. There are several things an admin needs to do to fully protect their server(s).

- Install the 1.12 patch (www.x-null.net) (protects you from most crashes/exploits).
- Make sure you regularly change your rcon password (make it a difficult/long password).
- Make sure you set `sv_allowdownload` to 0 (to stop people from getting your rcon).
 - Via your `server.cfg` (set `sv_allowdownload 0`). Don't do it via rcon!



11.16 Stuck

It could happen that you'll become stuck in a certain position. This could be by doing a weird move in a weird place or when 2 people try to jump to the same spot. Occasionally it happens when spawning for the first time as well. Ways to get out of this position are listed below.

- Try pressing **Escape** 2x and see if you can walk now.
- Try jumping or crouching and see if you regain control.
- Go to spectator mode and rejoin.
- Type: '**kill**' in console to commit suicide.
- If all else fails try to reconnect to the server.



A situation where 2 players got stuck, trying to climb the ladder at the same spot.

11.17 Mouse in Screen

When your desktop mouse is on your screen in-game, your game probably won't respond to any commands. This could happen when you just maximized your screen after it being minimized. To fix this do the following:

- Minimize your game again and click on a different program that you have running (e.g. xfire, TS, web browser). If you are unable to do so than do it via your taskbar (press **CTRL+ALT+DELETE** simultaneously) and activate a different program. After you've done that click on MOHAA again and it should function normally again.
- If the above doesn't work than try to close MOHAA and restart it again.

11.18 Popup

A popup when gaming is very old-school but it might happen from time to time. A popup is a box that 'pops up' on your desktop either containing a picture or a message (or both). This could be a valid popup (msn, windows) or spyware. To get rid of any chance of popups do the following:

- Switch off MSN or put your status on busy
- Disable automatic windows updates
- Disable any program that gives you a popup
- Close your web browser
- Clean up your PC (anti-virus, anti-spyware & CCleaner)
- Get a good popup blocker



11.19 Being Hit without Losing Health

Situations might occur where you hit someone (or get hit yourself) without that person (or yourself) losing life/health. This has most likely something to do with the 1.12 (Reborn) patch with the Anti-Shoot Through Wall Hack setting, it stops players from shooting through walls and disables the bullets. It's possible that when clipping or coming around a corner that the bullet is disabled because the weapon is too close to the wall and the server assumes it's trying to shoot through a wall and thus your hit doesn't count. To avoid this either;

- Ask an admin to put `sv_antistwh` on 0 (probably won't happen).
- Play on with the knowledge that rare situations will occur that the damage will be negated.
- Leave the server and join a server without the 1.12 patch.

Note: When this occurs, the server's logfile will write:

"Reborn Patch: Possible STWH Detected for *name* Damage set to 0!"

This is mostly considered a False Positive, so don't assume the player is cheating, but just had his weapon too close to the wall whilst shooting.

11.20 Getting Teleported

When you get teleported in a map it could have various reasons. Either an admin is messing with you and is teleporting you or someone is lod_spawning you. The following options will stop it from happening:

- If an admin is doing it ask him to stop it.
- If you are getting lod_spawned ask the admin if he can install an anti-lod_spawn mod (e.g. the 1.12 patch).
- Only `client 0` can get lod_spawned so leave the game and wait till another person joins the server, he will take the lowest client spot available (0) so he will be the next target and you can safely rejoin.
- Or simply leave the game and join a different server.

11.21 Slash (/)

The slash symbol (/) is a symbol often used in MOHAA. When you have trouble with not getting something to work, make sure this symbol is not in front of your text.

- This symbol in front of your name makes your name invisible in-game.
- This symbol in front of any setting or script will make the setting/script invalid.
- This symbol will not work in console (unlike Q3 or CoD).
- This symbol is often used behind settings/scripts to give a brief explanation about the specific setting/script (as it will not interfere with the setting/script in that way).

11.22 Getting Kicked for Stufftext Command Cheat / Bypass

This is mostly a bug with the old versions of the 1.12 (Reborn) patch. However if the newest version is running than it's likely that the person is actually using a stufftext command cheat, if this is not the case than contact xNULL and work out the problem. If an old version is running, an admin can do one of the following things:

- Update the 1.12 (Reborn) patch.
- **Console:** `rcon sv_stufftextdetection 0`
Server.cfg: `seta sv_stufftextdetection 0`

11.23 Recoil/Aim Problem

If there is something wrong with the recoil or aim of the weapon it could be that a setting of the 1.12 (Reborn) patch is bugging a bit (this should not matter in Sniper Only), to fix this:

- **Console:** `rcon sv_recoilemulation 0`
Server.cfg: `seta sv_recoilemulation 0`



11.24 Sound Bug

If the sound is bugging a bit it could be that the 1.12 (Reborn) patch sound setting has altered the sound. (This is used as an anti-sound hack.) To fix this, try the following (as an admin of the server):

- Console: `rcon sv_sounddistance 8000`
Server.cfg: `seta sv_sounddistance 8000`

The `sv_sounddistance` cvar has currently been removed from the latest Reborn patches and does not work anymore!

11.25 Reborn Auto-Update

If for some reason the auto-update of the 1.12 (Reborn) patch is messing up your server you can fix it by doing the following:

1. Console: `rcon sv_updatedelay 65000` (value = max. hours before the next update).
Server.cfg: `seta sv_updatedelay 65000`
2. Update the patch manually in the future.
3. Restart the server and the issue should be resolved.

Next to this, you could also try and **force the auto-update** by using the following command ingame:

- Console: `rcon forceupdate` (for version 1.116 and above)

This will force a check for latest updates and will update the patch on the next map change.

For versions under 1.116, you will need to manually change the file: `update_reborn.txt`, located in your base `mohaa\` folder (not main folder).

Inside it will be a date and time in the following format:

`18/48/40/08/08/2016`

To force update, change the YEAR to a year before, so with above example it would be:

`18/48/40/08/08/2015`

You then save the `update_reborn.txt`, restart server, then change maps a FEW times to make sure it has checked and updated itself, to check type: `patchver` into console and it should display current version.

11.26 Mods on Server Not Working

If you add mods to your server but they don't seem to work, it could be because of various reasons.

- Mods are enabled in alphabetical order so make sure the mod is at the end of the list, to do this add 'zzz's' at the beginning of the mod (e.g.: `zzzzzzzz_sniperonly.pk3`).
- If the above fails, it is most likely that 1 or more mods are conflicting with each other, probably because they are using some of the same commands/scripts etc. You could find out which one by creating a default server and adding the files 1 by 1 while testing it out every time you add a file. When you know which is conflicting, try to edit the file.
 - o You can also open the (pk3) mods via Pakscape and see if there are any scripts with the same name, e.g. `mike_torso.st`, and find the differences and try to merge the 2 files together.
- If you can't find the problem either Google it or post a message on a MOHAA forum.



11.27 Kicked for Malicious Command

If you're playing on a server with the 1.12 (Reborn) patch running, you might every now and then come across this message being displayed in the server when someone is getting kicked. It means the player has used a single player cheat command; they do NOT work in multiplayer so in theory they are harmless. It's possible that the client has binded these commands and pressed the wrong button and thus got kicked. These commands are for example: `dog` (godmode), `noclip` (walking through walls) or `wuss` (unlimited ammo). Next will follow the client-side and server-side fixes:

- Make sure to check your `unnamedsoldier.cfg` and remove any sort of the above binds.
- Check your `mohaa\main` and remove any unwanted/suspicious (pk3) files.
- **Console:** `rcon sv_kickbadcmd 0`
Server.cfg: `seta sv_kickbadcmd 0`

11.28 Keyboard is Mixed Up / @ in Console

It could happen in any program or game that for some reason the symbol buttons on your keyboard seem to be mixed up (like `?` becomes `=`). At the same time if you open console a '@' will appear, while you didn't type that at all.

- To fix this simply press `CTRL+SHIFT` simultaneously.

11.29 Invisible Players at New Map Start

A bug that probably everyone has noticed within the years is that sometimes when a new map starts, some players are invisible. Their bodies are still at spawn and seem to be pinged. The server most likely sent wrong information to you as a client and makes your client think the players are pinged while they are walking around and invisible to you. It is also possible that an admin changed the `sv_antiwh` to a different value. To fix this you can do 1 of the following:

- Open `console` and type in: `vid_restart`
- Reconnect to the server
- Open `console` and type in: `rcon restart` (admin only)



11.30 Green Bar on Desktop after Game

It could happen when having played MOHAA and you exit the game; that suddenly a big (green) bar appears on your screen/desktop, which messes up your entire desktop. There is uncertainty of the cause yet, but to fix this; simply open MOHAA again and right away disconnect/quit the game and then when you get back to your desktop the green bar has disappeared.

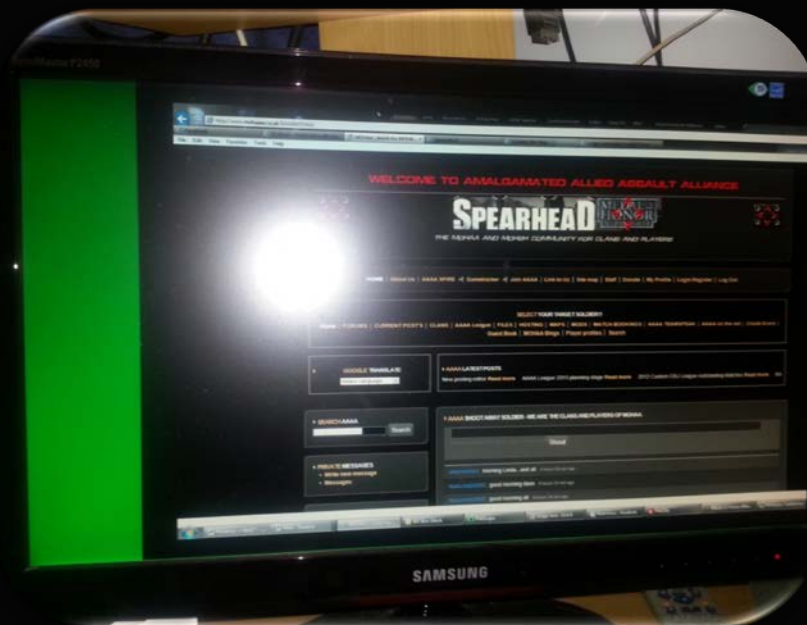


Photo of a screen & desktop after closing MOHAA (a screenshot wouldn't pick up the green bar).

11.31 The Bridge on the Map 'The Bridge' is Invisible

It used to happen to me a lot in the past that when the server turned to The Bridge (obj/obj_team4) the bridge was invisible to me, thanks to this bug I could also see through the sewers and bit of the map (when standing below the bridge, in the water). This is not a big issue as it goes away the next round. But you could always reconnect or ask for a map restart. Typing `vid_restart` in console might work as well.



Was able to dig up an old screenshot where the bridge was invisible to me.



11.32 Pinged Out / 999 Ping

When someone is pinged out, their ping is 999. This also means that they are not really in the game, but the server still thinks they are in the game. The players could have crashed or just have left the game during a bad moment (e.g. map switch). You can just shoot the pinged bodies without a problem. To get rid of these pinged out players, an admin can do the following:

- Use high ping kick to kick these players (1.12 patch, scapp-host, CK Autokick)
- Put [sv_zombietime](#) on [1](#) or [2](#) (time a dropped client stays connected, in minutes)
- Put [sv_timeout](#) on [120](#) (or lower/higher) (seconds before kicking after no commands have been sent)
- Put [g_inactivespectate](#) on [80](#) (or higher/lower) (seconds before you're forced to spec for inactivity)
- Put [g_inactivekick](#) on [120](#) (or higher/lower) (seconds before a player gets kicked for inactivity)

All settings can be placed in [server.cfg](#) as long as you put [set](#) or [seta](#) in front of it.

Example: [seta g_inactivespectate 80](#)

11.33 Unable to Shoot through Window

1 issue in the 1.12 (Reborn) patch is that you can't shoot through windows until they are broken. In all weapons this is less noticeable seeing as you can spray quickly with an MG through the window or throw a grenade through it (which breaks the windows instantly). But when using a sniper you actually have to hit the window 3 times before it breaks and before you can shoot people or be shot at. Luckily thus far this issue is only a problem on [The Bridge](#) ([obj/obj_team4](#)) and the DM version [Crossroads](#) ([dm/mohadm4](#)) as none of the other maps use these kinds of windows. The bug is caused by the bug-fix where you were able to shoot through the black windows on the map. It does however present new tactics as you can stand in front of the window and wait till people shoot at you, you can easily spot them and return fire as soon as the window is actually broken.

NEW REBORN PATCH HAS THIS BUG FIXED, SO DOWNLOAD IT TO FIX THIS ISSUE

11.34 MOHAAC Infractions

MOHAAC could give you innocent infractions, but having infractions looks bad none the less, so trying to avoid infractions is always a good thing. Below is a list with some tips how to avoid infractions on MOHAAC:

- Remove any and all '[Aliases](#)' you might have at the bottom of your [unnamedsoldier.cfg](#) before installing MOHAAC.
- During installation, make sure you do what the installation says every step of the way.
 - o This means you need to let MOHAAC make your MOHAA stock.
 - o This means you need to use the [config fixer](#).
 - o This means you need to use the [infraction fixer](#). (This is to make sure all your settings/commands are legit.)
- When you play MOHAA with MOHAAC for the first time, it will ask you to install the [mohaa.exe](#) from MOHAAC; you NEED to do this to avoid an infraction. The mohaa.exe from MOHAAC also has a recording ability and the no-cd crack like other mohaa.exe versions, so don't worry about that.
- Make sure you always close MOHAA itself before you close MOHAAC.
- Make sure you let MOHAAC upload the screenshots & demo's that were just created while playing MOHAA, before you close MOHAAC.
- Make sure you didn't put any extra files in your main (maps, skins, mods), because MOHAAC will pick these up and will show them as an infraction.
- Make sure you close your web-browser as well, as some sites (like xNULL) will be flagged as a potential threat.
- Make sure you run MOHAA from the same place as you've filled in during the installation of MOHAAC.

There are most likely some more innocent infractions, look on the MOHAAC forums for any more issues + fixes, and if you have any issues yourself then feel free to post it on the MOHAAC forum.



11.35 No X-Fire or GSC and/or TeamSpeak during MOHAAC

It's possible that you can't enter a game anymore via X-Fire or GSC and/or unable to talk on TeamSpeak when you're running MOHAAC. There is a simple solution to fix this. Make sure you run X-Fire and/or TeamSpeak as an administrator, it will work afterwards.

(Right click X-Fire/TeamSpeak icon -> Properties -> Compatibility -> Run as Administrator -> Apply)

11.36 MOHAAC Installation

During the installation of MOHAAC, several issues could occur that would prevent you from installing it. To avoid these issues try the following:

- Disable Anti-Virus & Firewall (or make an exception for MOHAAC in these programs).
- Install [.NET Framework 4.0](#).
- Run MOHAAC as an administrator (and perhaps in a different compatibility mode).
- MOHAAC does not work in Windows 8, so downgrade if needed.
- If MOHAAC stops working after MOHAAC installation and it gives you an error about 'Compatibility' issues and about 64/32 bit systems. Check the size of your [mohaa.exe](#) (in [EA GAMES\MOHAA](#) folder). If it's too small (correct mohaa.exe is around 1.8 MB) then ask a friend to send you their copy of the mohaa.exe they got from MOHAAC. For some reason MOHAAC did not completely download/install the correct mohaa.exe, thus ask someone else for their valid copy.

11.37 MOHAAC X-RAY

There is a possibility when using the [Demo Theater](#) option in MOHAAC (to watch demo's) you leave behind a file called "[zzzmohaacxray.pk3](#)" in your [MOHAA\main](#) folder. This happens when the Demo Theater has not closed properly. Make sure you always close the Demo Theater before closing MOHAAC. If you're not sure if it closed properly, do the following:

- Whenever you've used the Demo Theater option in MOHAAC, check your [MOHAA\main](#) folder (after closing the Demo Theater) and make sure the following file is not in there: [zzzmohaacxray.pk3](#), if it is, remove it!
- MOHAAC will count this file as an infraction and possibly a cheat, which can result in a ban. Always make sure this file is NOT in your main folder.

11.38 MOHAAC Announcements

When playing with MOHAAC it likes to announce through the game and through [X-Fire](#) that you're using MOHAAC and the number of infractions you have. Some people might find this annoying, so to reduce these announcements you can untick / check off the following:

- Go to [Utility](#) -> [Options](#) -> [Broadcast Status to In-Game Chat](#)
- Go to [Utility](#) -> [Options](#) -> [Update Xfire Status](#)
- Go to [Utility](#) -> [Options](#) -> [Enable Routine In-Game Status Updates](#)

11.39 "MSG_ReadDeltaEntity: unrecognized entity field type 23283 for field 201"

This error may show up in the out-of-game console (after MOHAA has crashed). It seems to be caused when your connection is slightly low or unstable. Or when the server has been modded big time and too many entities and lag cause you to get this error. To fix this do the following:

- Simply wait a minute or so and try again.
- Try to join a different server.
- If you can connect, quickly open console and type in: [reconnect](#) (before the game crashes)

11.40 "MAX_PACKET_USERCMDs"

When you open console and this message is just spamming around in it, there is an issue with the packets you're sending to the server, you probably changed 1 of the following commands:

- [cl_maxpackets](#) (try between [15 – 100](#), most of the times [30-100](#) is stable)
- [cl_packetdup](#) (try between [0 – 3](#), most of the times [1](#) is stable)



11.41 "GLW_StartOpenGL() - could not load OpenGL subsystem"

This error may show up in the out-of-game console (after MOHAA has crashed). Errors like this mostly show up after you have reinstalled your OS (Operating System). The issue here is, is that your video card driver is outdated. However there might be a slight chance this error comes up out of nowhere; in this case it would just be a bug. So the solutions are as follows:

- Try restarting your PC and/or reconnecting to the server (or other server).
- Update video card drivers (available on the manufacturer's site).
- Update your Direct-X.
- Put your in-game resolution lower, by opening your [unnamedsoldier.cfg](#) and change:
 - o [seta r_mode 7](#) (try lower values as [6](#) or [5](#) if it doesn't work)
- If you have Win7, Win8 and/or Intel HD Graphics card, checkout the following specific fixes below in [11.42](#).
- If you don't know what graphics card you have, check [11.42.1](#) for help on this.

11.41.1 Resolution List & Bug

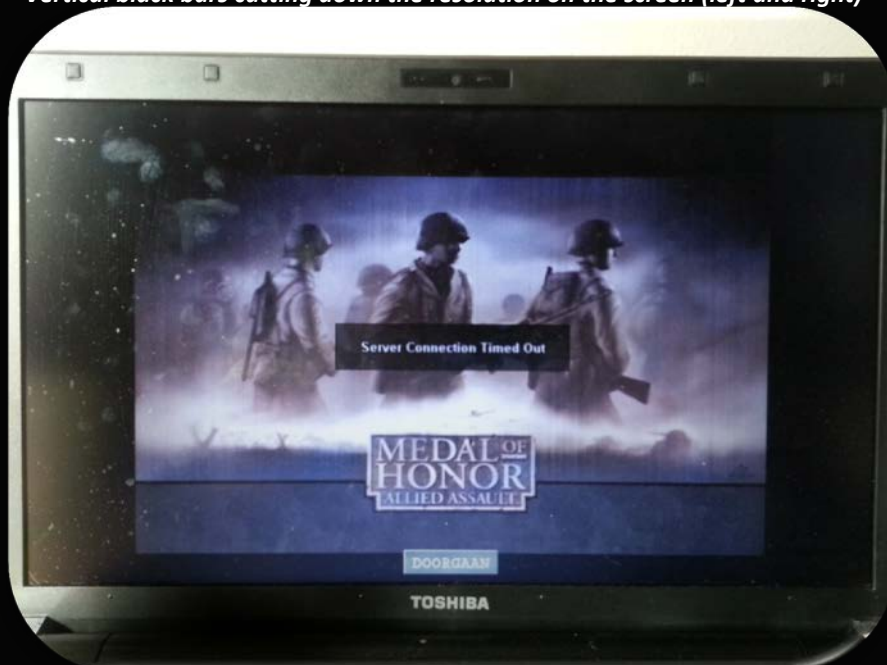
If you are unable to open MOHAA to check the resolutions you can use, here is a list of the stock (4:3) resolutions you can use to place in your [unnamedsoldier.cfg](#) as shown in [11.41](#). If your MOHAA does work, you can simply try them 1 by 1 to see which resolution you can reach without an OpenGL error. (In-game -> Options -> Screen -> Resolution.)

The combination of [r_customwidth](#) & [r_customheight](#) is your resolution, these resolutions have been given numbers and below you can see which resolution correlates with which number ([r_mode](#)).

r_customwidth	r_customheight	r_mode
512	384	3
640	480	4
800	600	5
1024	768	6
1152	864	7
1280	1024	8
1600	1200	9

The maximum resolution that I myself could run on my laptop (with this issue) is [1152x864](#) (which is the same as / equal to [r_mode 7](#)). This does cause a bug on your screen (if your monitor has a higher resolution than you're using). The game is still perfectly playable but your screen might end up looking like this:

Vertical black bars cutting down the resolution on the screen (left and right)





To fix this, you want to try custom (16:9) resolutions.

- If you want **16:9** resolutions, type the following in your [unnamedsoldier.cfg](#) OR change it in [console](#) in-game. Make sure the resolution does **NOT** surpass your monitor resolution (see [11.41.2](#) below to find out how you can check your monitor resolution).

Unnamsoldier.cfg:

- o [seta r_customheight](#) *value* (make it lower) (e.g. 720)
- o [seta r_customwidth](#) *value* (make it lower) (e.g. 1280)
- o [seta r_mode](#) -1
 - Put your [unnamedsoldier.cfg](#) back to [Read-Only](#) (see [8.1](#)) afterwards to avoid MOHAA changing them again.

Console:

- o [r_customheight](#) *value* (make it lower) (e.g. 720)
- o [r_customwidth](#) *value* (make it lower) (e.g. 1280)
- o [r_mode](#) -1
- o [vid_restart](#)
 - If the game crashes after [vid_restart](#), you will have to change the settings to a lower value in your [unnamedsoldier.cfg](#) again (like above). Also make sure your [unnamedsoldier.cfg](#) is **NOT** on [Read-Only](#) when applying this; or your settings won't change for good.

NOTE: If for some reason, it doesn't work when you place it in the [unnamedsoldier.cfg](#); it probably will still work if you type it in via console! If you can't manage to open your game to type it in console, put your [r_mode](#) in your [unnamedsoldier.cfg](#) lower (as said before in [11.41](#)) and open the game.

A list with some custom **16:9** resolutions is shown below. Do not use any resolutions that surpasses your monitor resolution or your game will crash (see [11.41.2](#)).

r_customwidth	r_customheight	
640	360	
854	480	
960	540	
1024	576	
1280	720	
1366	768	// If this resolution causes an error, try 1360x768
1600	900	
1920	1080	
2048	1152	
2560	1440	

11.41.2 Check Monitor Resolution

To check what your monitor resolution is, do the following:

- Right click on your desktop
- Click on [Screen resolution](#)
- The numbers next to '[Resolution](#)' is your current monitor resolution.

(You can increase/decrease your monitor resolution by clicking on the dropdown box next to '[Resolution](#)' and pick a higher or lower resolution, afterwards press [Apply](#).)



11.42 Windows 7 + 8 Crash Fixes (NVIDIA, ATI & Intel HD Integrated Graphics)

Next to the above OpenGL fixes, there are several other fixes that are similar to the OpenGL crashes. With thanks to *own3mall* & *Doughboy* for reporting these problems & fixes online. The NVIDIA & ATI fixes are a bit long and detailed so they are placed in [Appendix 14](#). The NVIDIA & ATI fixes are also available on [xNULL](#).

To get MOHAA working again for computers with [Intel HD graphic cards](#), follow the steps below (the necessary files in these steps can be found in [Appendix 15](#)). Try to see if MOHAA works after every step, you might not need to do all steps.

1. Close [X-fire](#) (or [GSC](#)) when following the steps. During these steps you must join games via MOHAA itself and not X-fire, just to make sure the issue is not X-fire related.
2. Put your in-game resolution lower (via [unnamedsoldier.cfg](#)) as shown in [11.41](#), there is a possibility that MOHAA will only work with a lower resolution, when you get it to work (via the steps below) you can try setting it higher.
3. Copy the included [opengl32.dll](#) and paste it in your [EA GAMES\MOHAA](#) folder, this is the folder that also includes your [MOHAA.exe](#).
4. Run the included [dxwebsetup.exe](#), it will download and install the necessary [DirectX](#) files for MOHAA.
5. Download and install the latest driver for your graphics card (check the manufacturer's site, which is the [Intel](#) site in this case).
6. If MOHAA works, try and open [X-fire](#) and play via X-fire. If this doesn't work you'll either have to keep X-fire closed when playing MOHAA or disable X-fire in game.
Go to: [X-Fire](#) -> [Extra's](#) / [Tools](#) -> [Options](#) -> [Xfire In-Game](#) and empty/uncheck/untick the box in front of '[Enable Xfire In-Game](#)'.
7. Go play MOHAA!
8. If for some reason MOHAA sometimes still crashes with [X-fire](#), tick/check and untick/uncheck the box from [Step 6](#) again and try to play MOHAA afterwards.

NOTE #1: If you get black bars on your screen, see [11.41.1](#) on how to fix it.

NOTE #2: If you can't join servers via X-Fire, run X-Fire in administrator mode (see below).

([Right click X-Fire icon](#) -> [Properties](#) -> [Compatibility](#) -> [Run as Administrator](#) -> [Apply](#))

11.42.1 Check which Graphic Card You're Using

To check what your current graphics card is, click [right mouse](#) button on your [desktop](#) -> [screen resolution](#) -> [advanced settings](#). Now it will show your graphic card below [Adapter type](#).

OR:

Click [right mouse](#) button on [My Computer](#) -> [Properties](#) -> [Device Manager](#) -> [Display Adapters](#) (will show you your graphics card now).



11.43 Player is Holding his Weapon Vertically instead of Horizontally

Sometimes you'll see a player walking by holding his weapon pointing to the sky (vertically). This is caused because the player is using a custom skin (this bug does not appear on all custom skins, just a few specific ones). It is a bit annoying as you won't see the gun poking out of walls/doors and you can't see where the person is aiming at. (**NOTE: This is NOT a cheat.**)

The bug is ONLY seen when the server itself has the specific custom skin (which the player is using) installed on the server.

The bug only affects custom skins that were made by using the following default skins:

- [german_winter_2](#)
- [german_worker](#)
- [allied_manon](#)

(Open the skin.[pk3](#) with [Pakscape](#) (available in [Appendix 13](#)), check [models\player](#) and open the skin's [.tik](#) file (by changing it to [.txt](#)) to see which default skin is being used, see [8.12](#) for more information on editing [pk3](#) & [tik](#) files.)

To solve this you have a few options:

- Download/use the same skin as the person, thus you'll see the correct skin.
- Remove the custom skins from the server (admin only)
- Remove only the skins based on the above default skins from the file/server (admin only)
- Ask the player to change skin.
- If you're an admin you can either ask him to change or kick the player.
- If you're an admin you can autokick custom skins or just specific skins ([MOHAA CI](#), [Delator](#))
- You could ignore it.

Following screenshots are the result of [german_winter_2](#) based skins



Standing



Crouching



Shooting & Reloading

Following screenshots are the result of [allied_manon](#) & [german_worker](#) based skins





11.44 Scapp-Host: “Parsing Error”

When the message: “**Parsing Error**” shows up at a place where a player’s name is supposed to be, and it doesn’t show an IP, don’t be alarmed it’s just a bug that randomly happens from time to time. For some reason scapp-host was unable to generate the data from the player in the screen. But if you click on the name and then click on [Player Info](#) it will still show you the correct player name and IP. Mostly this error will be restored by itself within a few minutes (or when the slot opens up again).

11.45 Scapp-Host: IP Range Ban Bug

When you want to ban an IP range on scapp-host, you’ll need to go to [Quick Ban](#) and then click on [Group ban](#) (next to ‘[User ban](#)’). This will take you to a new set of fields. It automatically goes to [IP range](#), but it’s possible that it won’t show any field where you can fill in the IP range. Simply click on the next tab ([Anticheat ID range](#)) and go back to [IP range](#). It will now show the fields to fill in the IP ranges.

An example of how to ban via IP range is placed next to it. The maximum number an IP can have in 1 spot = 255. The minimum is 0.

Thus the following example will ban every IP starting with [196.208](#):

IP from: [196.208.0.0](#)

IP to: [196.208.255.255](#)

The screenshot shows the 'Ban Player' window with the 'IP range' tab selected. The 'IP from' and 'IP to' fields are empty, indicating the bug where the IP range fields are not visible.

No IP entry bar visible

The screenshot shows the 'Ban Player' window with the 'IP range' tab selected. The 'IP from' and 'IP to' fields are filled in with '196.208.0.0' and '196.208.255.255' respectively, indicating the IP range fields are now visible.

IP entry bar visible (filled in) after switching tabs



11.46 Scapp-Host: High Ping/Timed Out (999) Kick, Kicks 2 Players instead of 1

There is a bug with scapp-host where it kicks someone for being timed out/pinged out/zombie/999 ping but also accidentally kicks client 0 in the game (if there is no client 0, obviously this bug will not occur). You have two ways of dealing with this.

- Put a private slot in the server, these private slots start from client 0 and only people with a password would be able to use them. So simply do NOT use that slot.
 - o Place [sv_privateclients](#) on “1” in the [server.cfg](#).
 - o Place [sv_privatepassword](#) on “password” (choose one) in the [server.cfg](#).
 - o Never use the password, slot will remain closed, kicks will not happen.
- Shut down the pinged out kick option in scapp-host.
 - o Click on your specific server in scapp-host.
 - o Click on ‘[configuration](#)’ above the server list.
 - o Click on ‘[Kick for In / Outping](#)’ in the first tab ([Server Configuration](#)).
 - o Click on ‘[edit value](#)’.
 - o Make sure the box (for [Kick for in / outping](#)) is empty.
 - o Click on ‘[Save](#)’ and you’re done.

11.47 Object through Wall

It happens sometimes in-game that an object/texture in the map is being displaced through walls, throughout the map. Basically you’re seeing an item in the map from miles away. This bug has shown up in maps like Southern France and Stalingrad but could occur in other normal maps as well as custom maps. Don’t be alarmed, you didn’t accidentally download any hacks ;).

There are 3 possible ways of dealing with this:

- Type: ‘[vid_restart](#)’ in console and press enter.
- Type: ‘[reconnect](#)’ in console and press enter.
- Ignore it and play on.

Example screenshots below



Southern France: Carpet through walls



Stalingrad: Piece of stone through walls

11.48 Player with 0 HP

It’s possible that as a spectator you’re spectating a player that seems to have 0 HP. This is an in-game bug; the player actually has 1 HP but for some mysterious reason the game withdraws 1 HP in spectator mode. Don’t be alarmed, just a simple bug.



11.49 (Sniper) Aim Issue on Servers

It's probably for all weapons, but most noticeable with the sniper rifle. On some servers it seems like your aim is very different and shots that normally hit people are missing (even when they are standing still). As long as your ping is good, it has nothing to do with you. There is a server setting that actually has influence on the aim. Only about 10% (or less) of the servers out there have this setting on the wrong value, so you might not ever notice it on any server. To fix, try the following:

- Put `g_smoothclients` on the **server** to **1**
 - o **Console:** `rcon g_smoothclients 1` (will disappear after server restart)
 - o **Server.cfg:** `seta g_smoothclients 1` (this will stay forever)
- If server does not change this, as a **player** try setting `cg_smoothclients` to **0**
 - o **Console:** `cg_smoothclients 0`
 - o **Unnamedsoldier.cfg:** `seta cg_smoothclients 0`

(Note: `g_smoothclients` is serverside, `cg_smoothclients` is clientside. The default/normal values of both commands are 1.)

11.50 Dead Bodies Not Respawning

It could happen during Freeze-Tag or normal gametypes that you kill someone but they don't touch any button so they don't respawn (or get frozen / go to spec). This results in their body still being in the game, with the same model height as a live player still being applied. Especially when this happens in door openings, it results in the door being blocked with no way of getting through it because of the dead body. To fix this do the following (as an admin):

- Put `g_forcerespawn` in the server on **5** (forced respawn in 5 seconds).
 - o **Console:** `rcon g_forcerespawn 5` (will disappear after server restart)
 - o **Server.cfg:** `seta g_forcerespawn 5` (will stay applied forever)

11.51 Telefragging

A telefrag happens when a player (re)spawns on the exact position of a live player. The newly spawned player takes the location of the live player, thus killing the player directly. It hardly ever happens as it is rare to walk on the exact spawn spot where a player is about to respawn. To avoid a telefrag do the following:

- Avoid spawn locations, if impossible; try not to stand still on them.
- As an admin, put `g_allowjointime` on **2** or **5** (in OBJ mode), thus not allowing any respawns for dead people or spectators.
 - o **Console:** `rcon g_allowjointime 2`
 - o **Server.cfg:** `seta g_allowjointime 2`



Telefrag

11.52 Telenading

A telenade happens when a player decides to throw a grenade at a teammate and quickly joins the other team or goes to spectator mode. The result is that the game no longer considers the grenade to be 'friendly' and kills everyone (including former teammates) around it. Even with friendly fire OFF! It mostly happens at respawn, where a player can take out the most teammates right away.

To avoid telenading, you can do the following:

- Whenever a teammate throws a grenade near you, make sure you get the hell out of there. Just in case he tries to telenade you!
- As an admin, put `g_allowjointime` on **2** (in OBJ mode), thus not allowing any respawns for dead people or spectators (gets boring quickly for telenaders).
 - o **Console:** `rcon g_allowjointime 2`
 - o **Server.cfg:** `seta g_allowjointime 2`



- ## 11.53 Map Bugs

However, there are some mapfixes out there that kill people when they try to go to certain spots (under the ground or climbing on roofs). There are also mods out there that will put an object (like a plane) on the bug spot so that it can't be abused anymore. For these mapfixes you should try Google and otherwise ask around on known modding forums such as [xNULL](#) and [ModTheater](#). The known [CMoHL mapfix 2.4](#) is added in [Appendix 16](#). More mapfixes are available on the [AAAA Mod Database](#).

11.54 "The US/UK version of MOHAA was not found on your system"

- Go to [start](#)
- In the run/search-bar type [regedit](#) and press enter (The Registry Editor will now open)
- Go to [HKEY_LOCAL_MACHINE](#) -> [Software](#) -> [EA games](#) -> [Medal Of Honor Allied Assault](#)
- Rename the folder "[1.1.12.XXX](#)" (Where XXX is the version number), to "[1.1.12.200](#)" (If 200 doesn't work, try "[1.1.12.100](#)")
- Close the Registry Editor
- Install the patch normally
- Now play MOHAA!

Some custom maps on AA, SH and BT have a limited vision range, which means that you can only look a meter in front of you and after that everything is basically white. To fix this you'll have to edit the map script and re-upload it to the server (it will only be fixed server-side, not client-side).

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11.56 No Damage from Grenades

Sometimes in some locations it happens that a grenade explodes but causes no damage to the people close to it. This is bug in the game and there is no fix for it. Sometimes the grenade goes underground, which explains the no-damage but this isn't always the case. Learning at which spots this happens could give you an advantage (when dodging and throwing grenades).

11.57 Player goes Spectate during Clan War/Match

Sometimes during wars players can be 'sneaky' and go into spectate to check the locations of the opponents. Now when this happens, normally they forfeit that round and the team that did NOT go into spectator wins. It is however possible that the server is configured in a way that you will go into spectator mode when you're not doing anything (e.g. when you're dead and don't touch your mouse/keyboard). To avoid people from using this excuse, make sure your server has inactive spectate off, to do this, use the following command:

Console: `rcon g_inactivespectate 0` (Will only last until the server goes down)
Server.cfg: `seta g_inactivespectate 0` (Will last forever)

11.58 Player joins Team during a Live Round of a Clan War/Match

It happens that a player gets disconnected from a server during a war or a new player joins during a live round. Obviously you will have to join your team within a second or you will forfeit the round due to having a spectator. But with some servers it's possible to join the game when the round had already begun a while back. To avoid this issue, use the following command:

Console: `rcon g_allowjointime 2` (Will only last until the server goes down)
Server.cfg: `seta g_allowjointime 2` (Will last forever)

11.59 'Axis have planted a bomb' Bug on V2

This bug is caused by Mefy's mod (which is for Capture the Flag, Freeze-Tag etc.).

To fix this do the following:

- Open Mefy's pk3 file, which is located in the server files (Open with [Pakscape](#))
- Open the `bomb.scr` located in the `global/libmef` folder (see [8.12](#) on how to open `scr` files)
- Locate the following phrase in the `bomb.scr`: `if (local.team == "allies")`
- Change that phrase to: `if (local.player.dmtteam == "allies")`
- Now save the `bomb.scr` file (e.g. on your desktop) and copy/drag it to the `global/libmef` folder in the pk3. Overwrite the existing `bomb.scr` if needed.

11.60 CM_LoadMap Error

When loading a custom map, it's possible to get the following error in your `console` and/or `server.cfg`:

ERROR: CM_LoadMap: maps/dm/snowball_fight1.bsp has wrong version number (21 should be between 19 and 19)

----- Server Shutdown -----

**NOTE: the gametype (`dm` in this case) can be different, as in `obj` or `lib`. The map name (`snowball_fight1` in this case) can be different, depending on the map you're trying to play. The numbers at the end (`21` & `19` in this case) may also vary.*

The issue here is that the map is not made for the game you're playing. If you get this error in Allied Assault, it means the map is made for either Spearhead and/or Breakthrough ONLY and vice versa.

To fix this there are several options:

- Launch/play the map in a different game.
- If you're the one who made the map, fix it so that it works for all games.
- Simply avoid this map and play a different one.



11.61 Weapon Drops after Switching through Them Fast

Quickly scrolling through your weapons might make them drop on the ground. This is a game mechanic bug, although if you would juggle weapons that fast in real life, you're bound to drop one sooner or later, so it adds a form of realism. Unfortunately there is no fix for this issue, besides avoiding rapidly scrolling through your weapons.

11.62 Unable to See Custom (Weapon) Skins

It's possible that you would like to try out new custom weapon skins or player skins or any modification to the way you view your game (compass, health meter etc.). There's a chance that when you try them out, they won't work. There are a few options you can try to resolve this issue. Try the solutions in numerical order (number 1 first), as the higher the number the more the solutions become annoying and more time-consuming.

1. Make sure the custom skin/mod you used is placed in your [mohaa\main](#) folder and not in any other.
2. Make sure the custom skin/mod is in a [.pk3](#) extension (it doesn't work if they are still in a [.zip](#) or [.rar](#) or any other extension).
3. Make sure the custom skin/mod is alphabetically at the bottom of your [mohaa\main](#) folder, placing the letter 'z' in front of the name helps placing it at the bottom. If you have a lot of mods, you might need to add more Z's to get it alphabetically last. Because the last files on the list get read last and thus overwrite any previous skins/settings.
4. Go to the [in-game menu](#) -> [options](#) -> [screen](#) and at the bottom of the screen, tick/check off "[Texture Compression](#)" (so make sure the box is empty). See if the skins work now (without quitting the game). If it works, but you have your [unnamedsoldier.cfg](#) set to [Read-Only](#), you'll have to change it every time you play unless you do the following:
 - a. Switch off [Read-Only](#), go in-game, change the setting, leave game and switch on [Read-Only](#) again.
 - b. Switch off [Read-Only](#), open the [unnamedsoldier.cfg](#), look for: [seta r_ext_compressed_textures](#) (if it's not in the list, place it under any other setting) and switch it to 0. So it will look like this: [seta r_ext_compressed_textures "0"](#)
5. If everything failed, the issue might be that you have too many skins/mods in your [mohaa\main](#) folder and they are conflicting with each other. They basically might be getting in each other's way of working. I suggest you try 1 skin/mod at a time to see if they work individually, and keep adding until they won't work anymore, thus finding the file giving you trouble. Now either stop using that specific file or ask for help from others to see what is causing the problem.
6. You could always try to see if other skins/mods work and play with those instead.

11.63 MOHAA/SH/BT Not Working / Won't Launch

There have been various reasons explained in this guide why mohaa might not launch and what to do to fix it. New problems have been uncovered (especially with the latest Windows versions and its updates) and fixes have been found. If you just get a black or grey screen, or if the following message pops up (Win7 and above): "[Please login with administrator privileges and try again](#)", try to do the following:

- Uninstall the following Windows update: [KB3086255](#)
(This update breaks a lot of old games, more information [HERE](#))
- If you're on Spearhead or Breakthrough, try changing the game executable ([moh_spearhead.exe](#) or [moh_breakthrough.exe](#) to [mohaa.exe](#)) this has shown to work strangely.



11.64 Spamming Messages/Taunts

Sometimes players tend to be annoying and start spamming messages through chat, or spam taunts (e.g. 'Yes Sir!') which could give people a headache real quick. When an admin is around, these type of players usually get dealt with pretty quickly. There are some things to prevent this from happening though.

- It's likely that if the admin removes the sound files used for taunting from the server, clients will be unable to taunt (`mohaa\main\sound\dialogue\multiplayer` folder).
(**Note:** The "*The bomb has been planted/defused*" are in here as well)
- As a client you might be able to remove the above files as well, so that you will not hear those sounds anymore (make sure you backup your files though).
- The following file will disable the taunt sounds clientside as well:
<http://www.mohaaaa.co.uk/AAAAMOHAH/content/no-more-voice-spam-anti-taunt>
- To reduce spamming, the following settings need to be entered directly into the `server.cfg` (afterwards save the file, re-upload it to the server and restart the server):

```
seta sv_floodProtect 1
seta sv_flood_waitdelay 2
seta sv_flood_persecond 1
seta sv_flood_msg 2
```
- With Reborn, you can disable taunts & chat server-side via:
 - **Console:** `rcon sv_disabletaunt 1` `rcon sv_disablechat 1`
 - **Server.cfg:** `seta sv_disabletaunt "1"` `seta sv_disablechat "1"`
- With Reborn you can also disable the taunts & chat of individuals via:
 - `ad_distaunt <clientnumber>` (e.g. `ad_distaunt 5`)
 - `ad_dischat <clientnumber>` (e.g. `ad_dischat 5`)

11.65 Anti-Cham HUD Conflicts

The **Anti-Cham** mod (developed by Cortex, further updated by me (Shadow) personally, stranter & JoTo) can cause conflicts in the HUD (compass, healthbar etc.) with other mods. It basically means the HUDs will get/look messed up, get bigger/smaller or completely disappear.

If a mod is using **huddraw** it might conflict with the Anti-Cham mod. **Freeze-Tag** & **Capture the Flag** for example uses some huddraws and conflicts with the base version of the anti-cham. An updated version of the anti-cham (in combination with Freeze-Tag or Capture the Flag) is out there as well.

Some other mods that are known to use huddraws, and might possibly conflict are:

- **Mapinfo** mod
- **Teambalance** mod
- **Countdown** mod

To make sure you avoid conflicts with any of these mods, you'll have to edit the Anti-Cham mod. Depending on the mod version, you'll have to change 1 of 2 settings (use **CTRL+F** to locate setting):

- **Version 1:** change `local.v = (52+local.i)` to `local.v = (75+local.i)` (to avoid FT, CTF & Countdown Conflicts)
Or to: `local.v = (106+local.i)` to avoid conflicts with other mods
- **Version 2:** you'll have to change a lot of the huddraws included to make sure they're between number **106** and **232**!
Example (change the number **54** into a higher number as stated before):

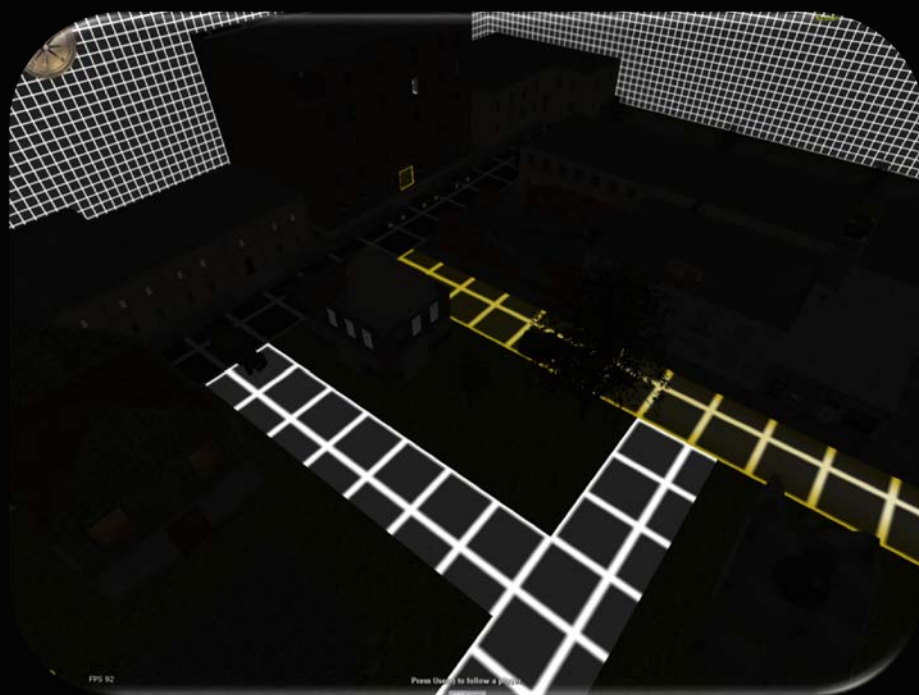
```
huddraw_virtualsize 54 1
huddraw_alpha 54 1
huddraw_rect 54 0 0 800 800
huddraw_shader 54 "textures/models/....."
```



11.66 Missing Textures

It's possible that in the time you've been playing MOHAA, you've noticed textures that are suddenly only black & white boxes/stripes or yellow & dark green boxes/stripes. These colours could be on any texture in the game (doors, bricks, buildings, roads, the sky, a lamp, a sign etc.). When you see this, it means the actual (real) textures are missing.

An example is shown in the picture below:



The yellow/dark green and black/white stuff in the map are missing textures

There are several reasons this could happen to you, and thus several fixes for it as well. They will all be listed below:

- Some custom maps have these missing textures. This either means the textures are missing from the actual file (which means someone has to add them to the file in order for it to show on the map).
- Or it means the map is made for a different game (If you load the map in AA and get these textures, it's possible the map is actually made for Spearhead and/or Breakthrough; these expansions have more textures than the original game).
- If you see this in normal maps (but possible also custom maps), it's possible you have [pk3](#) files in your main folder (either maps or mods) that have conflicting textures and mess with your original textures/game. Try removing custom [pk3](#) files from your main to see if this fixes it.
- In theory you could also re-install the game (a clean version), which should fix everything. If this happened due to a fresh install, then try a different installation/download to see if that fixes it.



11.67 Console Error: 'CG_te_mode_name Temp Emitter Off'

It's possible that when you open console, it's non-stop flooded with a few different lines:

```
Cvar_Set2: cg_te_mode_name Temp Emitter Off
Cvar_Set2: ui_timemessage
Cvar_Set2: subtitle0
Cvar_Set2: subtitle1
Cvar_Set2: subtitle2
Cvar_Set2: subtitle3
```

This can be really frustrating when you're trying to access information via console.

To solve this, simply switch your 'developer' CVAR to 0 (it's currently probably on 1, 2 or 3).

You can do this via [console](#) or via [unnamedsoldier.cfg](#) (best to do via unnamedsoldier.cfg). Make sure your config is not on [Read-Only](#) before editing it.

```
Console:          seta developer 0
Unnamsoldier.cfg: seta developer "0"
```

11.68 Manon Playerskin Male Voice Bug

Sometimes when someone is using the [Allied Manon](#) (Batiste) player skin, when they take damage, you'll hear a male voice grunting instead of a female voice.

You (an admin) can fix this server-side by changing the value of the following CVAR:

```
Console:          rcon seta g_voiceChat 1
Server.cfg:        seta g_voiceChat "1"
```

!! Experiencing any other bug/problem in or outside the game? Try using Google to see if any solution comes up, if not then try asking people on forums like TMT (The Mod Theater), AAAA or perhaps X-NULL (when it's 1.12 patch related). Links will be placed in chapter [16. Links](#) !!



12. Custom Files



To improve the quality of the game, there are many modifications made out there that will help you do this. Custom maps, skins and mods could always enhance the fun, especially on themed servers.

12.1 Map, Skin & Mod Database

The [AAAA](#) site currently holds the biggest AA, SH & BT Map Database in the world with over 2300 custom maps already! The other databases are also slowly growing, with respective amounts of 700+ skins, 600+ prefabs, 750+ mods, 150+ tutorials, 80+ tools and 30+ patches. With the refined search options, you'll be able to find anything you're looking for within a few clicks. In [Appendix 17](#) you'll be able to find a detailed document on how to use the database to its best. Below a short list will follow, listing all the features. Click on the [underlined blue](#) text to directly go to the specific webpage.



[Map Database](#)

- Every map has screenshots to be easily identifiable.
- You can search on (part of) the name of a map.
- You can search on (part of) the map command (e.g. dm/mohdm1).
- You can search on map [creator/author](#).
- You'll be able to locate maps that have a .map file (for mappers to use).
- You'll be able to find a list with [themed maps](#) (Christmas, Halloween, Space etc.)

[Player Skin Database](#)

- Every skin has a screenshot, while scrolling through the skins you'll see the screens.
- You can search on (part of) the skin name.
- You can search on (part of) the skin command (e.g. allied_manon).
- You can search on skin creator/author.
- You'll be able to locate skins based on themes (Christmas, Horror, SWAT, Zombies etc.)

[Mod Database](#)

- Lots of mods have screenshots, making scrolling for weapon skins, avatars etc. easier.
- You can search on (part of) the mod name.
- You can search on mod creator/author.
- You can search on the type of the mod (e.g. Admins Tools, Weapon Skins, HUD).
- You can search on sub-category of the mod (e.g. Colt45, KAR98, Thompson, Avatar).
- You can search on the options of Client Side, Server Side or both.

[Tutorial Database](#)

- You can search on (part of) the tutorial name.
- You can search on tutorial creator/author.
- You can search on category (either Tutorial or Guide).
- You can search on sub-category (e.g. Mapping, Skinning, Walkthroughs, Manuals).
- The [Mapping Tutorials](#) from the .MAP site have been relocated to this database.

[Tool Database](#)

- You can search on (part of) the tool name.
- You can search on tool creator/author.
- You can search on the options of Client Side, Server Side or both.

[Prefab Database](#)

- You can search on (part of) the tool name.
- You can search on tool creator/author.
- You can search on category (Buildings, Vehicles, Bridges etc.)

Other big databases are respectively found [HERE](#) and [HERE](#) (use Google to find any other).



12.2 MMDL / PakRadar

Work is currently being made on an auto-downloader for AA, SH and BT files (by VATEC6000). This will help players automatically download any needed file from a server they are joining and the files will get moved out of the [main](#) folder again after you quit the game, they will remain in a different folder unless you decide to remove them. The [MMDL](#) (Moh Map DownLoader) is already out but is showing some bugs, the new improved version is called [PakRadar](#) and is also available already. To follow the progress and downloads, please check [HERE](#) (MMDL) and [HERE](#) (PakRadar).

UPDATE 12-05-2016: New version of PakRadar is out, progress & download can be found on AAAA, [HERE](#). The download & a tutorial for creating a custom file list have also been added to the AAAA Database and can be found respectively [HERE](#) and [HERE](#). The Tutorial has also been added to the new MOHAA Tutorials package.

12.3 Reborn (1.12) Client-Side Patch

Next to the above auto-downloader, xNULL is also working on a client-side patch of the 1.12 patch that will include an auto-downloading function for AA. Next to the auto-download function it will also include various other features, the most important one being the anti-cheat function. Current tests have showed an already good working client-side anti-cheat and auto-downloader. At the moment xNULL is improving functionality before releasing it to the public. Keep an eye on the xNULL forums about their progress [HERE](#).



13. Easter Eggs, Fun Facts & Medals

This chapter will include secrets, Easter eggs, any other 'hidden things' and the mission medals from Allied Assault, Spearhead & Breakthrough. The game it is meant for will be shown at the beginning of each Easter Egg, indicated by either **AA**, **SH** or **BT**.

13.1 Easter Eggs & Fun Facts

13.1.1 (AA) Bazooka Med

The first easter egg is the "Bazooka Med" hide and go seek game. This is a fun, but challenging game. Here is how you can play hide and go seek:

In the sniper's last stand level, on hard difficulty, you must save all of the captured soldiers (5 I think). On the next level you have to get to the tank with all members of the tank crew alive and all the soldiers from the next level also alive (there should be six other Allied soldiers with you). To start the mission without having to go through all previous missions; open [console](#) -> type 'maplist' -> double click on [m5l1a.bsp](#). To make sure it's on hard difficulty, open [console](#) -> type [difficultyHard](#) -> type [restart](#) -> Game should be on hard difficulty now. If it doesn't work like this, try running the mission before [m5l1a](#) first, otherwise play the entire single player first.

After you get to the tank, the screen will go blank and the sign "You have 60 seconds to find a safe hiding spot and then Bazooka-Med will be on your trail". A countdown will then appear and after that, the camera switches to Bazooka-Med and "Ready or not, here I come!" appears. After that Bazooka-Med goes looking for you through all the level until he finds your trail (don't know how) and "BAZOOKA MED HAS THE TRAIL!!" appears. If he finds you before the time is up, he will blow you up with his bazooka and "You lose. Hide better" will appear.

It's more fun to find a place to hide on your own, but if you don't manage to, there are several spots on the map where you'll be able to hide and win which will be shown below. You can win by either eluding him completely (thus he doesn't find you), it will then state "Congratulations, you have eluded Bazooka-Med" or by hiding in a spot where he does find you and shoot at you but his bazooka rounds won't hit you, it will then state "Congratulations! Could have sworn he had you".

SPOILER ALERT How to 'defeat' the Bazooka Med:

1. <https://www.youtube.com/watch?v=B0UKNKMkOsQ> (Tries 2 spots that fail, 3rd one wins)
2. <https://www.youtube.com/watch?v=qyfvvhSvYZM>



3. (Enlarge screenshot by holding **CTRL & +**, to reduce hold **CTRL & -**)
4. Same place as in the 2nd option (YouTube link) but try one of the other 2 corners to hide in.
5. Another place to hide is in a room, at the second floor of the first building that you can go inside, in the beginning of the map, near the arched construction (of option 2). Once inside the room, crouch behind the cabinet and hug the wall. The Bazooka-Med will find you but he will not enter the room, he will fire five times the bazooka from outside the room (from the corridor) and then he will die.
6. Another known place to hide is also crouched, in the corner, behind the bed, in the room where you meet the tank crew and get the bazooka ammo. The Bazooka-Med finds you, but the bed protects you from the bazooka.
7. Last known place is by jumping onto the bed's footboard, then jump onto the headboard, and then jump down behind the bed and crouch. He follows the trail to the foot of the bed then turns around and leaves. If you step on the mattress or walk to the side of the bed, he goes up the stairs, sees you and fires away (but he can't hit you!).



13.1.2 (AA) Hidden Level

Contained inside the game is a secret map called: "[m4l0.bsp](#)". Here's how to access this dog-filled, water trapping, map.

Open console, write "[maplist](#)" and select the map "[m4l0.bsp](#)", you'll play a hidden mission not found elsewhere in the game. It's a very unique map, with totally open terrain and a whole bunch of dogs. One little warning; don't enter the water! It's impossible to exit it and you'll only end up stuck.

13.1.3 (AA) Dancing Nazis

When you enter the first disguise mission in the sub pen, there is another Easter egg. After you grab your papers and uniform from the locker area and show the Germans your papers, you enter another room where 3 Germans are playing cards. To the right of the doorway are two windows looking out onto the Sub pen floor. If you look out the window there are two Germans. When you press the [Use](#) key (default = [E](#)) beside the window ("Use" the window), the Germans will do backflips, hand stands, Russian dances and more. (Watch here: <https://www.youtube.com/watch?v=N60bsFhigwA>)



(Enlarge screenshot by holding [CTRL](#) & [+](#), to reduce hold [CTRL](#) & [-](#))

13.1.4 (AA) Original MOH Theme Song

It is possible to play the original Medal of Honor theme song on a piano & cello, by pressing the [Use](#) key (default = [E](#)) on it. It's in the 3rd level of mission 6, called '[The communications blackout](#)'. It's very easy to find in the beginning of the map in a room.

Open [console](#), type in '[maplist](#)' and open '[m6l2a.bsp](#)' to start the mission.

Make your way into the town and take the first street to your left. Open the second door to your left and enter. Go through the next door and take a right down the hallway and enter the first room on your right. Go up to the cello and/or piano and press the [Use](#) key (default = [E](#)), it will play part of the MOHAA theme song for you. You may have to crouch and look directly at the cello for it to work and you may have to press the use key multiple times to get the piano & cello play a different part of the theme song.



13.1.5 (AA) 2015 Developer Quotes

Go to the '[main](#)' directory where you installed MOHAA. Find [Pak5.pk3](#) and open it with [PakScape](#). Now go into the '[maps](#)' folder and find a file called '[m3l1a.scr](#)' and change the filetype from [.scr](#) to [.txt](#) now just double click and all the quotes are at the top of the file.



13.1.6 (AA) Save the Sniper!

This Easter egg is found in the 2nd level at the beginning where you have to save the sergeant. If you notice that during the briefing he says something about another soldier being held in the other room". Well when you go outside into the courtyard area and instead of following the sergeant out towards the search lights, you go up the stairs to the right, then up some more stairs and follow around back towards the buildings and you'll find a few Germans and a sniper soldier being held there who can follow you and the sergeant. He will help you out by sniping the enemy while you complete the mission.



(Enlarge screenshot by holding CTRL & +, to reduce hold CTRL & -)

13.1.7 (AA) Hidden Message in Omaha

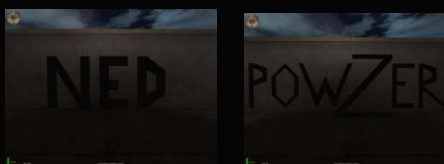
In the map [Omaha Beach \(obj/obj_team3\)](#) you can find a hidden message/name below the big hill. You can open the map by yourself in-game to check it out or join any server that is running the map. Simply go to [spectator](#) mode and fly through the huge hill (the one that separates the beach from the bunkers) and you will see the word 'SENN' which is the name of one of the map developers. You could also try to go under the map whilst playing which you can do either by using gravity to fly to the ends of the map to land below it or let a teammate run through a minefield next to the left bunker (when looking from the beach) and run after him, while he dies by an explosion you can run past the mines and run under the map eventually.



(Enlarge screenshot by holding CTRL & +, to reduce hold CTRL & -)

13.1.8 (AA) Hidden Messages in Algiers

In the map [Algiers \(dm/mohdm7\)](#) you can find 2 hidden messages/names. They are located in 2 tiny domes on the roof of the mosque building (the most South-West building of the map). In one it says 'NED' in the other 'POWZER' which are the names of 2 of the map developers. You can only view these names in spectator mode, by flying through the domes. You can launch the map in-game by yourself or join a server that is running the map.



(Enlarge screenshot by holding CTRL & +, to reduce hold CTRL & -)



13.1.9 (AA) Hidden Message in Destroyed Village

In the map [Destroyed Village \(dm/mohdm2\)](#) you can find a hidden message/name. It's located underground behind the allied spawn building. It states '[NED](#)' (again), the name of one of the developers of the map. You can go in spectator mode to view it. You can launch the map in-game by yourself or join a server that is running the map. You can view it at the bottom/middle left of the screenshot below.



(Enlarge screenshot by holding [CTRL](#) & [+](#), to reduce hold [CTRL](#) & [-](#))

13.1.10 (AA) OSS Agent

In the first level of MOHAA you have to save an OSS agent by the name of [Jack Grillo](#).

Now if you watch the credits for a few minutes, the [Lead Sound Designer](#) will pop up and his name is [Jack Grillo](#).

13.1.11 (AA) Raiders of the Lost Ark

In the movie Raiders of the Lost Ark, the Ark of the Covenant is stored in a (German) crate with a logo on it. This logo can be found on crates around MOHAA as well (throughout all missions). Steven Spielberg directed the movie and also helped developing MOHAA. Now this may or may not be an Easter egg, it could as easily be coincidence or simply both the movie and game were picking a logo that the Germans actually used on their crates (to be historically correct). But at the very least, it's a fun fact to know. There are some slight differences between the crates, but they're almost identical.



Crate from Raiders of the Lost Ark



Crate from MOHAA

(Enlarge screenshot by holding [CTRL](#) & [+](#), to reduce hold [CTRL](#) & [-](#))



13.1.12 (SH) Dancing Player Models

After you've installed the 2nd patch of Spearhead, start the game up and do the following: Go to [Multiplayer](#) -> [Multiplayer Options](#) -> Click on the little window on the door between the 2 player models and they will start dancing.

13.1.13 (BT) Bonus Player Model

There is a secret skin located within the game that cannot be picked right away. Every player will be able to see you use this skin because the model and textures are located within everyone's game. This skin however is probably automatically included within the 2.40 patch for Breakthrough so this only works for version before 2.40.

To unlock the secret Italian Paratrooper skin (to play with), do the following:

- Open the [newconfig.cfg](#) file in the "[maintt](#)" subdirectory
- Add the following line to the file: "[seta bonusskin 1](#)" (without quotations)
- Save the file

13.1.14 MOHAA Mapping Contest

Fun facts; back in 2002, Mapping Contests were organized and the winners would have their map ported over to the new Spearhead expansion for MOHAA. The maps were created for AA originally (as Spearhead ofc. wasn't out yet).

[Surgeon](#) won one of these contests and his map '[Small City](#)' was made into the official Spearhead map '[Stadt](#)'.

[EraSerx](#) (Steven Delrue) won a contest as well and his map '[Unterseite](#)' was made into an official Spearhead map as well.

So at least 2 of the casual mappers from the MOHAA community back then were chosen to have their own maps published in the, back then, newly released Spearhead expansion pack!



13.2 Medals

In single player mode, you're able to collect various medals by completing specific tasks during missions. These medals are available in **AA**, **SH** & **BT**. Below you'll find all medals listed per game and how to earn them.

You won't get the medal right away after completing the task; you must first complete the entire mission. In the [Mission Statistics](#) page (after the mission) you'll get a confirmation stating "[Medal Awarded](#)".

13.2.1 AA Medals

Medal Name	Mission	Difficulty	Ref. Number	Task
The Legion of Merit	M1	-	1	Rescue the American POW
Norwegian War Cross With Sword	M2	-	2	Grab the manifest inside the U-Boat
American Campaign Medal	M3	-	3	Survive the Omaha landing
The Good Conduct Medal	M4	-	4	Destroy 2 King Tiger tanks
Distinguished Service Medal	M5	-	5	Keep the three-men tank crew alive
Army Commendation Medal	M6	-	6	Disembark with just up to 4 casualties
Bronze Star	EVERY	EASY	7	Finish the game
Silver Star	EVERY	MEDIUM	8	Finish the game
Distinguished Service Cross	EVERY	HARD	9	Finish the game



The medal case in AA, the numbers correspond with the [Ref. Numbers](#) in the table above.

In AA (**NOT** in SH & BT), you can also unlock all medals via CVARs (so, cheating basically). All you have to do is add the following CVARs to your [unnamedsoldier.cfg](#):

- `seta g_eogmedal2 "1"`
- `seta g_eogmedal1 "1"`
- `seta g_eogmedal0 "1"`
- `seta g_medal5 "1"`
- `seta g_medal4 "1"`
- `seta g_medal3 "1"`
- `seta g_medal2 "1"`
- `seta g_medal1 "1"`
- `seta g_medal0 "1"`



13.2.2 SH Medals

Unlike in AA, you don't have to complete specific tasks, all you need to do is complete the campaigns and the game (in all difficulties) to get the medals. The medals and how/where to get them is shown in the table below.

Medal Name	Mission	Difficulty	Ref. Number	Task
The France and Germany Star	T1	-	1	Complete the first campaign
Belgian Croix De Guerre	T2	-	2	Complete the second campaign
Medal for the Capture of Berlin	T3	-	3	Complete the third campaign
Bronze Star	EVERY	EASY	4	Finish the game
Silver Star	EVERY	MEDIUM	5	Finish the game
Distinguished Service Cross	EVERY	HARD	6	Finish the game



The medal case in SH, the numbers correspond with the [Ref. Numbers](#) in the table above.



13.2.3 BT Medals

Just as in Spearhead, all you need to do is complete the campaigns and the game (in all difficulties) to get the medals. The medals and how/where to get them is shown in the table below.

Medal Name	Mission	Difficulty	Ref. Number	Task
Africa Star	E1	-	1	Complete the first campaign
Distinguished Flying Cross	E2	-	2	Complete the second campaign
Air Medal	E3	-	3	Complete the third campaign
Bronze Star	EVERY	EASY	4	Finish the game
Silver Star	EVERY	MEDIUM	5	Finish the game
Distinguished Service Cross	EVERY	HARD	6	Finish the game



The medal case in BT, the numbers correspond with the *Ref. Numbers* in the table above.



14. Community News

14.1 Master Server Shutdown & Alternatives

As of May 31st, 2014, [GameSpy](#) has announced that it will end support for ALL games that still use their services. This has concerned the MOHAA community because the game still has a large user base that relies on the service to have users connect to dedicated servers to play multiplayer. This means that server lists would appear empty, as if there was no MOHAA server online.

Fortunately, the [xNULL](#) Dev Team was aware of this and they've quickly started to act upon this in case the inevitable happens.

14.1.1 Reborn Master Server

Below you will find instructions on implementing the new MOH Query Service so that it will reroute servers. We made this possible for servers using the [Reborn Patch 1.12](#) and for the default [1.11 patch](#). The tool is also compatible for the latest binaries of Breakthrough and Spearhead.

Please follow the steps below to make sure your server is compatible and patched so that users can easily access it through their game. Here you can also patch your game as a player, to allow servers showing up in your in-game server browser.

1. Visit <http://mohreborn.com/>
2. Click the "[How to Switch button](#)"
3. You will see an easy to follow format on the site.
Depending on the game you play (Allied Assault, Spearhead, or Breakthrough (or all of them)), Click on the tab to pull up the necessary information about patching that game.
4. You can download the Pre-Patched binary and replace it with yours, OR you can download a universal patcher to patch your game. The files needed to be replaced for AA are as follows:
 - a. **Admins:** [MOHAA_server.exe](#) for Windows & [mohaa_inxded](#) for Linux
 - b. **Players:** [MOHAA.exe](#)

For SH & BT, pick the files equivalent to the ones above (slight name differences).

FYI – The difference between the downloadable binary and the patcher is, we are using a stock US/UK binary. So if you use one of the other binaries such as Dutch ([NL](#)) it MAY effect the gameplay slightly. Also if you use a custom binary that uses it with a mod, it might also be affected if you just replace it with the patched one. If this is the case, you should use the Universal patcher to modify your binary. This same concept applies to all versions of MOH.

5. Once you patch your binary you will need to make sure you update your host file. Each version of MOH will show you how to configure the host file, and you can also use the editor to do it for you easily. Links to instructions and the download are available so the process is as simple as can be.
6. Once you have everything configured, you can then click on the "[Tools](#)" option to download the [Query Launcher Utility](#), OR you can view it from the web based [Query Browser](#) by clicking on the "[Online Server Browsers](#)". The one that is currently working is the first one hosted by Own3mall (<http://mohaaservers.tk/>).

(Source: James, xNULL)

Next to Reborn, [Qtracker](#) has also opened Master Servers for many of the games that had none anymore due to GameSpy closing down theirs. Their main focus isn't MOHAA (which is the case with Reborn!) but they still have launched a Master Server for it. For more information visit the following link: <http://www.qtracker.com/master-gamespy.php>



14.2 X-Fire Shutdown & Alternatives

As of June 12th, 2015, the X-Fire client has shut down. This means that you cannot use this software anymore to communicate with people or find/join servers. This is very unfortunate news to a lot of people, as there aren't any really good alternatives.

The following message was sent out a short while before the shutdown:

System Broadcast:

Dear Xfire users - It is with sadness that we must announce that the Xfire Social services will be shutdown on Friday (June 12th). Please visit social.xfire.com to download your video/screenshot data. We apologize for the short notice - Xfire Community Team

There are a few alternatives available to connect to servers or chat with people, though they might not come close to X-Fire. You might be able to add the game to [Steam](#) as well.

14.2.1 GSC

A somewhat buggy alternative to X-Fire where you can add friends, chat and join servers. You can manually add favourites that will stay in your server list. If you have an account at [GameTracker](#) you'll be able to login to GSC as well. If you want to see the entire MOHAA server list on GSC, you'll have to apply a fix first, as the normal server list won't load. **Download:** <http://www.getgsc.com/>

1. Shutdown GSC
 2. Go to GSC install folder
 3. Look for and open up [gameslist.xml](#) in wordpad or any text editor program. DO NOT USE NOTEPAD
 4. If you cannot edit it in the folder location, place a copy onto your desktop
 5. Once open, search for "moh"
 6. You should see: `shortname>moh</shortname>`
 7. Change it to: `shortname>mohaa</shortname>`
 8. Save file, now if you changed it on desktop, take that change and put file into same GSC folder location
 9. Launch GSC
 10. MAKE SURE YOU ALWAYS CLICK ON "CANCEL UPDATE" !!!!! (or you'll have to start over)
 11. Login and check the game browser
- **** DO NOT BLOCK FROM FIREWALL ****
- (Source: Merlinz)

Bug: Sometimes if you join a server on GSC, it will connect to a server you previously connected to.

14.2.2 GameTracker Lite

With GT Lite, you'll be able to add servers and join them. You'll also be able to join servers via GameTracker links on websites.

Download section: <https://www.gametracker.com/downloads/>

MOHAA Server & Connect list: <https://www.gametracker.com/search/mohaa/>

14.2.3 MOH Query Launcher

A useful server browser made for MOH games (AA, SH, BT & PA) by own3mall. You can set favourite servers that will show first, see all players, map, ping, gametype, IP, name, country etc. etc. It's very useful and you can launch the game directly from it (even have the option to disable the intro videos of the games and some more useful options). You can download it here: <http://www.dinofly.com/files/mohaa/MOHQueryInstaller.exe>



14.3 GameFront Shutdown & Alternatives

As of May 1st, 2016, GameFront has been shut down. GameFront was one of the most known download sites for MOHAA (and other games). It held thousands of downloads for MOHAA, SH & BT. This is a big loss to the game, however the site has been mirrored at several places and all files can still be found & downloaded. You can view the mirror here:

AA: <http://www.lonebullet.com/games/medal-of-honor-allied-assault-6699.htm>

SH: <http://www.lonebullet.com/games/medal-of-honor-allied-assault-spearhead-6136.htm>

BT: <http://www.lonebullet.com/games/medal-of-honor-allied-assault-breakthrough-6137.htm>

Direct Gamefront mirror: https://gamefront.online/files/listing/pub2/Medal_of_Honor/

Archived Gamefront files, you can search via title, author & description! (Files over 2MB can only be downloaded with a paid membership

unfortunately!): <http://www.nexusmods.com/medalofhonor/mods/searchresults/?>

Mod DB has bought the old Gamefront name and has uploaded its files there, so it doesn't have many files, but in a way related to Gamefront:

<http://www.gamefront.com/games/medal-of-honor-allied-assault>

The AA lonebullet link above also contains a lot of SH & BT files, as the latter two weren't used a lot. A lot of the files (mainly the most important/useful/nice ones) and more are also located on the AAAA database. Old GameFront files are still being uploaded to the Database, so make sure to check up every now and then!

Database Link: <http://www.mohaaaa.co.uk/AAAAMOHAAs/content/downloads-and-resources>

Links to other various download sites can be found in **Chapter 16** of this Guide.

14.4 OpenMOHAA

OpenMOHAA was developed by the SFX team, to be almost a duplicate to MOHAA, but with access to its own source engine and thus way more protection & mod options. It's based on Quake 3 engine with FAKK2 Übertools and is designed to make an open source version of MOHAA with the same code system.

"OpenMoHAA is an open-source game engine that is compatible with Medal of Honor: Allied Assault media and network protocol, based on the ioquake3 project. It provides free, open-source binaries that can run the original MOHAA content, which we do NOT provide." – [LINK](#).

OpenMOHAA is no longer being actively developed due to the developers having stopped and the UE4 project has been launched in its place. However there is talk about reviving it (2018).

Links to info and downloads on OpenMOHAA can be found: [HERE](#), [HERE](#), [HERE](#) & [HERE](#).

14.5 MOH-UE4 Project / MOH Rises

The MOH-UE4 (Unreal Engine 4) Project has been started by the SFX team to basically switch MOHAA to a new engine (UE4 in this case), with lots of new possibilities. It's a brand new engine designed to break the limit and rebase MOHAA in a new engine and new code. The mission is to port over the Moh series into Unreal Engine 4 keeping the game as original as possible, this includes the SinglePlayer and MultiPlayer Maps, original Models, Objectives and Gameplay.

There's a huge team currently still working on this (2018).

The project is now being called 'MOH Rises' and can be found here: <https://mohrises.com/>



15. Credits

Some of the things in this guide wouldn't have been possible without the help of some information on sites and people helping out on occasion. The sites will be named that helped with collecting the necessary data and those that are helping the community a lot on the next page/chapter.

Specific people will be named when I've copied information from them directly into the guide or if they helped out with ideas and making some of the screenshots or pictures. My apologies if I missed anyone, it was not my intention, please contact me if you think you should be in this list.

Screenshot & Picture Credits

[\\$teal](#)

[xena](#)

[Djammz](#)

[Noiz](#)

[Goose](#)

[Lilith](#)

[Easymeat](#) (Medal pictures)

[Mss. Junior](#) (Front Page)

Incorporated Ideas/Suggestions Credits

[\\$teal](#)

[Noiz](#)

[Todesengel](#)

[Purple Elephant1au](#)

Information Credits

[Sor](#) (Opening .scr files)

[own3mall](#) (Windows 7 Crash fixes & Mouse fix)

[electricrypt](#) (Lean hypothesis & Max. game settings)

[Wombat](#) (Recording)

[Joto](#) (scapp-host kick info)

[Doughboy](#) (Intel HD graphics Crash fixes)

[AFShadow](#) (Freeze-Tag Laser & Sound fix)

[Purple Elephant1au](#) (Binds, Bugscore- & telenade fix, FT tool, Damage & Death info)

[James \(xNULL\)](#) (Master Servers Issue & Solution)

[Ley0k](#) (OpenMoHAA & UE4 project)

All people on the various MOHAA sites!!

A special thank you goes out to the [AAAA](#) & [xNULL](#) site for hosting this guide.



16. Links



AAAA

The 'Amalgamated Allied Assault Alliance'. Home to various clans and people of the MOHAA community. The AAAA host servers but is a non-profit organization, any extras will go to the development of MOHAAC, 1.12 patch and perhaps various other MOHAA related resources. It is currently home to the biggest Custom File Database (Maps, Mods, Skins etc.). They have now also sheltered the Mapping Tutorials from .MAP (while .MAP is down).



AlphaMAC

The newest Anti-Cheat (after MOHAAC went down). Created by RyBack. This new Anti-Cheat will also force screenshots on its players and record demos and upload these to the website. As well as scanning the person for any unwanted settings and files.



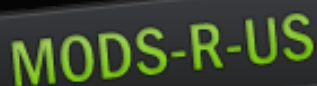
.MAP

This is an old site which is **currently DOWN**. It offered great mapping tutorials & reviews and it was the place to be for mappers (creating, scripting and sharing maps).



Map Mate

A new Mapping Tool/Compiler for MOHAA (created by Accadacca). It's still under development and works best with Allied Assault but it is useable. It's a huge tool with loads of editing options to make it less stressful and just easier to create your maps! Check out the site for all the included utilities.



Mods-R-Us

An old site that was home to modders, it might still hold lots of information that has been gathered throughout the years about modding and scripting.



ModTheater

The site that had the most active mappers, modders and scripters. If you need help with anything MOHAA related you should definitely visit the forums and take a look! If you can't find what you need, make a post!

ModTheater is currently DOWN.



MOHAA-ATHON

A group of people that setup a marathon for MOHAA. It's twice a year and consists out of an entire weekend with hundreds of players from all continents on a big TS, playing on about 6 different customized MOHAA-ATHON servers, playing little tournaments, big randomized scrims and public fun. This event brings the community a bit closer to each other. The main goal is to enjoy yourself and socialize with people!



MOHAAC Anti-cheat

The current Anti-cheat in MOHAA. It doesn't only scan for any cheats but also records demo's and makes screenshots automatically and uploads them after every game. It also has an in-build demo theater to watch demo's in slower and fast speeds, you can pause the demo and use X-Ray mode to be able to better detect cheaters in the demo. Documentation for MOHAAC can be found in [Appendix 19](#). **MOHAAC IS NOW ALSO DOWN.**

MoHAAS.net

Because Spearhead must not die!

MoHAAS.net

A Spearhead community. A bunch of clans and players who host events and play together. The MoHAAS.net creators have also created the MoHAAS.net tool, which is basically a list of clean servers that clans can become a part of. This tool was created when the Master Servers went down. All in all, their number 1 priority is to keep the game clean and alive!

MEDAL OF HONOR RECYCLING BIN

MoH Recycling Bin

A place where people could throw work that they either didn't finish or just wanted to share if anyone needed it, includes .map files, .bsp files, prefabs, tutorials etc.



Scapp

If you need to download scapp-host (newest Autokick program) or need help with it, well here is where it came from so the best information is found here. Next to scapp-host there is also the scapp-watchdog, GsProtector and other software that would be useful for your MOHAA servers! Documentation for these programs is available in [Appendix 20](#).



Spearhead Lounge

Another community of Spearhead clans and players who regularly have (custom map) events in SH. If you're a Spearhead player, you definitely want to check these guys out. They're keeping the SH community alive.



xNULL

Home of the 1.12 (Reborn) patch for MOHAA. Any issues regarding the patch or regarding any other bug or crash in MOHAA can be posted here. There are also plenty of people available to help with any scripting or modding problems. Documentation for the 1.12 (Reborn) patch is available in [Appendix 1](#).

Other Links

Besides the 'main' MOHAA related websites (as shown on the previous pages) there are a lot of other websites that contain useful information and/or downloads for people to look at, download and enjoy.

Below will be a list with several links to these websites that people might not know about, they will also be categorised for your convenience. It's possible a website can be divided into multiple categories (e.g. Tutorials & Downloads) but only one will be chosen (the category most present on the website).

IF for some reason any website is down, please try typing in the address at this site:

<http://archive.org/web/>

This is the 'Wayback Machine' and you'll be able to access the site as it was when it was still running (even if it was a few years ago), you might still be able to download things through it as well, although this doesn't always work. But any information should still be accessible.

Server List (AA/SH/BT)

<http://mohaaservers.tk/>

Models

<http://www.bb-mapping-designs.de/community/include.php?> *(In German)*

Tutorials

<http://axion9.webs.com/>

<http://gronnevik.se/rjukan/>

<http://onlinegames8.tripod.com/id41.html>

<http://www.surfacegroup.org/tutorials/>

<http://www.viziongrafx.com/moh/> *(Use Wayback Machine)*

<http://www.originart.eu/mohaa/index.html>

<http://www.shipbrook.net/jeff/skintut/index.html>

<http://www.steinhuder-meer-portal.de/mohaa/> *(In German)*

<http://moh.teasarspalace.com/>

<http://users.1st.net/kimberly/Tutorial/index.htm> *(Use Wayback Machine)*

[http://dynamic5.gamespy.com/~manstein/i ... =start.php](http://dynamic5.gamespy.com/~manstein/i...=start.php) *(Use Wayback Machine)*

http://smallsumo.leveledit.com/moh_index.html *(Use Wayback Machine)*

<http://homepage.eircom.net/~abyrne/sdk/>

http://www.caskami.com/menu_tutos_moh.php *(Use Wayback Machine) (In French)*



Downloads

[http://www.gamefront.com/files/listing/ ... d-Assault/](http://www.gamefront.com/files/listing/...d-Assault/) *(Use Wayback Machine)*
<http://medalofhonor.filefront.com/> *(Use Wayback Machine)*
<http://www.lonebullet.com/games/medal-of-honor-allied-assault-6699.htm> (AA)
<http://www.lonebullet.com/games/medal-of-honor-allied-assault-spearhead-6136.htm> (SH)
<http://www.lonebullet.com/games/medal-of-honor-allied-assault-breakthrough-6137.htm> (BT)
[http://www.fileplanet.com/32818/0/sekti ... nor-Series](http://www.fileplanet.com/32818/0/sekti...nor-Series)
<http://www.fpsadmin.com/>
<http://www.mohafiles.net/>
[http://www.moddb.com/games/medal-of-hon ... ed-assault](http://www.moddb.com/games/medal-of-hon...ed-assault)
<http://mohmaps.blogspot.nl/>
<http://www.ghost4free.com/mohaa.htm>
<http://axel68.fr/Mohaa.htm> *(In French)*
<http://mohaa.gamebanana.com/>
<http://www.mapraider.com/>
<http://www.invisiblewarriors.com/>
[http://planetmedalofhonor.gamespy.com/V ... ist&game=3](http://planetmedalofhonor.gamespy.com/V...ist&game=3)
<http://www.gamewatcher.com/games/medal-of-honor-allied-assault/mods>
<http://www.nexusmods.com/medalofhonor/mods/categories/?>
<http://www.nexusmods.com/medalofhonor/mods/searchresults/?> *(Same as above, different page)*
https://gamefront.online/files/listing/pub2/Medal_of_Honor/
<http://www.gamefront.com/games/medal-of-honor-allied-assault> *(Site bought by Mod DB)*

Single Player Walkthroughs/Guides

<http://www.viol.com/mohaa/>
[http://www.gamefaqs.com/pc/457649-medal ... ed-assault](http://www.gamefaqs.com/pc/457649-medal...ed-assault)
[http://www.ign.com/faqs/games/medal-of- ... t/pc-15983](http://www.ign.com/faqs/games/medal-of-...t/pc-15983)
[http://www.neoseeker.com/Games/Products ... /faqs.html](http://www.neoseeker.com/Games/Products.../faqs.html)

Easter Eggs

<http://spmetz2.tripod.com/eastereggs.html>
<http://www.eeggs.com/tree/5609.html>
<http://www.eeggs.com/tree/7754.html>
<http://www.eeggs.com/tree/8318.html>
[http://planetmedalofhonor.gamespy.com/V ... etail&id=8](http://planetmedalofhonor.gamespy.com/V...etail&id=8)



17. Social Media

The MOHAA community has also spread to social media. If you'd like to take a look or join in, feel free to do so! Few links are provided below.



[MOHAA ALIAS](#)

The biggest FB page for MOHAA where people share events with each other, get to know each other, find servers, get reunited with old MOHAA gamers and more!

[MOHAA-ATHON](#)

The facebook page specifically made for the MOHAA-ATHON, with lots of players who attended the event and information about the event.



[MOHAA Database](#)

@MOHAA_Database, the twitter account I'm running for any news, updates and information about MOHAA events, custom maps, custom skins, patches, software etc.



[Old School Mohaa Demos](#)

A page with a lot of videos of old MOHAA wars (Open Cups and Nation Cups mostly). Worth checking out and going on a trip in the past!

[United Warriors Demos](#)

Sniper demos, mostly from my old clan United Warriors. I couldn't resist putting the link in.



18. Appendix

The files from the appendixes are added in the same *.zip* file as the Guide itself.

- Appendix 1 - Reborn (1.12 patch) Documentation & PK3
- Appendix 2 - List of in-game Taunts
- Appendix 3 - Console Error Fixes
- Appendix 4 - Default Bindlist
- Appendix 5 - Mouse Acceleration Fix
- Appendix 6 - Lagometer
- Appendix 7 - Smoothness Guide (Q3 Engine)
- Appendix 8 - RCON Commands
- Appendix 9 - Coordinates
- Appendix 10 - MOHAA CI Code Explanation
- Appendix 11 - List of Cheat Commands
- Appendix 12 - Freeze-Tag Locations (Abbreviations)
- Appendix 13 – Software
 - *OpenSCR.zip* // Software to open and create .scr files
 - *pakscape.exe* // PapScape, PK3 software
 - *TextFilterSetup.exe* // MuseTips Text Filter, log filter software
- Appendix 14 - NVIDIA & ATI OpenGL Crash Fixes
- Appendix 15 - Intel HD OpenGL Crash Fixes
- Appendix 16 - PK3 Files
 - *grenade_fix.pk3* // Fix for telenading
 - *User_-_z_CKR_11.pk3* // CK Realism mod
 - *User_mapfix.2.4.pk3* // CMoHL Mapfix 2.4
 - *User-MorphinesSniperOnlyModv1.0.pk3* // Sniper Only mod
 - *zzzsp_soundsV2.pk3* // Single Player Sound-Fix
 - *PurpleEventhandler v 1.02.rar* // Bugscore Fix (and more)
 - *Freezetag_location_Helper.zip* // Freezetag Location Helper HUD
- Appendix 17 - AAAA Database Guide
- Appendix 18 - List of In-game Bugs & Glitches
- Appendix 19 - MOHAAC Documentation
- Appendix 20 - Scapp Software Documentation
- Appendix 21 - Walkthroughs & Guides (AA, SH & BT)
- Appendix 22 - Setting Tweaking Guide
- Appendix 23 - Abbreviations Explanation
- Appendix 24 - Dedicated Server Setup
- Appendix 25 - Port list
- Appendix 26 - (Custom) Map List
- Appendix 27 - Lists of Commands, CVARS & Settings
- Appendix 28 - admins.ini Editor (Reborn - 1.12 patch)
- Appendix 29 - Player Model List

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