

# Match Making

When playing online [multi-player](#) games, players must be able to find other game servers or matches. There are various ways of solving this problem.

## Classic Approaches

One classic approach to that problem is using a [master server](#), which the game clients are query, in order to gain a list of open matches and servers. After doing so, the player usually can see, what kind of game type, mode, or under which rules the server runs and how many players are currently active.

The next expansion on it are [lobby servers](#), where players can see open servers and matches and chat with one another. This adds a certain social component to the server search.

## Matches Instead of Servers

Another approach is to not simply start and list servers, but to request a so-called match (in the sense of playing one game) from master servers. Depending on the game, it may take a while, until a match is assigned to the requesting player. The match starts, once all required player slots are filled. The actual server then starts and you play with another (usually unknown) group of players. Depending on the game, a match may be assigned to individuals (1vs1, [FFA](#)), or fixed groups of players (e.g. up to five players in [counter-strike\\_global\\_offensive](#) or 2vs2 to 4vs4 matches for [Star Craft II](#)).

## Matching

However, these approaches may suffer from the fact, that anyone can open up a server/match and anyone may join such a server/match, even when the players abilities may differ vastly (skill). This leads to very unsatisfying game experiences, at least for the weaker player(s), but very often also for the stronger player(s).

In order to solve this problem, the match-making is actually matching players (in the sense of matching skills). So a match is not formed randomly, by simply joining parties or individuals into games, but the skill level of players or groups is considered. The advantage is, that the game experience is better in terms of challenge and winning prospects. However, the process of finding matching players may take (possibly even considerably) longer.

Also, the process is usually far from being perfect. Especially when the player base of a game is low, the wait time for a match can be considerable. If the skill filters are imposed as well, this might delay the finding of a suitable match even more. So there are many match making systems, that will trade availability for actual matching, to not keep players waiting inappropriately long.

But even under optimal conditions match making has been known to be not an easy task for the game designers. On many games you can still end up in unbalanced matches, especially when intentional manipulations, such as smurfing, come into place.

# Smurfing

Since the beginning of [competitive](#) play there were always players, that purposely tried to take advantage of weaker opponents. This of course goes especially for online games using match making, as you cannot guess who you will be playing against, when requesting a new match. Some players are intend on appearing weaker than they are, in order to find an easy target. This is widely considered to be unfair play, but there are also valid objections to that general rule. (E.g. trying out new, possibly risky strategies in order to see how effective they are, can be a valid reason to not try that with ones main account.) In order to manipulate the match making functionality, these players use one of the following three ways of making the matching algorithms consider them as less strong than they actually are.

## Secondary Account

The easiest way is to create another account. In the beginning the match making algorithms have no way of guessing the skill level of a player reliably. Usually the game will match the player with different skill levels, in order to see how well the player does and to give a first estimate of his skill level. Especially during that time, he will most likely face weaker opponents. The method can also be combined with simply [Quitting](#), when facing a strong(er) opponent.

## Quitting

The other simple move is to quit the match. On games like [Starcraft II](#) some players simply forfeit the match early on. When doing so a few times, the player is then considered in a lower level skill region and subsequently will be matched with actual weaker players.

## Playing Weakly

The not as easy but nevertheless effective way of manipulating match making is to actually play worse on purpose. This can be done in various ways. In [strategy games](#) one might play only using the mouse, while in [shooters](#) playing with a different mouse sensitivity or using a touch pad or controller, instead of a mouse can make one play worse, while still seriously trying to win.

## Counter Measurements

As the quitting approach is actually very obviously spottable, some games like [counter-strike\\_global\\_offensive](#) react to such a behavior. When quitting a match early (not playing it out until the end) you get a penalty time, during which you cannot participate in another match. Of course also this strategy has its weak points, as the player can simply make use of the [secondary account](#) tactics, just switching to another account and continue to play there.

Also the difference between actually playing worse than usually (having a bad day) and playing badly on purpose is in principle not easy to determine. A sudden huge change in game skill may be an indication, that a manipulation attempt is going on, but it must not necessarily be smurfing. Playing

while drunk, for example often leads to considerably lower performance. Blocking such a player, ranking him lower or keeping his skill level is not an easy decision. So there is an inherent problem with proper matching in general, which will never be solvable conclusively.

[ [games\\_database](#) ] [ [game\\_related\\_terms](#) ]

From:

<https://mwohlauer.d-n-s.name/wiki/> - **mwohlauer.d-n-s.name** / **www.mobile-infanterie.de**

Permanent link:

[https://mwohlauer.d-n-s.name/wiki/doku.php?id=en:gaming\\_theory:match\\_making&rev=1648849306](https://mwohlauer.d-n-s.name/wiki/doku.php?id=en:gaming_theory:match_making&rev=1648849306)

Last update: **2022-04-01-21-41**

