Tools to tweak FarCry Multiplayer
(Public Information)
Crytek GmbH

In general playing on LAN is much less problematic than playing in Internet. There we are faced with packet loss, low bandwidth, bad ping and changing conditions. This document can help you to find the right settings to improve your game experience. Some setting can be made on the client, others on the server. You should not play on the server if possible. The dedicated server application offers you a much more stable world simulation. This is because the game rendering affects the world simulation and in that case the experience of the other players as well.

Shortcuts:

MP	multi player
SP	single player
CMD	player input commands send from client to server (small for player movement, bigger but sent half as often if driving a vehicle)
UPDATE	world update send from server to client (the amount scales with the amount of players and depends on their activity e.g. shooting, driving, using mounted weapons)

Identify the problem type:

- Watch the peaks with "profile 1" on the client (screen output) and on the server (console output)
- Watch what kind of actions are going on (e.g. several players killed by a vehicle, round restart)
- Physics simulation time (is more than in SP especially with varying ping)
- Low main memory (keep FarCry in window mode and check in the task manager the FarCry process before and after you recognize the problem)
- Client out bandwidth limited (send CMD for 1 player)
- Client in bandwidth limited (get UPDATE for 1 player)
- Server out bandwidth limited (send UPDATE for x players)
- Server in bandwidth limited (get CMD from x players)
- Rendering performance (vary the graphics quality settings – the lowest setting might not be the fastest)
- Sound performance (vary sound settings – test with software mixing and with hardware mixing)
- Bad ping to the server (avoid server with high pings – there is not that much that the client can do about a bad network connection – although some settings on the server might be able to reduce the problem)

<u>Console variables:</u>

sv_DedicatedMaxRate (dedicated server only): This console variable enables you to limit the processing time on the server. Bigger values might improve the server response time and therefore reduce the lag whereas smaller values free processor resources. The default value of might be too high for a typical internet server. Try values from 20 to 80. Some people believe 30 is a good compromise. If you want to run a client on the same computer as well (not advised) you should limit it even on LAN.

g_MP_fixed_timestep (Server only): This is the time step size in seconds for the physics simulation on client and on server. Smaller values might improve the physics calculation whereas bigger values might free a lot of processor resources. If physics simulation is the problem you might be able fix it with this variable. If a client had some network problems (e.g. packet drop which is common in Internet) physics simulation has to be done for the time passed to compensate the lag. Especially on weak client (processor power) this might produce further problems. Try bigger values than 0.01 until you recognize worse physics problems. All clients get the setting from the server because our system relies on similar simulations on all computers.

sv_maxrate_lan (Server only, for LAN) or **sv_maxrate** (Server only, for Internet): With this variable you can specify the maximum rate (bits per second) for all clients. It can be further limited by the clients themselves with the **cl_rate** (client only) command. The value is only needed if there are a lot of network traffic and the amount need to be reduced. The more players play on a server the more data needs to be sending to each individual client. A good value depends not only on the environment (network connection) but also on the amount of players and the level (size, amount of vehicles, mounted weapons, weapon types).

sv_maxcmdrate (Server only): With this variable you can limit the number of CMD packets sent from client to server for all connected clients. The actual rate is limited by the client setting with cl_ **cmdrate** (Client only). Bigger values can improve the responsiveness of the player input. Smaller values result in less bandwidth occupation.

sv_maxupdaterate (Server only): With this variable you can limit the rate of UPDATE packets sent from the server to the client. The actual value is limit by the client setting which you can specify with **cl_updaterate** (Client only)

<u>Tip:</u>

You can get more info by reading the console command help.
Simply add the "?" behind the console command and press enter.

e.g.:

\sv_rate ?