## BF3 PC Server Remote Administration Protocol

This is the remote-administration protocol used by BF3 PC Server R9.

It is work-in-progress; features are first added to the game, and then controlling commands are added to the Remote Administration interface.

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## **About**

This document describes how to communicate with the Remote Administration interface that is present in BFBC2 PC servers. The protocol is bidirectional, and allows clients to send commands to the server as well as the server to send events to clients.

The protocol is designed for machine-readability, not human-readability. It is the basis for all graphical remote administration tools.

## Low-level protocol

# Packet format int32

32-bit unsigned integer

1 byte bits 7..0 of value
1 byte bits 15..8 of value
1 byte bits 23..16 of value
1 byte bits 31..24 of value

#### Word

int32 Size Number of bytes in word, excluding trailing null byte char[] Content Word contents -- must not contain any null bytes char Terminator Trailing null byte

## **Packet**

int32 Sequence Bit 31: 0 = The command in this command/response pair originated on the server

1 = The command in this command/response pair originated on the client

Bit 30: 0 = Request, 1 = Response

Bits 29..0: Sequence number (this is used to match requests/responses in a full duplex

transmission)

int32 Size Total size of packet, in bytes

int32 NumWords Number of words following the packet header

Word[N] Words N words

A packet cannot be more than 16384 bytes in size.

#### Protocol behaviour

The client communicates with the server using a request/response protocol. Each request contains a sequence number which grows monotonically, a flag which indicates whether the command originated on the client or the server, and one word containing the command name. In addition to this, a command can have zero or more arguments.

Every request must be acknowledged by a response. The response includes the same sequence number, and the same origin flag. However, it has the response flag set.

Sequence numbers are unique within one server-client connection. Thus, the same sequence number can be used when the server is communicating with different clients.

Responses must contain at least one word. The first word can be one of the following:

OK - request completed successfully

UnknownCommand - unknown command

InvalidArguments - Arguments not appropriate for command

<other> - command-specific error

OK is the only response which signifies success.

Subsequent arguments (if any) are command-specific.

The server is guaranteed to adhere to this protocol specification. If the client violates the protocol, the server may close the connection without any prior notice.

#### **Comments**

The format of the Words portion of a packet is designed such that it shall be easy to split it into individual words in both C++ and Python. Any numerical arguments are always transferred in string form (not in raw binary form).

The protocol is designed to be fully bidirectional.

#### **Parameter formats**

## **String**

An 8bit ASCII string. Must not contain any characters with ASCII code 0.

#### **Boolean**

Two possible values:

true

false

## **HexString**

A stream of hexadecimal digits. The stream must always contain an even number of digits. Allowed characters are: 0123456789ABCDEF

### **Password**

A password is from 0 up to 16 characters in length, inclusive. The allowed characters are: abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

## **Filename**

A filename is from 1 up to 240 characters in length, inclusive. The allowed characters are: abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789.\_-

## **Clantag**

A clan tag is from 0 to an unknown number of characters in length. At the time of writing, it is unclear which the allowed characters are.

## Player name

The "player name" (referred to as "Soldier name" in-game) is the persona name which the player chose when logging in to EA Online. The exact specification of a player name (length, valid characters, etc.) is currently unclear.

### **GUID**

The GUID is a unique identifier for a player. It is 35 characters long, consists of the prefix "EA\_" immediately followed by a 32-character HexString.

#### **Team ID**

An integer.

Team 0 is neutral. Depending on gamemode, there are up to 16 non-neutral teams, numbered 1..16.

## **Squad ID**

An integer.

Squad 0 is "no squad". Depending on gamemode, there are up to 8 squads numbered 1..8.

Note that squad ID are local within each team; that is, to uniquely identify a squad you need to specify both a Team ID and a Squad ID.

#### Player subset

Several commands – such as admin.listPlayers – take a player subset as argument.

A player subset is one of the following:

all - all players on the server

team <team number: Team ID> - all players in the specified team

squad <team number: Team ID> <squad number: Squad ID> - all players in the specified team+squad

player <player name: string> - one specific player

#### **Timeout**

Some commands, such as bans, take a timeout as argument.

A timeout is one of the following:

perm - permanent

round - until end of round seconds <number of seconds: integer> - number of seconds

## **Id-type**

Some commands, such as bans, take an id-type as argument

An id-type is one of the following:

name - Soldier name
ip - IP address
guid - Player's GUID

## Player info block

The standard set of info for a group of players contains a lot of different fields. To reduce the risk of having to do backwards-incompatible changes to the protocol, the player info block includes some formatting information.

<number of parameters> - number of parameters for each player

N x <parameter type: string> - the parameter types that will be sent below <number of players> - number of players following

M x N x <parameter value> - all parameter values for player 0, then all parameter

values for player 1, etc.

Current parameters:

name string - player name guid GUID - player's GUID

teamId Team ID - player's current team squadId Squad ID - player's current squad

kills integer - number of kills, as shown in the in-game scoreboard deaths integer - number of deaths, as shown in the in-game scoreboard

score integer - score, as shown in the in-game scoreboard

#### **Team scores**

This describes the number of tickets, or kills, for each team in the current round.

<number of entries: integer> - number of team scores that follow

N x <score: integer> - score for all teams

<target score: integer> - when any team reaches this score, the match ends

## **IpPortPair**

A string on the following format:

<IPv4 address>:<port number>

## **MapList**

This describes the set of maps which the server rotates through. Format is as follows:

<number of maps: integer> - number of maps that follow
<number of words per map: integer> - number of words per map

<map name: string> - name of map

<gamemode name: string> - name of gamemode

<number of rounds: integer> - number of rounds to play on map before switching

The reason for the <number of words per map> specification is future proofing; in the future, DICE might add extra words per map after the first three. However, the first three words are very likely to remain the same.

#### **Server events**

Most commands require the client to be logged in. Before the client has logged in, only 'login.plainText', 'login.hashed', 'logout', 'version', 'listPlayers', 'serverInfo' and 'quit' commands are available.

## **Summary**

Command	Description
player.onAuthenticated	Player with name <soldier name=""> has joined the server</soldier>
player.onJoin	Player with name <soldier name=""> has joined the server</soldier>
player.onLeave	with name <soldier name=""> has left the server</soldier>
player.onSpawn	Player with name <soldier name=""> has spawned in</soldier>
player.onKill	Player with name <killing name="" soldier=""> has killed <killed name="" soldier=""></killed></killing>
player.onChat	Chat message has been sent to a group of people
player.onSquadChange	Player might have changed squad
player.onTeamChange	Player might have changed team
punkBuster.onMessage	PunkBuster server has output a message
server.onLevelLoaded	Level has loaded
server.onRoundOver	Round has ended
server.onRoundOverPlayers	Player stats at end-of-round

Team stats at end-of-round

## **Player events**

server.onRoundOverTeamScores

Request: player.onAuthenticated <soldier name: string>

Response: OK

Effect: Player with name < soldier name > has joined the server

Request: player.onJoin <soldier name: string> <id: GUID>

Response: OK

Effect: Player with name < soldier name > has joined the server

Request: player.onLeave <soldier name: string> <soldier info: player info block>

Response: OK

Effect: Player with name <soldier name> has left the server; his last set of stats were <soldier info>

Request: player.onSpawn <soldier name: string> <team: Team ID>

Response: OK

Effect: Player with name <soldier name> has spawned in, with team <team>

NOTE The <team> specifier is probably superfluous information and might get removed in the future

Request: player.onKill <killing soldier name: string> <killed soldier name: string> <weapon: string>

<headshot: boolean>

Response: OK

Effect: Player with name <killing soldier name> has killed <killed soldier name>

Suicide indication is unknown at this moment.

If the server kills the player (through admin.killPlayer), the result is unknown.

Request: player.onChat <source soldier name: string> <text: string>

Response: OK

Effect: Player with name <source soldier name> (or the server, or the server admin) has sent chat

message <text> to some people

Comment: If <source soldier name> is "Server", then the message was sent from the server rather than from an

actual player

Request: player.onSquadChange <soldier name: player name> <team: Team ID> <squad: Squad ID>

Response: OK

Effect: Player might have changed squad

Request: player.onTeamChange <soldier name: player name> <team: Team ID> <squad: Squad ID>

Response: OK

Effect: Player might have changed team

## **Misc**

Request: punkBuster.onMessage <message: string>

Response: OK

Effect: PunkBuster server has output a message

Comment: The entire message is sent as a raw string. It may contain newlines and whatnot.

## Level/Round

Request: server.onLevelLoaded < level name: string > < gamemode: string > < roundsPlayed: int >

<roundsTotal: int>

Response: OK

Effect: Level has completed loading, and will start in a bit

Request: server.onRoundOver <winning team: Team ID>

Response: OK

Effect: The round has just ended, and <winning team> won

Request: server.onRoundOverPlayers <end-of-round soldier info: player info block>

Response: OK

Effect: The round has just ended, and <end-of-round soldier info> is the final detailed player stats

Request: server.onRoundOverTeamScores <end-of-round scores: team scores>

Response: OK

Effect: The round has just ended, and <end-of-round scores> is the final ticket/kill/life count for each team

#### **Client commands**

Most commands require the client to be logged in. Before the client has logged in, only 'login.plainText', 'login.hashed', 'logout', 'version', 'serverInfo', 'listPlayers' and 'quit' commands are available.

**Summary** Command Description login.plainText <password> Attempt to login to game server with password Retrieves the salt, used in the hashed password login process login.hashed login.hashed <passwordHard> Sends a hashed password to the server, in an attempt to log in serverinfo Query for brief server info admin.help Report which commands the server knows about logout Logout from game server Disconnect from server quit version Reports game server type, and build ID listPlayers <players> Return list of a group of players on the server, without GUIDs Set whether or not the server will send events to the current connection admin.eventsEnabled <enabled> admin.password [password] Set the admin password for the server admin.say <message, players> Send a chat message to a group of players admin.kickPlayer < soldier name, reason> Kick player <soldier name> from server admin.listPlayers <players> Return list of a group of players on the server admin.movePlayer <name, teamID, squadID, forceKill> Move a player to another team and squad admin.killPlayer < name> Kill a player without scoring effects punkBuster.isActive Returns whether or not PunkBuster currently is active punkBuster.activate Attempt to activate PunkBuster if it is not currently running punkBuster.pb sv command <command > Send a raw PunkBuster command to the PunkBuster server gameAdmin.load Load list of game admins from file gameAdmin.save Save list of game admins to file gameAdmin.add <player> <restrLevel> Add player to list of game admins gameAdmin.remove <player> Remove player from list of game admins gameAdmin.list Return list of game admins banList.load Load list of banned players/IPs/GUIDs from file banList.save Save list of banned players/IPs/GUIDs to file banList.add <id-type, id, timeout, reason> Add player/IP/GUID to ban list for a certain amount of time Remove player/IP/GUID from ban list banList.remove <id-type, id> banList.clear Clears ban list banList.list [startIndex] Return part of the list of banned players/IPs/GUIDs reservedSlotsList.load Load list of reserved soldier names from file Save list of reserved soldier names to file reservedSlotsList.save reservedSlotsList.add <name> Add <name> to list of players who can use the reserved slots reservedSlotsList.remove <name> Remove <name> from list of players who can use the reserved slots Clear reserved slots list reservedSlotsList.clear Retrieve list of players who can utilize the reserved slots reservedSlotsList.list

> Load list of maps from disk Save list of maps to disk

Remove specified map from map list

mapList.add <map> <gamemode> <rounds> <offset> Insert map at specified offset in map list

mapList.clear Clear map list

mapList.list Returns entire map list

mapList.load

mapList.save

mapList.remove <index>

mapList.setNextMapIndex <index> Set which map to switch to at end of current round

mapList.getMapIndices Get indices for current & next map

mapList.getRounds Get current round and number of rounds

mapList.endRound <teamID> End current round, declaring the specified team as winners

mapList.runNextRound Abort current round and move on to next

mapList.restartRound Restart current round mapList.availableMaps Currently broken!

vars.ranked Change the server between ranked/unranked modevars.serverName

[name] Set the server name

vars.gamePassword [password] Set the game password for the server vars.autoBalance [enabled] Set if the server should autobalance

vars.roundStartPlayerCount [numPlayers] Set minimum numbers of players to go from preround to in-round vars.roundRestartPlayerCount [numPlayers] Set minimum numbers of players to go from in-round to preround

vars.serverMessage TODO: document vars.killRotation TODO: document

vars.friendlyFire [enabled] Set if the server should allow team damage vars.maxPlayers [nr of players] Set desired maximum number of players

vars.bannerUrl [url] TODO: document
vars.serverDescription [description] TODO: document
vars.killCam [enabled] Set if killcam is enabled

vars.killCam [enabled]

vars.miniMap [enabled]

vars.hud [enabled]

Set if killcam is enabled

Set if minimap is enabled

vars.hud [enabled]

Set if HUD is enabled

vars.crossHair [enabled]Set if crosshair for all weapons is enabledvars.3dSpotting [enabled]Set if spotted targets are visible in the 3d-worldvars.miniMapSpotting [enabled]Set if spotted targets are visible on the minimap

vars.nameTag [enabled] Set if nametags should be displayed

vars.3pCam [enabled] Set if allowing to toggle to third person vehicle cameras

vars.regenerateHealth [enabled] Set if health regeneration should be active vars.teamKillCountForKick [count] Set number of teamkills allowed during a round

vars.teamKillValueForKick [count] Set max kill-value allowed for a player before he/she is kicked

vars.teamKillValueIncrease [count] Set kill-value increase for a teamkill vars.teamKillValueDecreasePerSecond [count] Set kill-value decrease per second

vars.teamKillKickForBan [count] Set number of team-kill kicks that will lead to permaban

vars.idleTimeout [time] Set idle timeout

vars.idleBanRounds [enabled] Set how many rounds idle timeout should ban (if at all)

vars.vehicleSpawnAllowed [enabled] Set whether vehicles should spawn in-game

vars.vehicleSpawnDelay [modifier: percent] Set vehicle spawn delay scale factor vars.soldierHealth [modifier: percent] Set soldier max health scale factor vars.playerRespawnTime [modifier: percent] Set player respawn time scale factor vars.playerManDownTime [modifier: percent] Set player man-down time scale factor

vars.bulletDamage [modifier: percent] Set bullet damage scale factor

vars.gameModeCounter [modifier: integer] Set scale factor for number of tickets to end round vars.onlySquadLeaderSpawn [enabled] Set if players can only spawn on their squad leader

vars.allUnlocksUnlocked [enabled] Set if all weapons & gadgets should be available to players

vars.roundsPerMap TODO: investigate this

### Misc

Request: login.plainText <password: string>

Response: OK - Login successful, you are now logged in regardless of prior status

Response: InvalidPassword - Login unsuccessful, logged-in status unchanged
Response: PasswordNotSet - Login unsuccessful, logged-in status unchanged

Response: InvalidArguments

Effect: Attempt to login to game server with password <password>

Comments: If you are connecting to the admin interface over the internet, then use login.hashed instead to avoid

having evildoers sniff the admin password

Request: login.hashed

Response: OK <salt: HexString> - Retrieved salt for the current connection

Response: PasswordNotSet - No password set for server, login impossible

Response: InvalidArguments

Effect: Retrieves the salt, used in the hashed password login process

Comments: This is step 1 in the 2-step hashed password process. When using this people cannot sniff your admin

password.

Request: login.hashed <passwordHash: HexString>

Response: OK - Login successful, you are now logged in regardless of prior status

Response: PasswordNotSet - No password set for server, login impossible
Response: InvalidPasswordHash - Login unsuccessful, logged-in status unchanged

Response: InvalidArguments

Effect: Sends a hashed password to the server, in an attempt to log in

Comments: This is step 2 in the 2-step hashed password process. When using this people cannot sniff your admin

password.

Request: logout

Response: OK - You are now logged out regardless of prior status

Response: InvalidArguments

Effect: Logout from game server

Request: quit Response: OK

Response: InvalidArguments

Effect: Disconnect from server

Request: version

Response: OK BF3 <version>
Response: InvalidArguments

Effect: Reports game server type, and build ID

Comments: Game server type and build ID uniquely identify the server, and the protocol it is running.

Request: listPlayers <players: player subset>

Response: OK <player info>
Response: InvalidArguments

Effect: Return list of all players on the server, but with zeroed out GUIDs

Request: admin.eventsEnabled [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set whether or not the server will send events to the current connection

Request: admin.password [password: password]

Response: OK - for set operation
Response: OK <password> - for get operation

Response: InvalidArguments

Response: InvalidPassword - password does not conform to password format rules

Effect: Set the admin password for the server, use it with an empty string("") to reset

Request: admin.help

Response: OK <all commands available on server, as separate words>

Response: InvalidArguments

Effect: Report which commands the server knows about

### **PunkBuster**

Request: punkBuster.isActive Response: OK <active: Boolean>

Effect: Query whether the PunkBuster server module is active

Request: punkBuster.activate

Response: OK

Effect: Attempt to activate PunkBuster server module if it currently is inactive

Request: punkBuster.pb\_sv\_command < command: string>

Response: OK - Command sent to PunkBuster server module

Response: InvalidArguments

Response: InvalidPbServerCommand - Command does not begin with "pb sv "

Effect: Send a raw PunkBuster command to the PunkBuster server

Comment: The entire command is to be sent as a single string. Don't split it into multiple words.

## Query

Request: serverInfo

Response: OK <serverName: string> <current playercount: integer> <max playercount: integer>

<current gamemode: string> <current map: string>

<roundsPlayed: integer> <roundsTotal: string> <scores: team scores> <onlineState: online state>

<ranked: boolean> <punkBuster: boolean> <hasGamePassword: boolean>
<serverUpTime: seconds> <roundTime: seconds> <gameIpAndPort: IpPortPair>

<punkBusterVersion: string> <joinQueueEnabled: boolean>

<region: string> <closestPingSite: string> <country: string>

Response: InvalidArguments

Effect: Query for brief server info.

Comments: This command can be performed without being logged in.

Some of the return values will be empty or zero when the server isn't fully up and running or

between levels.

Some return values are not yet implemented, and will therefore be zero.

#### **Communication**

Request: admin.say <message: string> <players: player subset>

Response: OK

Response: InvalidArguments
Response: InvalidTeam
Response: InvalidSquad
Response: InvalidPlayer
Response: TooLongMessage

Effect: Send a chat message to players. The message must be less than 128 characters long.

NOTE current it is only possible to send messages to all, teams or squads – not to individual players!

## **Manage players**

Request: admin.kickPlayer <soldier name: player name> [reason: string]
Response: OK - Player did exist, and got kicked

Response: InvalidArguments

Response: PlayerNotFound - Player name doesn't exist on server

Effect: Kick player < soldier name > from server

Comments: Reason text is optional. Default reason is "Kicked by administrator".

Request: admin.listPlayers <players: player subset>

Response: OK <player info>
Response: InvalidArguments

Effect: Return list of all players on the server; including guids

Request: admin.movePlayer <name: player name> <teamId: Team ID> <squadId: Squad ID> <forceKill: boolean>

Response: OK

Response: InvalidArguments
Response: InvalidTeamId
Response: InvalidSquadId
Response: InvalidPlayerName
Response: InvalidForceKill

Response: PlayerNotDead - Player is alive and forceKill is false

Response: SetTeamFailed Response: SetSquadFailed

Effect: Move a player to another team and/or squad

Comment: Only works if player is dead. This command will kill player if forceKill is true

Request: admin.killPlayer < name: player name>

Response: OK

Response: InvalidArguments
Response: InvalidPlayerName
Response: SoldierNotAlive

Effect: Kill a player without any stats effect

## **Banning**

Request: banList.load

Response: OK

Response: InvalidArguments
Response: InvalidIdType
Response: InvalidBanType

Response: InvalidTimeStamp - A time stamp could not be read
Response: IncompleteBan - Incomplete ban entry at end of file

Response: AccessError - Could not read from file

Effect: Load list of banned players/IPs/GUIDs from file

Comment: 5 lines (Id-type, id, ban-type, time and reason) are retrieved for every ban in the list.

Entries read before getting InvalidIdType, InvalidBanType, InvalidTimeStamp and IncompleteBan

is still loaded.

Request: banList.save

Response: OK

Response: InvalidArguments

Response: AccessError - Could not save to file

Effect: Save list of banned players/IPs/GUIDs to file

Comment: 5 lines (Id-type, id, ban-type, time and reason) are stored for every ban in the list.

Every line break has windows "\r\n" characters.

Request: banList.add <id-type: id-type> <id: string> <timeout: timeout> [reason: string]

Response: OK

Response: InvalidArguments

Response: BanListFull

Effect: Add player to ban list for a certain amount of time

Comments: Adding a new name/IP/GUID ban will replace any previous ban for that name/IP/GUID

timeout can take three forms:

perm - permanent [default] round - until end of round

seconds <integer> - number of seconds until ban expires

Id-type can be any of these

name – A soldier name ip – An IP address guid – A player guid

Id could be either a soldier name, ip address or guid depending on id-type.

Reason is optional and defaults to "Banned by admin"; max length 80 chars.

Request: banList.remove <id-type: id-type> <id: string>

Response: OK

Response: InvalidArguments

Response: NotFound - Id not found in banlist; banlist unchanged

Effect: Remove name/ip/guid from banlist

Request: banList.clear

Response: OK

Response: InvalidArguments
Effect: Clears ban list

Request: banList.list [startOffset: integer]

Response: OK <player ban entries>

Response: InvalidArguments

Effect: Return a section of the list of banned players' name/IPs/GUIDs.

Comment: The list starts with a number telling how many bans the call returns.

After that, 5 words (Id-type, id, ban-type, time and reason) are received for every ban in the list.

If no startOffset is supplied, it is assumed to be 0. At most 100 entries will be returned by the command.

To retrieve the full list, perform several banList.list calls with increasing offset until the

server returns 0 entries.

(There is an unsolved synchronization problem hidden there: if a ban expires during this process, then one other entry will be skipped during retrieval. There is no known workaround for this.)

## **MapList**

Request: mapList.load

Response: OK

Response: InvalidArguments

Response: AccessError – file I/O error

Response: InvalidMap – incorrect map name

Response: InvalidGameModeOnMap – gamemode does not exist for that map
Response: InvalidRoundsPerMap – number of rounds must be 1 or greater
Response: Full – Map list maximum size has been reached

Effect: Clears the map list and loads it from disk again.

Comments: If loading fails, the map list will be in an undefined state.

Request: mapList.save

Response: OK

Response: InvalidArguments

Response: AccessError – file I/O error

Effect: Saves the map list to disk.

Request: mapList.add <map: string> <gamemode: string> <rounds: integer>

[index: integer]

Response: OK

Response: InvalidArguments

Response: InvalidMap – incorrect map name

Response: InvalidGameModeOnMap – gamemode does not exist for that map
Response: InvalidRoundsPerMap – number of rounds must be 1 or greater
Response: Full – Map list maximum size has been reached

Response: InvalidMapIndex – Index value is out of range

Effect: Adds the map <map>, with gamemode <gamemode>, for <rounds> rounds, to the

maplist. If <index> is not specified, it is appended to the end; otherwise, it is inserted

before the map which is currently at position <index>.

Request: mapList.remove <index: integer>

Response: OK

Response: InvalidArguments

Response: InvalidMapIndex — Index value is out of range Effect: Removes the map at offset <index> from the maplist.

Request: mapList.clear

Response: OK

Response: InvalidArguments
Effect: Clears the map list.

Request: mapList.list

Response: OK <entire map list: MapList>

Response: InvalidArguments

Effect: Returns the entire map list.

Request: mapList.setNextMapIndex <index: integer>

Response: OK

Response: InvalidArguments

Response: InvalidMapIndex – Index value is out of range

Effect: Specifies which map to switch to once the current round completes. If there are rounds remaining

on the current map, those rounds will be skipped.

Request: mapList.getMapIndices

Response: OK <current map index: integer> <next map index: integer>

Response: InvalidArguments

Effect: Returns the index of the map that is currently being played, and the index of the next map to run.

Request: mapList.getRounds

Response: OK <current round: integer> <total rounds to play on this map: integer>

Response: InvalidArguments

Effect: Returns the (1-based) current round number, and total number of rounds before switching map.

Request: mapList.runNextRound

Response: OK

Response: InvalidArguments

Effect: Switches immediately to the next round, without going through the end-of-round sequence.

Request: mapList.restartRound

Response: OK

Response: InvalidArguments

Effect: Restarts the current round, without going through the end-of-round sequence.

Request: mapList.endRound <winner: Team ID>

Response: OK

Response: InvalidArguments

Effect: End the current round, declaring <winner> as the winning team

Request: mapList.availableMaps <...>

Response: OK

Effect: Currently broken!

#### **Variables**

Request: vars.ranked [ranked: boolean]

Response: OK - for set operation
Response: OK <ranked: boolean> - for get operation

Response: InvalidArguments

Effect: Change the server between ranked/unranked mode

Comments: This command can only be used during startup. It can only be used to switch the server from

ranked to unranked mode; the server can never switch back to ranked mode again.

Request: vars.serverName [name: string]

Response: OK - for set operation
Response: OK <name> - for get operation

Response: InvalidArguments

Response: TooLongName - for set operation

Effect: Set server name

Request: vars.gamePassword [password: password]
Response: OK - for set operation
Response: OK <password> - for get operation

Response: InvalidArguments

Response: InvalidPassword - password does not conform to password format rules

Response: InvalidConfig - password can't be set if ranked is enabled

Effect: Set the game password for the server, use it with an empty string("") to reset

Request: vars.autoBalance [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if the server should autobalance

Request: vars.friendlyFire [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Response: LevelNotLoaded - for set operation

Effect: Set if the server should allow team damage

Delay: Works after round restart

Comment: Not available during level load.

Request: vars.maxPlayers [nr of players: integer]

Response: OK - for set operation
Response: OK <nr of players: integer> - for get operation

Response: InvalidArguments

Response: InvalidNrOfPlayers - Player limit must be in the range 8..32

Effect: Set desired maximum number of players

Comment: The effective maximum number of players is also effected by the server provider, and the game

engine

Request: vars.killCam [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if killcam is enabled Delay: Works after map switch

Request: vars.miniMap [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if minimap is enabled Delay: Works after map switch

Request: vars.hud [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if players hud is available Delay: Works after round restart

Request: vars.crossHair [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if crosshair for all weapons is enabled

Delay: Works after map switch

Request: vars.3dSpotting [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if spotted targets are visible in the 3d-world

Delay: Works after map switch

Request: vars.miniMapSpotting [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if spotted targets are visible on the minimap

Delay: Works after map switch

Request: vars.nameTag [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if nametags should be displayed

Delay: Works after map switch

Request: vars.3pCam [enabled: boolean]

Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if players should be allowed to switch to third-person vehicle cameras

Delay: Unknown

Request: vars.regenerateHealth [enabled: boolean]
Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if players health regeneration is active

Delay: Instantaneous

Request: vars.teamKillCountForKick [count: integer]
Response: OK - for set operation
Response: OK <count: integer> - for get operation

Response: InvalidArguments

Effect: Set number of teamkills allowed during one round, before the game kicks the player in question

Set to 0 to disable kill counting

Delay: Instantaneous

Request: vars.teamKillValueForKick [count: integer]
Response: OK - for set operation
Response: OK <count: integer> - for get operation

Response: InvalidArguments

Effect: Set the highest kill-value allowed before a player is kicked for teamkilling

Set to 0 to disable kill value mechanism

Delay: Instantaneous

Request: vars.teamKillValueIncrease [count: integer]
Response: OK - for set operation
Response: OK <count: integer - for get operation

Response: InvalidArguments

Effect: Set the value of a teamkill (adds to the player's current kill-value)

Delay: Instantaneous

Request: vars.teamKillValueDecreasePerSecond [count: integer]

Response: OK - for set operation

Response: OK <count: integer> - for get operation

Response: InvalidArguments

Effect: Set how much every player's kill-value should decrease per second

Delay: Instantaneous

Request: vars.teamKillKickForBan [count: integer]
Response: OK - for set operation
Response: OK <count: integer> - for get operation

Response: InvalidArguments

Effect: Set how many teamkill-kicks will lead to permaban

Set to 0 to disable feature

Delay: Instantaneous

Request: vars.idleTimeout [time: seconds]

Response: OK - for set operation
Response: OK <time: seconds> - for get operation

Response: InvalidArguments

Effect: Set how many seconds a player can be idle before he/she is kicked from server

Set to 0 to disable idle kick

Delay: Instantaneous

Request: vars.idleBanRounds [number of rounds: integer]
Response: OK - for set operation
Response: OK < rounds: integer> - for get operation

Response: InvalidArguments

Effect: Set how many rounds an idle-kick person should be banned

Set to 0 to disable ban mechanism

Delay: Instantaneous

Request: vars.roundStartPlayerCount [nr of players: integer]
Response: OK [nr of players: integer] - for set operation
Response: OK < nr of players: integer > - for get operation

Response: InvalidArguments

Effect: Set the minimum number of players required to begin a round

Delay: Takes effect next round

Note: If the server is ranked, and the value gets clamped during a set operation,

then the clamped value is returned as part of the response

Request: vars.roundRestartPlayerCount [nr of players: integer]

Response: OK [nr of players: integer] - for set operation Response: OK < nr of players: integer > - for get operation

Response: InvalidArguments

Effect: Set the minimum number of players for the round to restart in pre-round

Delay: Takes effect next round

Note: If the server is ranked, and the value gets clamped during a set operation,

then the clamped value is returned as part of the response

Request: vars.vehicleSpawnAllowed [enabled: boolean]
Response: OK - for set operation

Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set whether vehicles should spawn in-game

Delay: Instantaneous

Request: vars.vehicleSpawnDelay [modifier: integer]
Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set vehicle spawn delay scale factor, in percent

Delay: Instantaneous

Request: vars.soldierHealth [modifier: integer]

Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set soldier max health scale factor, in percent

Delay: Instantaneous

Request: vars.playerRespawnTime [modifier: integer]
Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set player respawn time scale factor, in percent

Delay: Instantaneous

Request: vars.playerManDownTime [modifier: integer]
Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set player man-down time scale factor, in percent

Delay: Instantaneous

Request: vars.bulletDamage [modifier: integer]

Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set bullet damage scale factor, in percent

Delay: Instantaneous

Request: vars.gameModeCounter [modifier: integer]
Response: OK - for set operation
Response: OK < modifier: integer > - for get operation

Response: InvalidArguments

Effect: Set scale factor for number of tickets to end round, in percent

Delay: Instantaneous

Request: vars.onlySquadLeaderSpawn [enabled: boolean]
Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if players can only spawn on their squad leader

Delay: Instantaneous

Request: vars.allUnlocksUnlocked [enabled: boolean]
Response: OK - for set operation
Response: OK <enabled: boolean> - for get operation

Response: InvalidArguments

Effect: Set if all weapons & gadgets should be available to players

Delay: Instantaneous