



Crysis Wars Dedicated Server v1.5 2009-04-29



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GETTING STARTED

Welcome to the official Crysis Wars Server Documentation. It will guide you through the instructions of how to set up a Crysis Wars Dedicated Server properly. But before continuing with the basic set up please find below the first steps to start with.

Hardware Recommendations

In order to provide a solid base for a Crysis Wars dedicated server it is recommended to use following hardware for one game server. In the case you want to run multiple servers on one machine the hardware should be upgraded accordingly.

CPU: Intel Core2Duo 2.4GHZ or AMD64 Dual Core 2.6GHz

RAM: 1GB Bandwidth: 5Mbps

Crysis Wars Installation

The first step to set up a Crysis Wars server is to install the game on the PC. Follow the instructions given during the installation. You can choose the target place to install the game by selecting the custom installation procedure. This also allows you to exclude several features that might not be interesting for you.

Note: It is not recommended to remove any files (i.e. .pak files) from the Crysis Wars installation afterwards since it might block Crysis Wars from being patched later and also might cause problems when having the internal anti-cheat solution enabled.

Updating the Server

Before following any of the steps further below please make sure the server has been updated to the latest available version which is patch 1.5. The server files can be downloaded from www.mycrysis.com and directly applied to the server (replace the old files with the new ones).

Game Port(s)

Crysis Wars requires the default game port to be open in order to communicate properly with the master server. Following is a list of UDP and TCP ports the game uses in the case of problems with your server not being listed online.

For all traffic between server and client the default 'game' port 64100 is used.

Service Server:	Hostname	Ports Type Local	Remote
Server: hbmaster3 natserver1 natserver2 nat neg hbmaster3 Incoming queries keymaster Stats auth	crysiswars.available.gamespy.com natneg1.gamespy.com natneg2.gamespy.com Game client crysiswars.master.gamespy.com Game client key.gamespy.com crysiswars.auth.pubsvs.gamespy.com	UDP Any UDP game	27900 27901 27901 game* 27900 Any 29910 Any (def:443)
Stats Stats Profile settings/stats	crysiswars.comp.pubsvs.gamespy.com crysiswars.sake.gamespy.com	TCP Any TCP Any	Any (def:80) Any (def:80)

^{*}Default value for 'game' is 64100 (can be adjusted).

For incoming UDP traffic, only port "game" (default 64100) is required to be opened.

BASIC SET UP

This is the basic set up for the Default Crysis Wars Server. The instructions will teach you how to get your server running with the least amount of work for yourself.

Set Up the Server

To set up the basics for the dedicated server, you need to have several files in the root directory of your Crysis Wars installation. Keep in mind that you can only run one server at a time with this set up.

The first step is to double-click on the self-extracting "CrysisWars_Dedicated_Server_Package.exe" file. Be sure to extract the files into the root directory of your Crysis Wars installation.

You can find the self-extracting file on www.mycrysis.com in the Crysis Wars downloads section.

Following files will get extracted that help you setting up the server:

•	server.cfg	(contains all necessary gameplay settings for your game server)
•	autoexec.cfg	(needed for setting up the RCon to administrate the server)
•	levelrotation.xml	(contains multiplayer levels your server cycles through)
•	Startup.bat	(The startup batch file includes all the required information to launch your server automatically with specific settings.)
•	Pb folder	(includes the latest Punkbuster update and PB server config files)
•	CrysisRCon folder	(includes all files for the HTTP/XMLRPC RCon)

Standard Server Settings

To get your server ready please use the standard settings for the "server.cfg" provided further below. It is also recommended give the dedicated server a clearly identifying name.

```
sv servername = "<servername>"
                                 //defines the server name
sv_password = "<password>"
                                 //defines the password required to join the server
sv_gamerules = "<gamemode>"
                                 //PowerStruggle, InstantAction or TeamInstantAction
sv_cheatprotection = 1
                                 //default: 3; can be set to 1 or 2
sv_maxplayers = 32
                                 //defines maximum players on the server
                                 //enables PB; set it to false to disable PB
net_pb_sv_enable true
q_{timelimit} = 30
                                 //default time limit for a map
g_{minteamlimit} = 1
                                 //minimum amount of players required for each team
g_revivetime = 20
g_autoteambalance = 1
                                //balances team automatically; default: 1=on; 0=off
                                 //punishes team killers; default: 1=on; 0=off
q_{tk}punish = 1
g_tk_punish_limit = 10
                                 //number of team kills required to be kicked from
the server
log_verbosity = 3
                                 //do not change that value
log_fileverbosity = 3
                                 //do not change that value
map shore
                                 //loads the map Shore
0r...
                          //loads first level of your level rotation automatically
g_nextlevel
```

Launching the Server

The following is a description of the last steps that are required to get your server ready for launch.

Automatic Map Loading

A server can automatically load a map on start-up if it is defined in the "server.cfg" file. Basically there are two ways to load a level:

1. Level rotation independent

To load a specific level at the start-up of the server, please use following command in the "server.cfg". After the time limit of this level has been reached the map cycle continues with the first level from your level rotation.

```
DX9: map mapname //mapname = name of the level
DX10: map mapname \times //mapname = name of the level; x = DX10
```

2. Level rotation dependent

To load the first level of your level rotation the following command needs to be added to the "server.cfg". After the time limit of this level has been reached the map cycle continues with the second level from your level rotation.

```
DX9: g_nextlevel //loads the first level of the level rotation automatically DX10: g_nextlevel x //loads first level of the level rotation automatically; x = DX10
```

Note: The "x" behind the command will launch everything in DX10 mode. This setting is persistent so no editing of the "*levelrotation.xml*" file is required.

Server Launch

To launch the Crysis Wars Dedicated server with your server settings and level rotation the "startup.bat" needs to be adjusted slightly. This file can be found in your Crysis Wars root directory.

Following is a listing what each command inside the "startup.bat" does:

Command	Explanation
bin32\crysiswarsdedicatedserver	Defines where the dedicatedserver.exe file is
	located. This path should not be changed.
-root "C:\Root\Folder\Of\CrysisWars"	Defines the root folder of your dedicated server.
	This folder needs to include the "server.cfg",
	"autoexec.cfg" and "levelrotation.xml" files.
+exec "server.cfg"	Executes the "server.cfg" when starting up the
	server.

Instructions:

- 1. Right click on the "startup.bat" file Edit
- Replace the "C:\Root\Folder\Of\CrysisWars" with the correct link to your root folder.
- 3. Save the file and close it.
- **4.** Double-click on the "startup.bat" file that will launch the server properly.

Note: Always be sure to launch your server from this "*startup.baf*" file. By launching it from the "CrysisWarsDedicatedServer.exe" file inside Bin32 or Bin64 folder it will completely ignore your server configurations and the level rotation.

ADVANCED SET UP

Following you can find the advanced set up for a Crysis Wars Server. Be sure you finished all steps from the basic set up above before continuing with this one.

Define Level Rotation

Below you can find a description of how to set up the level rotation in several ways. In general it is not recommended to rename "levelrotation.xml" since it is getting loaded automatically with the server start

Standard Level Rotation

To set up a standard level rotation for Crysis Wars, open the "levelrotation.xml" with an .xml aware editor (such as notepad). Then just add/remove the levels you want. The gameplay settings are used from the "server.cfq" file in your Crysis Wars root folder.

For example (to have a rotation that includes all levels):

```
<levelrotation>
 <level name="multiplayer/ps/beach" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/crossroads" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/desolation" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/mesa" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/plantation" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/refinery" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/shore" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/tarmac" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/training" gamerules="PowerStruggle" />
 <level name="multiplayer/ps/frost" gamerules="PowerStruggle" />
 <level name="multiplayer/ia/armada" gamerules="InstantAction" />
 <level name="multiplayer/ia/battleground" gamerules="InstantAction" />
 <level name="multiplayer/ia/coast" gamerules="InstantAction" />
<level name="multiplayer/ia/excavation" gamerules="InstantAction" />
<level name="multiplayer/ia/graveyard" gamerules="InstantAction" />
 <level name="multiplayer/ia/outpost" gamerules="InstantAction" />
 <level name="multiplayer/ia/peak" gamerules="InstantAction" />
 <level name="multiplayer/ia/quarry" gamerules="InstantAction" />
 <level name="multiplayer/ia/steelmill" gamerules="InstantAction" />
 <level name="multiplayer/ia/stranded" gamerules="InstantAction" />
 <level name="multiplayer/ia/terminal" gamerules="InstantAction" />
 <level name="multiplayer/ia/treehouse" gamerules="InstantAction" />
 <level name="multiplayer/ia/savanna" gamerules="InstantAction" />
 <level name="multiplayer/ia/armada" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/battleground" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/coast" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/excavation" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/graveyard" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/outpost" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/peak" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/quarry" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/steelmill" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/stranded" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/terminal" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/treehouse" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/savanna" gamerules="TeamInstantAction" />
 <level name="multiplayer/ia/ruins" gamerules="TeamInstantAction" />
</levelrotation>
```

Specific Level Rotation

You also can set specific gameplay settings for each of the levels in your level rotation. If you set no rules for any of the levels the default gameplay settings from the "server.cfg" are getting used.

For example:

```
<levelRotation randomize="0">
 <level name="multiplayer/ps/shore" gameRules="PowerStruggle">
 <setting setting="g_timelimit 60"/>
 <setting setting="g_fraglimit 0"/>
  <setting setting="g_revivetime 20"/>
</level>
 <level name="multiplayer/ia/armada" gameRules="InstantAction">
  <setting setting="g_timelimit 20"/>
  <setting setting="g_fraglimit 50"/>
</level>
</level>
 <level name="multiplayer/ia/treehouse" gameRules="TeamInstantAction">
 <setting setting="g_timelimit 0"/>
 <setting setting="g_scorelimit 400"/>
</level>
</levelRotation>
```

Note: After having the .xml file edited please be sure to do a final check to avoid editing errors. The easiest way to check this is to load the .xml file in the Internet Explorer since it gives out errors if the format is wrong.

If you set specific gameplay settings to one level only inside the "levelrotation.xml" these settings overwrite the default settings in the "server.cfg" once this level has been loaded by the server.

This means that all upcoming levels in this rotation do run the altered settings and not the default settings in the "server.cfg" file.

Set IP and Port

In order to set a specific IP and Port for your server open up the "server.cfg" that can be found inside the root folder of your Crysis installation.

Add following commands:

```
sv_bind <IP Address>
sv_port <Game Port> (default is 64100)
```

Set Up Automatic Map Downloader

The following instruction will explain how to set up the automatic map downloader for the Crysis Wars server. This will allow players who connect to the server to download the currently running map automatically in the case they do not have it.

1. Package the map in a zip file, so that when extracted into the Levels folder the level is in the correct place.

For example: For Shore (in the location Levels/Multiplayer/PS/Shore), it must be placed in a zip file containing a Multiplayer folder, containing a PS folder, containing the Shore folder itself.

This is because assets in the level (such as solids) are loaded using filenames relative to the Levels folder, so the location of level.pak must be consistent.

- 2. The zip file should be placed on an http server, and the address noted.
- **3.** In the server, the cvar 'net_mapDownloadURL' should be set for each level to the http address of the zip file for that level. This is probably best done in the "levelrotation.xml" file, and looks like following:

```
<levelRotation randomize="0">
  <level name="multiplayer/ps/shore" gameRules="PowerStruggle">
        <setting setting="g_timelimit 60"/>
        <setting setting="net_mapDownloadURL http://www.server.com/filename.zip"/>
        </level>
    </levelRotation>
```

The 'net_mapDownloadURL' cvar is reset on going to the next level in the rotation, so only applies to one level.

Restrict Items and Weapons

Generally, every item type is allowed in the list, with only a couple (Fists, for instance) not allowed. The console variable "i_restrictItems" can be set to a string containing weapon names, equipment names, and vehicle names.

Any item named in this list will not be available in MP, either to buy in PowerStruggle or as placed pickups in IA and TIA. Named vehicles will not be available to buy in PowerStruggle, but if placed in levels by designers will still be present.

Item names should be separated by commas, semicolons or spaces. The order of items is not important, though the entries are case sensitive. The following examples are all equivalent and prevent players from using the flashbang, SCAR or FY71:

```
i_restrictItems flashbang,SCAR,FY71
i_restrictItems flashbang SCAR FY71
i_restrictItems flashbang; SCAR;;;;FY71
```

The following is a list of names to use with this command (should be entered exactly as listed):

Grenades	Explosives
flashbang	Claymore
smokegrenade	AVMine
explosivegrenade	C4
empgrenade	LAW

Weapons	Equipment
SOCOM	Binoculars
SMG	NightVision
Shotgun	Parachute
FY71	LockpickKit
SCAR	RepairKit
DSG1	RadarKit
GaussRifle	
AY69	
FGL40	

Accessoire	es	Prototypes	
SOCOMSile	ncer (also for AY69)	AlienMount (MOAC)	
Silencer	(other weapons)	MOARAttach (MOAR)	
LAM	(for SOCOM, AY69)	Hurricane	
LAMRifle	(other weapons)	TACGun	
Reflex	(reflex sight)		
AssaultScop	e		
SniperScope			
GrenadeLauncher (attachment)			

Vehicles (only applies to b	pought vehicles)		extra ammo once they have
us4wd	(armed ltv)	the weapon/vehicle)	arious vehicle- based coax
us4wu	(armed ltv)	guns / shiten)	allous veriicie- based coax
usgauss4wd	(gauss rifle ltv)	aybullet	(for AY69)
ussupplytruck	(spawn truck)	fybullet	(for FY71)
usboat	(small boat)	shotgunshell	(1011 171)
nkboat	(patrol boat)	smgbullet	
	(gauss patrol boat)	lightbullet	(for socom)
nkgaussboat ushovercraft	(hovercraft)	sniperbullet	(IOI SOCOIII)
nkaaa	(AAA)		
	\ /	scargrenade	
usapc	(ICV)	gaussbullet	
nkapc	(amphibious apc)	fgl40fraggenade	
nktank	(light tank)	fgl40empgrenade	
ustank	(battle tank)	hurricanebullet	
usgausstank	(gauss tank)	claymoreexplosive	
nkhelicopter	(helicopter)	avexplosive	
usvtol	(vtol)	c4explosive	
ustactank	(heavy tac tank)	tank_singularityproject	ile
nktactank	(light tac tank)	towmissile	(for APC)
asvav	(ASV Anti-Vehicle)	dumbaamissile	(for AAA)
		tank125	(for light and battle tanks)
		helicoptermissile	
		tank30	(apc cannon)
		tankaa	(aaa cannon)
		a2ahomingmissile	(for vtol)
		gausstankbullet	
		tacgunprojectile	
		tacprojectile	(tac tank)

Notes:

- Restricting access to the SOCOM means players start unarmed
- In PowerStruggle at least one of the end-game weapons should be left available
- Restrictions aren't communicated to the players (though the buy menu items remain greyed out at all times).
- i_giveitem still works despite the restrictions (though this is dev-mode only)
- Restricting ammo buying only affects extra ammo, though you still get the ammo in the weapon when you buy it / pick it up. Only works in PS, though; ammo pickups are different in IA.

Set Up RCon

Crysis Wars offers multiple ways to administrate a server. The most common one is to login to the ingame RCon system and administrate via the console. Additionally there is also a way to do this from external which does not require Crysis Wars to be started.

InGame RCon

To provide remote control for the server the "autoexec.cfg" needs to be updated. The file can be found in the Crysis Wars root folder. If it does not exist please create the file.

1. Be sure following cvar is added properly:

```
rcon_startserver [port:<rcon_port>] [pass:<password>]
```

2. If hosting only one dedicated server the RCon port does not need to be set and can be removed from the command line.

```
For example: rcon_startserver pass:<password>
```

- 3. Running several game server on the same machine requires each of them to use a different RCon port (e.g. can be similar to the game port of each instance for easier administration).
- **4.** RCon occupies TCP ports, so it is not linked to the game port you can set via *sv_port* in the "*server.cfg*" which occupies UDP ports.
- 5. To stop the service simply type in following command into the server window:

```
rcon_stopserver (to stop the whole service again)
```

External RCon (HTTP/XMLRPC)

This set up is recommended when you want to administrate a server from external. It is not needed to be ingame and administration can be done via the Windows command line application.

To set up RCon for your server the "autoexec.cfg" needs to be updated. The file can be found in the Crysis Wars root folder. Please be sure following cvars are added properly and in the correct order:

http_password password (replace "password" with a password that should be used when logging into the server via the remote control)

http_startserver [port:<port>] (starts the remote control on this server)

Using RCon

Above you have been told how to set up the two provided RCon variations. Below you will find the necessary information on how to use both.

Ingame RCon

To make use of the RCon functionality ingame you would need to follow the steps mentioned below. Once this has been accomplished you are able to administrate the server via ingame console commands.

Start Crysis Wars, open console by pressing \sim or $^{\wedge}$ (key next to 1) and type in following commands:

- 1. con_restricted 0 (to allow console commands) (Can be added to your system.cfg as well)
- 2. rcon_connect [addr:<server address>] [port:<rcon port>] [pass:<password>]
 If no port has been defined the "port:" command can be left out when logging in.

```
For example: rcon_connect addr:<server address> pass:<password>
```

- 3. rcon_command <command> (to use commands like status, sv gamerules, etc.)
- 4. rcon_disconnect (to end remote control on this server)

External HTTP/XMLRPC RCon

To make use of the external RCon functionality you would need to follow the steps mentioned below. Once this has been accomplished you are able to administrate the server via the Windows command line application.

1. Installing Java

Please ensure you have installed the latest Java Runtime Environment (JRE) (http://java.sun.com/javase/downloads/index.jsp) on your system.

Make sure you can run "java" from any directory in the Windows command prompt (this should be done by the JRE installation after you restart Windows).

2. Starting Remote Control

In the Windows command prompt, move to the folder inside the Crysis Wars root folder where the RCon system has been extracted to.

(e.g. "C:\Program Files\Crytek\Crysis Wars\CrysisRcon\").

Once there you need to have following basic command structure to successfully execute a server command:

```
java -jar CrysisRcon.jar <host[:port]> <password> <command [args]>
```

For example:

```
java -jar CrysisRcon.jar 192.168.0.1 password sv_gamerules PowerStruggle java -jar CrysisRcon.jar 192.168.0.1 password map shore
```

ANTI-CHEAT PROTECTION

Crysis Wars offers two anti-cheat solutions to be used on the server. It is recommended to enable both in order to have the highest possible cheat protection for online gaming.

Punkbuster

Installing Punkbuster

With the installation of Crysis Wars on your system Punkbuster gets installed automatically as well. Be sure that you also have the "CrysisWars_Dedicated_Server_Package.exe" extracted into your Crysis Wars root folder as well since it includes a complete updated Punkbuster folder.

You can find the self-extracting file either on www.mycrysis.com in the Crysis Wars downloads section.

Next to the basic Punkbuster binaries it includes the various Punkbuster related .CFG files with the latest anti-cheat settings. They are optimized to work in conjunction with Crytek's internal anti-cheat solution.

Initializing Punkbuster

To enable Punkbuster support for the server, open the "server.cfg" that can be found in your Crysis Wars root folder and make sure following command is set:

net_pb_sv_enable true (false turns the PB protection off)

Updating Punkbuster

Punkbuster usually updates itself. To ensure the latest PB files have been applied to the server you can run the following command in the command line once the server has started:

pb_sv_update

Note: A server restart is required after this command has been executed to allow the server starting again with the up-to-date Punkbuster files

Additionally, if you want to look for the latest PB updates for Crysis Wars manually please check out www.evenbalance.com or download the "PBSetup.exe" file from this and let it updated your Punkbuster automatically.

As game you need to pick "Crysis" and then choose the Crysis Wars root directory to link all updates via the setup to Crysis Wars directly.

PBSetup.exe URL: http://www.evenbalance.com/index.php?page=pbsetup.php

Crysis Internal Anti-Cheat Solution

Introduction

The internal system compares certain files on the client to those on the server, and disconnects client players who have modified these files. The default file checklist should be sufficient to disconnect potential cheaters using a relatively clean installation of Crysis Wars with no modifications.

However, users who modify the game (either as full client-installed mods, or server-side script tweaks) may need to alter the checklist to provide full cheat protection without erroneously disconnecting non-cheating players. This document is a tutorial on how to modify the cheat protection file list for common situations.

Modifying Game Files

Any modification made to a game file which appears in the file check list will result in clients being kicked if they don't also have the modified file. So, in the case of a server-side mod the changed files must be removed from the file check list.

Note that changing the contents of game .pak files is not recommended, as the .pak file itself would have to be excluded from checks. A better method is to copy the files to be modified into a new .pak file and edit them there.

Cheat Protection Setup: Protect.xml

The cheat protection file list is based on the file "Game/Scripts/Network/Protect.xml" (found inside GameData.pak). Again, this file should not be modified directly as this would result in GameData.pak changing. Rather, a copy of this file can be placed outside the .pak (as Game/Protect.xml), and this version will also be loaded by the game.

The rotect>tags mark the start and end of the file, and must be present. Within these tags can be any number of <add> or <exclude> tags.

Override: if set (1), this file will be used instead of the version found in GameData.pak. If 0, the contents of this file will be used in addition to the version in GameData.pak.

<add> allows you to specify files or folders to check, so in the example above the Shaders folder and its contents will be checked to ensure all players have the same version of the file. You can also specify filenames directly; in this case the recurse parameter is not needed.

<exclude> specifies files that should never be checked; this might include logfiles, files that the editor might modify under normal conditions, or simply files that are unlikely to be modified for cheating purposes (music, for example). Excluding these files helps speed up the checking process and will detect cheating players quicker. In the example above all .txt files are ignored, even if they are included by previous steps (so for instance Game/Shaders/test.txt would not be checked). You can also use 'file' or 'folder' here, as in the <add> section.

The 'level' attribute specifies the minimum value of sv_cheatprotection at which each check is done. So you may wish to check script files at level 1, with less important files only being checked at higher values of sv_cheatprotection. All checks performed at level 1 are also performed at higher levels.

Example 1: Server Side Modification

As a simple example, a server admin may wish to alter the purchase prices for some items in Power Struggle to tweak the game balance on their server. These values are contained in GameData.pak, in Game/Scripts/GameRules/PowerStruggleBuying.lua, a file which is checked by the default cheat protection at sv cheatprotection 1 or higher.

Rather than editing the file directly, make a copy and add it to a new pak file ZMod.pak, ensuring that the folder structure remains the same. This file can then be edited. The following Protect.xml file, when placed in the Game folder, will prevent players from being disconnected due to this change:

Note that however since no check is now performed on this file, the system is unable to detect clients who maliciously modify this script file. It is therefore recommended to keep changes and file list exclusions to a minimum.

Example 2: Full Modification (distributed and installed on client's machines)

By default, the current modification folder is checked in addition to the game's own files. So it checks the GameData.pak file and the Game/Scripts/ folder will check the following files if TestMod is loaded:

Game/GameData.pak
Game/Scripts/*.* (within the above GameData.pak file)
Mods/TestMod/Game/GameData.pak (if it exists)
Game/Scripts/*.* (within the mod's GameData.pak file, if it exists)

In most cases it will therefore not be necessary to modify "Protect.xml".

Testing

If a client is disconnected due to a file check failing, a message similar to the following will appear in the server log:

```
[net 11:11:29.596] Client hash mismatch from <user-ip> (profileid=0); file
was game/objects/characters/human/us/nanosuit/nanosuit_helm_mask.mtl
[net 11:11:29.596] Disconnect <user-ip>; profid=0; cause=16; msg='Server
probe hash mismatch (probable cheat)'
```

The server admin can therefore determine whether the disconnect was valid. In the case of an invalid disconnection (for instance, differences in a file which does not affect the game, or is allowed to be different on clients' machines, such as some config files), this file can then be excluded in "*Protect.xml*" to prevent the disconnection from happening again.

SERVER COMMAND LIST

Server Settings

Help	Displays most important commands that are needed to
	start a dedicated server
sv_bandwidth [50000]	(Default: 50000)
	Bit rate on server
sv_bind [0.0.0.0]	Bind server to a specific address.
sv_cheatprotection [3]	(Default: 3)
	Enables Crysis Wars internal cheat protection.
sv_DedicatedCPUPercent [0]	(Default: 0)
	Sets the target CPU usage when running as a dedicated
	server, or disable this feature if it's zero.
	Usage: sv_DedicatedCPUPercent [0100]
sv_DedicatedMaxRate [50]	(Default: 50)
	Sets the maximum update rate when running as a
	dedicated server.
	Usage: sv_DedicatedMaxRate [5500]
sv_gamerules [gamerules]	(Default: Singleplayer)
av ga roport [1]	InstantAction or PowerStruggle
sv_gs_report [1]	(Default: 1)
	Enables Gamespy server reporting. Necessary for NAT negotiation.
sv_lanonly 0	(Default: 0)
SV_Idiloffly 0	Set 1 for a LAN server.
sv map [mapname]	The map the server should load.
sv maxplayers [maxplayers]	(Default: 32)
	Number of max players on the server
sv maxspectators [maxspec]	(Default: 32)
	Number of max spectators on a server
sv_packetrate [30]	(Default: 30)
	Packet rate on server.
sv_password [password]	Server password.
sv port [64100]	(Default: 64100)
	Bind server to a specific port.
sv say	Broadcasting a message to all clients
sv_servername [name]	Name for the server that is used ingame. If no name is
,	set machine name will be used instead.
sv_timeofdayenable [0]	(Default: 0)
	Enables time of day.
sv_timeofdaylength [1]	(Default: 1)
	Sets time of day changing speed.
sv_timeofdaystart [12]	(Default: 12)
	Sets time of day start time.
sv_voting_cooldown [180]	(Default: 180)
	Time in which the player will be able to initiate another
	vote after starting previous one.
sv_voting_ratio [0.51]	(Default: 0.51)
	Fraction of player votes needed for successful vote.
sv_voting_team_ratio [0.61]	(Default: 0.61)
	Fraction of initiator's team member votes needed for
	successful vote (only for PS).
sv_voting_timeout [60]	(Default: 60)
	Voting timeout in seconds.

Gameplay Settings

Gamepiay Settings	
g_c4_limit [1]	(Default: 1)
	Max C4 a player can place (recycled above this value)
g_fgl_limit [2]	(Default: 2)
	Max FGL remote grenades a player can launch
	(recycled above this value)
g_friendlyfireratio [1]	(Default: 1)
	Sets friendly damage ratio. [0] will disable friendly fire.
g_fraglead [1]	(Default: 1)
	Number of frags a player has to be ahead of other
	players once g_fraglimit is reached.
g_fraglimit [0]	(Default: 0 = infinite)
	Number of required frags before a round ends.
g_minplayerlimit [0]	(Default: 0)
	Minimum number of players before game starts. For
	Instant Action only.
g_minteamlimit (1)	(Default:1)
	Minimum number of players in each team to start a
	match. For Power Struggle and TeamInstantAction only.
g_nextlevel	Switches to next level of the map list (levelrotation.xml)
g_MPDeathCam [1]	(Default: 1)
	Shows the killer's location.
g_revivetime [20]	(Default: 20)
	Revive time.
g_roundrestarttime [30]	(Default: 30)
	Time until round starts after minimum people join
g_scorelead [1]	(Default: 1)
	Score a team has to be ahead of other team once
	g_scorelimit is reached. For TeamInstantAction only.
g_spawnprotectiontime [2]	(Default: 2)
	Number of seconds of invulnerability after a respawn.
g_spectate_TeamOnly [0]	(Default: 0)
	If set to 1 (true) it allows to spectate your team mates
	only.
g_suicidedelay [2]	(Default: 2)
	Delay in seconds before executing kill command.
g_tk_punish [1]	(Default: 1)
1 1 1 1 1 1 2 2 2 2	Allows team kill punishment.
g_tk_punish_limit [10]	(Default: 10)
	Number of team kills a user will be banned for.
g_teamlock [2]	(Default: 2)
	Number of players one team needs to have over the
	other to not allow joining this team anymore.
i_restrictitems	List of items to restrict for this MP round.

Common Commands

Ban [playername]	Bans player for [ban_timeout] minutes from server.
ban_remove [playername]	Removes player from ban list.
ban_status	Shows currently banned players.
ban_timeout	Ban timeout in minutes.
Kick [playername]	Kicks player from the server.
Kickid [playerid]	Kicks player via ID from the server.
Status	Shows current status of server.

RCon Commands

rcon_command	Issues a console command to a RCon server.
rcon_connect	To connect to a remote control server.
[addr: <server address="">]</server>	
[port: <rcon port="">]</rcon>	
[pass: <password>]</password>	
rcon_disconnect	To disconnect from a remote control server.
rcon_startserver	To start a remote control server
[port: <port>] [pass:<password>]</password></port>	
rcon_stopserver	To stop a remote control server

Net Settings

Net_pb_sv_enable	Enables Punkbuster for the next map.
net_mapDownloadURL	URL for clients to download the current map.