

Insurgency: Sandstorm Server Admin Guide

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Installation

Prerequisites

Before installation make sure you have installed the required prerequisites on your server.

Windows

- Visual C++ 2015 Redistributable:
<https://www.microsoft.com/en-us/download/details.aspx?id=53587>
- Visual C++ 2017 Redistributable: https://aka.ms/vs/15/release/vc_redist.x64.exe

SteamCMD

Like other games published on Steam, Insurgency: Sandstorm's server files are published through a command-line tool known as "SteamCMD". This GUI-less Steam client allows you to install and update the server's files fairly easily.

You can download SteamCMD from the following links:

- **Windows:** <https://steamcdn-a.akamaihd.net/client/installer/steamcmd.zip>

- **Linux:** https://steamcdn-a.akamaihd.net/client/installer/steamcmd_linux.tar.gz

You can read more about SteamCMD and how to use it here:

<https://developer.valvesoftware.com/wiki/SteamCMD>.

Most commands through SteamCMD require knowledge of the “app ID”, for Insurgency: Sandstorm its server files use the app ID **581330**.

Launching

Once installed, you may launch the server from the “InsurgencyServer” executable located in the root directory of where you installed the server. The command line should include the starting map, the scenario and any other launch parameters. For example:

Windows

```
InsurgencyServer.exe  
Oilfield?Scenario=Scenario_Oilfield_Push_Security?MaxPlayers=28  
-Port=27102 -QueryPort=27131 -log -hostname="My Server"
```

Linux

```
Insurgency/Binaries/Linux/InsurgencyServer-Linux-Shipping  
Oilfield?Scenario=Scenario_Oilfield_Push_Security?MaxPlayers=28  
-Port=27102 -QueryPort=27131 -log -hostname="My Server"
```

In this example, the server will be started on Refinery (Oilfield) Push Security, hosted on port 27102 with a maximum of 28 players.

Travel Parameters

Travel parameters are placed at the end of the map name in the command line, following it with a question mark (?) and then the setting variable and its value. In the above example “port”, “queryport” and “MaxPlayers” are travel parameters.

Parameter	Description
password	Sets a password for the server.
MaxPlayers	Maximum number of players that can join the server. On coop servers, this is only the number of human players.

Command Line Arguments

Argument	Description
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-log	Enables log window.
-hostname="My Server"	Set the name of the server as it appears on the server browser (replacing My Server with the name of your choice).
-EnableCheats	Enable cheats for testing.
-Port=xxxx	The UDP port that game connections are made to (replace xxxx with port number).
-QueryPort=xxxx	The port that Steam runs server queries on (replace xxxx with port number).

Configuration

Most server configuration is performed through INI files and launch parameters. INI files can be edited with any plain text editor such as Notepad, Notepad++, Sublime Text and VSCode.

The location of the configuration files are in the following directories (relative to the installation directory):

- **Windows:** Insurgency\Saved\Config\WindowsServer
- **Linux:** Insurgency/Saved/Config/LinuxServer

Admin List

The game has a built-in admin menu which provides basic functionality such as kicking, banning and changing the level. In order to add admins, you will need to know their 64-bit Steam ID (aka steamID64). You can find this by using an online converter such as [STEAMID I/O](#).

The list is contained inside **Insurgency/Config/Server/Admins.txt**. If this file does not exist, create it. You can also override the file by specifying a command line switch, for example `-AdminList=OtherAdminList` would make the server read from OtherAdminList.txt instead.

For each server admin you want to add, put each Steam ID on a new line. You can do this for as many admins as you would like to add. Adding new admins will require a server restart or level change for any changes to be reflected in-game. When a player with admin is connected to the server, they should be able to open the admin menu, it is bound to the Keypad Subtract button by default and can be re-bound in the key bindings menu.

Remote Access (Rcon)

Rcon can be enabled to provide remote access to the server for administrative tasks that don't require you to join the server. This is implemented using the [Source Engine Rcon Protocol](#) which has clients available for it such as [mcrcon](#).

Enabling Access

Rcon can be enabled either through modifying **Game.ini** or through the server's command line. To enable it via the command line you can provide the arguments `-Rcon -RconPassword=password -RconListenPort=27015` replacing the password and port with your preference.

Through Game.ini you can add the following options:

```
[Rcon]
bEnabled=True
Password=password
ListenPort=27015
```

The following additional config variables are also available:

Setting	Default	Description
bUseBroadcastAddress	True	If enabled, then the rcon socket will listen on all available network devices.
ListenAddressOverride	0.0.0.0	If bUseBroadcastAddress is False, this is the network IP the rcon socket is bound to.
bAllowConsoleCommands	True	When enabled, any unknown rcon commands will be interpreted as console commands.
MaxPasswordAttempts	3	The maximum number of failed authentication attempts before the IP address is temporarily banned.
IncorrectPasswordBanTime	30	The amount of time (in minutes) a client is banned from attempting to connect to rcon if they've reached their maximum number of

		attempts.
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Commands

You can get a list of commands at any time by typing “help” into the console. This will show a summary of all available commands, their usage as well as a description of the command’s function.

The table below shows the available commands, mandatory parameters are shown surrounded by “<” and “>”, while optional parameters are surrounded with “[“ and “]”.

Command	Parameters	Function
help		Displays a list of commands.
listplayers		Lists players currently connected to the server.
kick	<id/netid/name> [reason]	Kicks a player from the server.
ban	<id/netid/name> [duration in minutes] [reason]	Bans a player from the server.
permban	<id/netid/name> [reason]	Permanently bans a player from the server.
unban	<netid>	Lifts a ban for a user.
listbans		Shows the ban list for the server.
say	<message>	Shows a message to all players in the chat box.
restartround	[0 = no team switch, 1 = swap teams]	Restarts the current round.
maps	[level filter]	Lists available maps.
scenarios	[level filter]	Lists available scenarios.
travelscenario	<scenario>	Change level to given scenario.
travel	<travel url>	Transitions the server to a different level.
gamemodeproperty	<property> [new value]	Gets or sets a gamemode property for the length of the

		scenario.
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By default, any unknown commands will be executed as console commands.

Map Cycle

By default, a server will cycle through all Versus (PVP) scenarios available.

The server can be configured with a mapcycle file which contains a list of scenarios, separated by new lines. By default, this file must be placed in **Insurgency/Config/Server/MapCycle.txt**. This can be defined on the command line using the -MapCycle parameter. So if you wanted it to read MyOtherMapCycle.txt you would specify -MapCycle=MyOtherMapCycle.

For example, a Skirmish only server's MapCycle.txt should look like the following:

```
Scenario_Town_Skirmish
Scenario_Oilfield_Skirmish
Scenario_Farmhouse_Skirmish
```

Scenario List

Farmhouse	
Scenario Name	Description
Scenario_Farmhouse_Checkpoint_Insurgents	Checkpoint Insurgents
Scenario_Farmhouse_Checkpoint_Security	Checkpoint Security
Scenario_Farmhouse_Firefight_East	Firefight East
Scenario_Farmhouse_Firefight_West	Firefight West
Scenario_Farmhouse_Push_Insurgents	Push Insurgents
Scenario_Farmhouse_Push_Security	Push Security
Scenario_Farmhouse_Skirmish	Skirmish
Hideout (Town)	
Scenario Name	Description
Scenario_Town_Checkpoint_Insurgents	Checkpoint Insurgents
Scenario_Town_Checkpoint_Security	Checkpoint Security
Scenario_Town_Firefight_East	Firefight East

Scenario_Town_Firefight_West	Firefight West
Scenario_Town_Push_Insurgents	Push Insurgents
Scenario_Town_Push_Security	Push Security
Scenario_Town_Skirmish	Skirmish
Refinery (Oilfield)	
Scenario Name	Description
Scenario_Oilfield_Checkpoint_Insurgents	Checkpoint Insurgents
Scenario_Oilfield_Checkpoint_Security	Checkpoint Security
Scenario_Oilfield_Firefight_West	Firefight West
Scenario_Oilfield_Push_Insurgents	Push Insurgents
Scenario_Oilfield_Push_Security	Push Security
Scenario_Oilfield_Skirmish	Skirmish

For Checkpoint scenarios “Insurgents” and “Security” refer to the faction you play as. For Push, the faction names represent the team you attack as. Firefight for most maps will contain a West and an East layout.

General Configuration

A bunch of general gameplay options can be added to **Game.ini**. Below is a table that lists the section they need to be under (find or add them to the file) as well as the options available under that section.

[/Script/Insurgency.INSGameMode]		
Variable	Default	Description
bKillFeed	False	Is the kill feed enabled?
bKillFeedSpectator	True	Is the kill feed enabled for dedicated spectators and replays?
bKillerInfo	True	Show information about a death (killer, weapon) to the victim?
bKillerInfoRevealDistance	False	Reveal distance of kills?
TeamKillLimit	3	Limit for the number of team

		kills one player can perform before being kicked.
TeamKillGrace	0.2	Grace timer between team killing incidents.
TeamKillReduceTime	90	How long until a player's TK count reduces by 1.
bDeadSay	False	Can alive players see messages from the dead?
bDeadSayTeam	True	Can alive players see messages from dead teammates using team-only chat?
bVoiceAllowDeadChat	False	Can alive players hear voice chat from dead players?
bVoiceEnemyHearsLocal	True	Can proximity voice chat be heard by enemies?
[/Script/Insurgency.INSMultiplayerMode]		
Variable	Default	Description
GameStartingIntermissionTime	5	The additional time to wait for additional players during the starting intermission.
WinTime	5	How long players are frozen before transitioning to the round intermission screen.
PostRoundTime	15	How long is spent on the intermission screen.
PostGameTime	15	How much time is spent between last post round and game over
bAutoAssignTeams	True	Should teams be assigned on connect?
bAllowFriendlyFire	True	Enables friendly fire.
FriendlyFireModifier	0.2	Damage modifier for friendly fire.
FriendlyFireReflect	0	Damage modifier for friendly fire that is mirrored back at the attacker.

bAutoBalanceTeams	True	Enables auto team balancing.
AutoBalanceDelay	10	How long to wait after detecting unbalanced teams.
bMapVoting	True	Enabled map voting at the end of each game.
bUseMapCycle	True	Enables the use of the map cycle. If disabled, the current map loops indefinitely.
bVoiceIntermissionAllowAll	True	Allow both teams to talk to each other between rounds.
IdleLimit	150	How long a player can be idle for before being kicked.
IdleLimitLowReinforcements	90	How long a player can idle for when there are low reinforcements.
IdleCheckFrequency	30	How frequently to check for idle players.

For example, enable the kill feed, show kill distance and disable friendly fire you would enter the following in your **Game.ini**:

```
[/Script/Insurgency.INSGameMode]
bKillFeed=True
bKillerInfoRevealDistance=True
```

```
[/Script/Insurgency.INSMultiplayerMode]
bAllowFriendlyFire=False
```

Gamemode Configuration

Gamemode options can be defined through **Game.ini**, with each section corresponding to a given gamemode. The INI sections are as follows:

- **Push:** [/Script/Insurgency.INSPushGameMode]
- **Skirmish:** [/Script/Insurgency.INSSkirmishGameMode]
- **Firefight:** [/Script/Insurgency.INSFirefightGameMode]
- **Checkpoint:** [/Script/Insurgency.INSCheckpointGameMode]

Any of the below settings under the general sections can be applied globally by putting them in the appropriate INI section.

General ([/Script/Insurgency.INSGameMode])		
Variable	Default	Description
ObjectiveCaptureTime	Varies	How long it takes to capture territorial objectives.
ObjectiveResetTime	-1	How long objective progress decays with no one on the point. Negative value disables.
ObjectiveSpeedup	0.25	Additional capture speed-up for each player on the point.
ObjectiveMaxSpeedupPlayers	4	Maximum players taken into account for capture speed-up.
General ([/Script/Insurgency.INSMultiplayerMode])		
Variable	Default	Description
MinimumPlayers	1	Minimum players required on each team to start the game.
RoundLimit	Varies	Maximum number of rounds to play.
WinLimit	Varies	Number of rounds required for game victory.
GameTimeLimit	-1	Maximum duration a game can last. Negative value disables.
PreRoundTime	10	Amount of “freeze time” at the start of a round.
OverTime	60	Amount of overtime given when there’s an objective being contested after the round timer expires.
TeamSwitchTime	10	Minimum additional time spent between team switches.
SwitchTeamsEveryRound	Varies	How often to switch teams. 0 = never, 1 = every round, 2 = every other round, etc.

bAllowPlayerTeamSelect	True	Allow players to switch to the other team?
bBots	False	Enable bots?
BotQuota	Varies	Bot quota to fill.
InitialSupply	15	Amount of starting supply points.
MaximumSupply	15	Maximum supply that can be earned.
bSupplyGainEnabled	False	Enable supply gain throughout the round?
bAwardSupplyInstantly	False	Should supply gain be awarded instantly?
SupplyGainFrequency	150	Score threshold for earning supply.

Push [/Script/Insurgency.INSPushGameMode]

Variable	Default	Description
RoundTimeExtension	300	How long a round is extended for each successful capture.
AttackerWavesPerObjective	5	Number of waves attackers get per-objective.
AttackerWaveDPR	0.25	Percentage of attacker team that has to be dead to trigger a reinforcement wave.
AttackerWaveTimer	20	Duration of attacker reinforcement wave timer.
DefenderWavesPerObjective	5	Number of waves attackers get per-objective.
DefenderWaveDPR	0.25	Percentage of defending team that has to be dead to trigger a reinforcement wave.
DefenderWaveTimer	35	Duration of defender reinforcement wave timer.
LastStandSetupDelay	10	Delay for the last defender

		spawn zone to be disabled.
AdvanceAttackerSpawnsDelay	30	Delay in advancing the attacker spawns.
Skirmish [/Script/Insurgency.INSSkirmishGameMode]		
Variable	Default	Description
DefaultReinforcementWaves	5	Starting reinforcement waves for each team.
CaptureBonusWaves	1	Number of bonus waves to get when an objective is taken while the team cache is still intact.
Firefight [/Script/Insurgency.INSFirefightGameMode]		
Variable	Default	Description
General Coop ([/Script/Insurgency.INSCoopMode])		
Variable	Default	Description
bUseVehicleInsertion	True	Use vehicle insertion sequences where possible.
FriendlyBotQuota	4	Friendly bots for coop.
MinimumEnemies	6	Minimum number of enemy bots.
MaximumEnemies	12	Maximum number of enemy bots.
Checkpoint [/Script/Insurgency.INSCheckpointGameMode]		
Variable	Default	Description
DefendTimer	90	Time to defend against counter attack with small player team.
DefendTimerFinal	180	Extend duration of counter-attack by this on the final point.
RetreatTimer	10	Time to force bots to retreat after a counter-attack.

RespawnDPR	0.1	“Dead player ratio” that must be reached before respawning the bot team.
RespawnDelay	20	Bot respawn delay.
PostCaptureRushTimer	30	Time bots will rush the cache after destruction.
CounterAttackRespawnDPR	0.2	“Dead player ratio” that must be reached before respawning the bot team during a counter-attack.
CounterAttackRespawnDelay	20	Bot respawn delay during counter-attack.
ObjectiveTotalEnemyRespawnMultiplierMin	1	Multiplier of bots to respawn with minimum player count.
ObjectiveTotalEnemyRespawnMultiplierMax	1	Multiplier of bots to respawn with maximum player count.
FinalCacheBotQuotaMultiplier	1.5	Increase in bot quota for final objective if it's a cache.