SimpleGangs

Owner's Manual

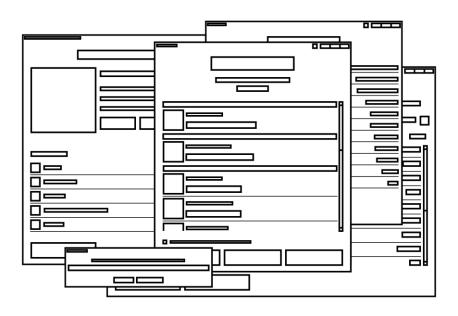


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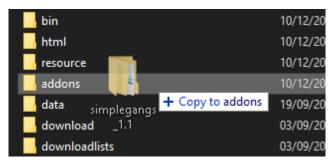
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1. Installation

SimpleGangs Installs to your server much like any other addon.

Move the entire folder titled 'simplegangs_1.1' included with your download into the *garrysmod/addons/* directory on your server. On the next boot of your server, SimpleGangs will be active.



While the addon does not require additional installation steps or configuration, it is advised you review the default settings and make any changes you feel best suit your needs. A detailed explanation of this can be found in *Section 2. Configuration*.

If you plan to use SimpleGangs in conjunction with a MySQL Database, you should first read the instructions under *Section 5. MySQL and the Database*.

2. Configuration

All configuration to SimpleGangs is done through 1 Lua File. This section details each part of the file, and how to edit it to your requirements. Knowledge of the Lua programming language is not required.



To begin, navigate to the following directory using your Server's file browser:

garrysmod/addons/simplegangs_1.1/lua/simplegangs_config/.

Inside you should see 2 Lua Files, *config.lua* and *mysql_config.lua*. Open the first using your favourite text editor.

Below explains what each section does, and how to edit it.

Global User Interface Settings

```
-- GLOBAL UI SETTINGS

SimpleGangs.UITitle = "Organisations"
SimpleGangs.UIGroupName = "Organisation"
SimpleGangs.UIBackgroundColor = Color(20, 20, 20, 250)
```

UlTitle: This refers to the title of the Main Menu. While you can change this to whatever you like, it is recommended you use a plural version of the Group Name (below). In this case, we refer to groups as Organisations, and use that as the title. This is a string, so make sure it is wrapped in quotation marks, as above.

UlGroupName: This refers to what Groups are called within the game. The default is "Gang", but can be changed to anything you choose, like above where we use "Organisation" or "Clan". It is best to capitalise this word. This is also a string so make sure it is wrapped in quotation marks like in the example provided.

UlBackgroundColor: This is simply the color that the User Interface will use as its background. It is given as a Color object, so you MUST use the format Color(R, G, B, A) where R is the Red value, G is the Green value, B is the Blue value and A is the transparency. While you can change this color, it is not advised, as the default works quite nicely.



Main Menu Settings

```
-- MAIN MENU SETTINGS

SimpleGangs.EnableCommand = true
SimpleGangs.EnableKey = true
SimpleGangs.MenuCommand = "/orgs"
SimpleGangs.MenuKey = KEY_F8
```

EnableCommand: Enables or disables the use of the chat command specified in *MenuCommand* to bring up the Main Menu. Note, if you set both this and *EnableKey* to *false*, the main menu will have no means of invocation, making it inaccessible to the user. This is a Boolean so set it to either *true* or *false* without quotations like seen above.

EnableKey: Enables or disables the use of the keyboard button specified in *MenuKey* to bring up the Main Menu. Note, if you set both this and *EnableCommand* to *false*, the main menu will have no means of invocation, making it inaccessible to the user. This is a Boolean so set it to either *true* or *false* without quotations like seen above.

MenuCommand: The chat command to be used by users to invoke the Main Menu. This will have no effect if *EnableCommand* is set to *false*. You can use whatever prefix you like. In this case we use /. This is a string, so must be wrapped in quotations like as seen above.

MenuKey: The keyboard key to be pressed by users to invoke the Main Menu. This will have no effect if *EnableKey* is set to *false*. This is an enum, so you can use any key you like, but you MUST use the correct format. A list of keys can be found at: https://wiki.facepunch.com/gmod/Enums/KEY

Administration Console Settings

```
-- ADMIN MENU SETTINGS

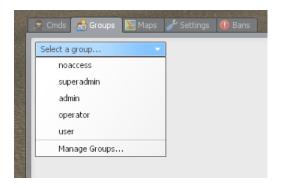
SimpleGangs.EnableAdmin = true
SimpleGangs.AdminCommand = "/admin"
SimpleGangs.AdminRanks = {"admin", "superadmin"}
```

EnableAdmin: Enables or disables the Administration Console.

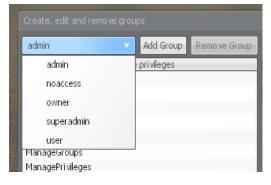
Disabling this will provide no way of moderating Groups. This is a Boolean so set it to either *true* or *false* without quotations like seen above.

AdminCommand: The chat command to be used by admins to invoke the Administration Console. This will have no effect if *EnableAdmin* is set to *false*. You can use whatever prefix you like. In this case we use /. This is a string, so must be wrapped in quotations like as seen above.

AdminRanks: This is a list of user groups which have access to the Administration Console. This works with most common admin mods, like FAdmin and ULX. If you are the server owner, you should know what your groups are called, but to make sure you are likely able to find them within your Admin Mod's Menu (See Below). This is a Table, so make sure to format it like above with the whole Table encased in {Curly Brackets}, each rank wrapped in "Quotation Marks", and delimited by commas. You may specify as many or as little ranks / user groups as you like.



Example showing User Groups in ULX Admin Mod



Example showing User Groups in FAdmin Admin Mod

Leaderboard Settings

```
-- LEADERBOARD SETTINGS

SimpleGangs.EnableLeaderboard = true
SimpleGangs.ShowWalletLeaderboard = true
SimpleGangs.ShowOrgLeaderboard = true
SimpleGangs.LeaderboardCommand = "/leaderboard"
```

- EnableLeaderboard: Enables or disables the Leaderboard. This is a Boolean so set it to either *true* or *false* without quotations like seen above.
- ShowWalletLeaderboard: Enables or disables the DarkRP Wallet Tab in the Leaderboard. This will have no effect if *EnableLeaderboard* is set to *false* or if your server is not running DarkRP or a DarkRP derived gamemode. Note, if you set both this and *ShowOrgLeaderboard* to *false*, the Leaderboard will have no enabled tabs, and display an empty dialogue. This is a Boolean so set it to either true or false without quotations like seen above.
- ShowOrgLeaderboard: Enables or disables the Group Bank Tab in the Leaderboard. This will have no effect if *EnableLeaderboard* is set to *false* or if your server is not running DarkRP or a DarkRP derived gamemode or if SimpleGangs Bank is disabled. Note, if you set both this and *ShowWalletLeaderboard* to *false*, the Leaderboard will have no enabled tabs, and display an empty dialogue. This is a Boolean so set it to either true or false without quotations like seen above.
- LeaderboardCommand: The chat command to be used by users to invoke the Leaderboard. This will have no effect if EnableLeaderboard is set to false. You can use whatever prefix you like. In this case we use /. This is a string, so must be wrapped in quotations like as seen above.

Bank Settings

```
-- BANK SETTINGS

SimpleGangs.EnableBank = true
SimpleGangs.BankCurrency = "pound"
```

EnableBank: Enables or disables the entire SimpleGangs Bank System. When disabled, users are no longer given the option to withdraw and deposit cash, and a member count is displayed on the main menu instead of bank balance. This is a Boolean so set it to either *true* or *false* without quotations like seen above.

BankCurrency: This is purely a cosmetic setting, and only changes which currency symbol is used in the User Interface.

SimpleGangs currently supports 5 currencies: Dollars, Pounds, Euros, Yen and Rubles. While this will mostly be ignored if EnableBank is false, it is worth noting it is also used in the DarkRP wallet tab in the Leaderboard, if Enabled. Currency should be supplied in the following formats: "dollar" or "pound" or "euro" or "yen" or "ruble". This is a string, so must be wrapped in quotations like as seen above.

Chat Settings

```
-- CHAT SETTINGS

SimpleGangs.EnableOrgChat = true

SimpleGangs.ReplaceTeamChat = true

SimpleGangs.OrgChatCommand = "/orgchat"
```

EnableOrgChat: Enables or disables the ability to privately chat as a group with members of your gang. This is a Boolean so set it to either *true* or *false* without quotations like seen above.

ReplaceTeamChat: When set to *true*, the default team talk action will be overridden, and replaced with gang chat. When DarkRP is installed, the group chat system is replaced. Once enabled, all messages sent through team talk (default button is 'u') will be routed to Gang Chat. This will have no effect if *EnableOrgChat* is set to *false*. This is a Boolean so set it to either true or false without quotations like seen above.

OrgChatCommand: The chat command followed by a message to be used for Gang Chat. This will have no effect if EnableOrgChat is set to false. You can use whatever prefix you like. In this case we use /. This is a string, so must be wrapped in quotations like as seen above.

Friendly Fire Settings

```
-- FRIENDLY-FIRE SETTINGS

SimpleGangs.DisableFriendlyFire = true
SimpleGangs.PlayFriendlyHitSound = true
```

DisableFriendlyFire: When this is set to *true*, dealing damage to members of your own gang will yield no result. This makes gangs act more like teams, where friendly fire is disabled. Set this to *false* for damage to be enabled for gang members. This is a Boolean so set it to either true or false without quotations like seen above.

PlayFriendlyHitSound: When set to *true*, 1 of 10 male citizen hurt sounds will be emitted from the victim upon friendly fire from someone in their own gang. This works independently from *DisableFriendlyFire*, so the sound will play regardless of if friendly fire is disabled or not. This is a Boolean so set it to either true or false without quotations like seen above.

HUD Settings

```
-- HUD SETTINGS

SimpleGangs.HUDBackgroundColor = Color(10, 10, 10, 220)

SimpleGangs.HUDAnchor = "topleft"

SimpleGangs.HUDPosX = 10

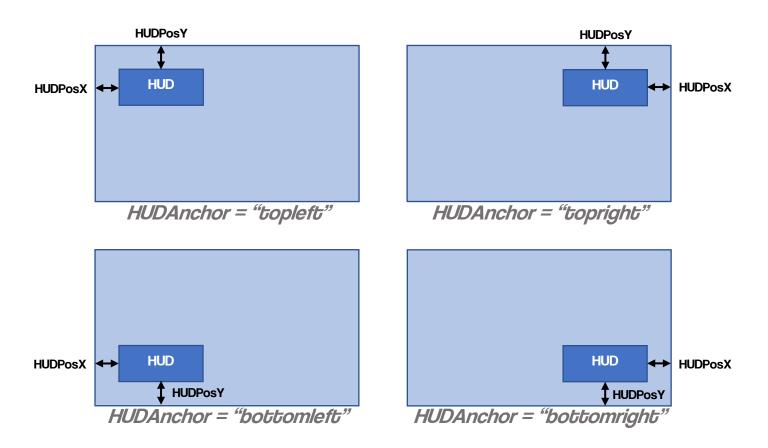
SimpleGangs.HUDPosY = 10
```

HUDBackgroundColor: This is simply the color that the Gang HUD will use as its background if the user chooses to enable it in the main menu. It is given as a Color object, so you MUST use the format *Color(R, G, B, A)* where R is the Red value, G is the Green value, B is the Blue value and A is the transparency. While you can change this color, it is not advised, as the default works quite nicely.

HUDAnchor: This is the anchor point for the Gang HUD relative to the screen. This is explained in more detail below. Available Anchor points are: "topleft", "topright", "bottomleft" and "bottomright". You MUST supply this value with one of the 4 above in the correct format. This is a string, so must be wrapped in quotations like as seen above.

HUDPosX: The number of pixels away from the supplied anchor point horizontally. This is an integer, so must not contain a decimal point or quotations, like as seen above.

HUDPosY: The number of pixels away from the supplied anchor point vertically. This is an integer, so must not contain a decimal point or quotations, like as seen above.



Economy Settings

-- ECONOMY SETTINGS

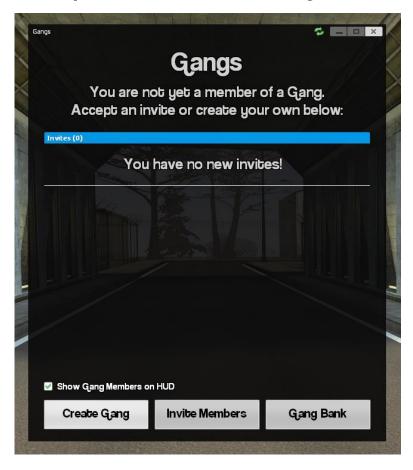
SimpleGangs.CreateOrgCost = 100

CreateOrgCost: The cost to create a Gang. Set this to 0 for gang creation to be free. This will have no effect if your server is not running DarkRP or a DarkRP derived gamemode. This is an integer, so must not contain a decimal point or quotations, like as seen above.

3. User Guide

SimpleGangs has been designed from the beginning to be user friendly. As a result, the majority of features are self-explanatory, however in this section, they will be described in detail.

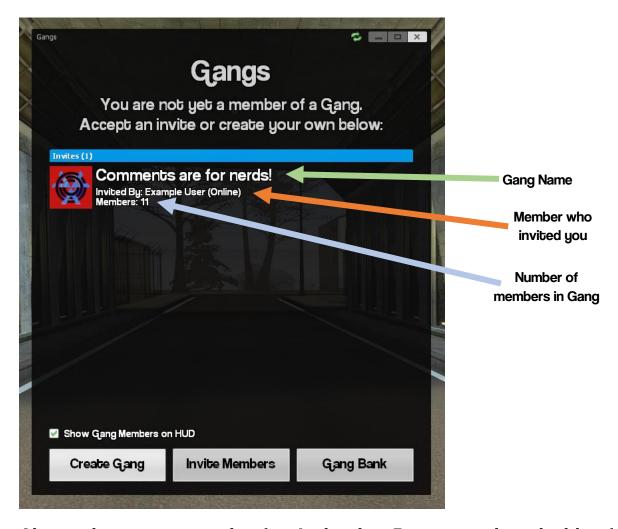
The most common tool you will use to interact with your Gang is the Main Menu. It can be opened with the chat command and / or keyboard button specified in *Section 2. Configuration*.



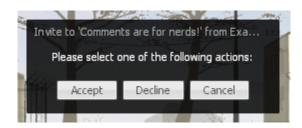
Initially, you should see a window similar to the one below when you are not in a Gang, for example, on a user's first join.

Like the dialogue suggests, you have two choices to get started: Create your own or accept an invite to an existing Gang. Invitations will appear under the Invites section.

Accepting or declining an Invitation



Above shows an example of an Invitation. Press anywhere inside of it to reveal the options menu, as seen below:



Click 'Accept' to join the Gang. All online Gang members will be notified. Click 'Decline' to ignore the Invite and remove it from your list. The user who invited you will be notified that you have declined, if online. Pressing 'Cancel' will take no action and return you to the Main Menu.

Note, accepting an invitation while already being a member of another Gang will make you leave your current Gang and join the new one.

Creating a new Gang

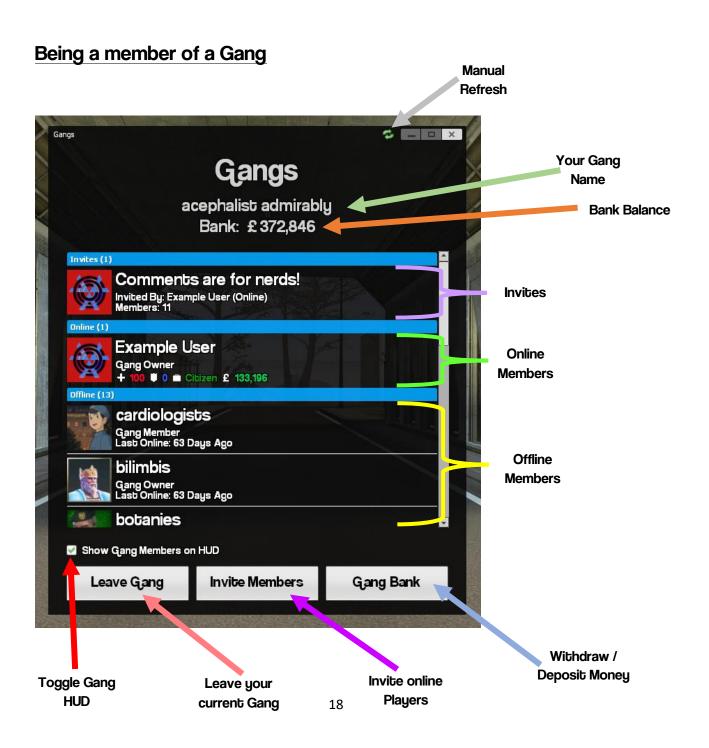
To create a new Gang, ensure that you are not already in one and leave if necessary. Press the button in the lower left corner titled 'Create Gang' as seen above, to open the dialogue below:



In the field presented, enter a Gang name that is less than 26 characters long, and press 'Create'. If a Gang with the same name already exists, you will be prompted to pick a new one.

If you chose to set a creation cost and are running DarkRP, the appropriate funds will be taken. If you do not have the required cash, the Gang will not be created.

To return to the Main Menu, press 'Cancel'.



Ranks

A Gang has 2 ways of ranking its users: *Owners* and *Members*. When you create a Gang, you are automatically made an owner. Owners have more control over the Gang than members, as shown below:

Owners can:

- Promote Members to Owners
- Kick Members and Owners
- Invite new Members
- Withdraw and Deposit cash from the Gang Bank
- View Members Steam profiles

Where Members can only:

- Withdraw and Deposit cash from the Gang Bank
- View Members Steam profiles

Managing Gang members

To view actions for a user, select a Gang member from the list of online or offline members. If you are ranked as only a member, selecting a user will simply open their Steam Profile (Shown Below), as members cannot manage users in the same way owners can. If you are an owner, the following dialogue will be displayed:



Press 'Promote to Co-Owner' to set the user's rank to Owner. Note, owners cannot demote other owners, so you must ask an admin to do this if required. The user will be notified if they are online.

Press 'Kick' to remove the user from the Gang. All online gang members will be notified, as well as the user if they are online.

Press 'Show Profile' to open the user's Steam page, like as seen to the right. This window will also open when a user is selected by a non-owner, like described above.



Pressing 'Cancel' will

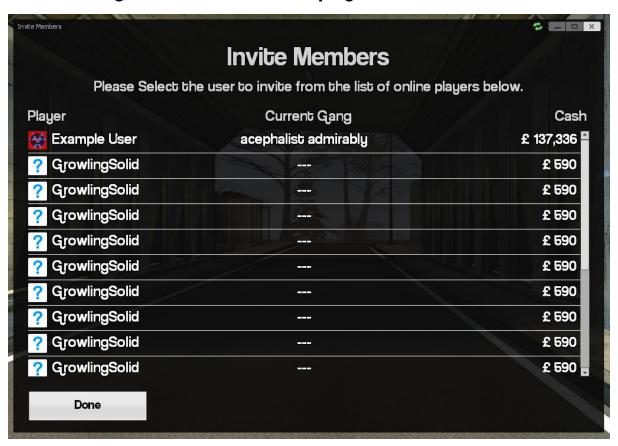
take no action and return you to the Main Menu.

Inviting new members

As explained earlier, only Gang owners can invite new members. If you are not a Gang owner, the 'Invite Members' button will be greyed out.

To get started with sending invites, make sure you are a Gang owner and press the 'Invite Members' button at the bottom of the Main Menu, which can be seen in the screenshot above.

The following window should be displayed:



In the above screenshot, bots are used to populate the player list, however under normal circumstances these would be real players.

All connected players are displayed in their own row, showing their avatar, in-game name, current Gang (If applicable) and cash. You can send invites to players who are already in a gang or players who are not (Denoted by 3 dashes in the 'Current Gang' field like as seen above).

Press the green refresh button in the top right to update listings.

Click anywhere in the player's row to send them an invitation to your Gang. If they are online, they will receive a notification and the invite will be visible in their Main Menu like seen at the beginning of *Section 3*.

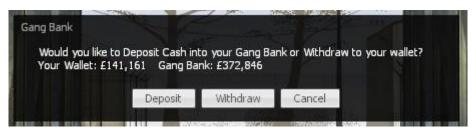
Pressing Done will close the invite window and return you to the Main Menu.

Using the Gang Bank

The Gang Bank will only be available if you have enabled it in *Section 2. Configuration*, and your server is running DarkRP or a DarkRP derived gamemode. When enabled, the 'Gang Bank' button will appear in the lower right corner of the Main Menu.

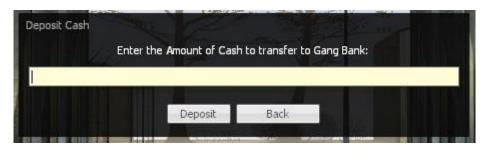
It acts like a shared bank account with all of the members of your Gang. Both Members and Owners can deposit and withdraw any amount of cash from it at any time. The current balance can be found at the top of the Main Menu, like shown in one of the above screenshots.

To start using the Gang Bank, press the 'Gang Bank' button in the Main Menu. The following dialogue should be displayed:



This window displays your current DarkRP wallet value as well as your Gang Bank balance and gives you the option to Deposit cash from your wallet into the bank or withdraw cash from the bank and into your wallet.

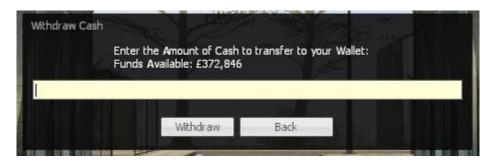
• Pressing 'Deposit' will open this window:



In the provided field, you must enter the amount of money to transfer to the bank. Ensure that this is less than or equal to your wallet value, or you will not be able to afford the transaction. Make sure to format the number correctly, e.g. No currency symbols, commas, or spaces, then Press 'Deposit' to transfer the money. You will then be returned to the Main Menu.

Press 'Back' to return to the previous screen.

• Pressing 'Withdraw' will open this window:



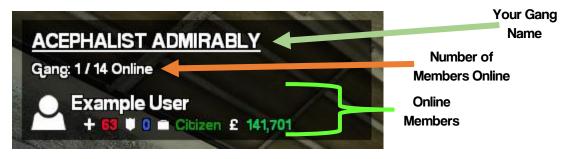
The window shows your current bank balance, so you know how much you have available for withdrawal. In the provided field, you must enter the amount of money to transfer to your wallet. Ensure that this is less than or equal to your bank balance, or your Gang will not be able to afford the transaction. Make sure to format the number correctly, e.g. No currency symbols, commas, or spaces, then Press 'Withdraw' to transfer the money. You will then be returned to the Main Menu.

Press 'Back' to return to the previous screen.

• Pressing 'Cancel' will close the Gang Bank window and return you to the Main Menu.

Gang HUD

In the lower left corner of the Main Menu, there is a checkbox with the label 'Show Gang Members on HUD'. When this box is checked and you are a member of a Gang, A small window with the configuration you specified in *Section 2. Configuration* will appear on your screen like below:



This HUD Window will expand and collapse as members come online and go offline. The Gang name is displayed as the title of the window, followed by how many members are online and the number of total members.

Below, a list of online players will be displayed along with their Health, Shield and if DarkRP is enabled, their Job and Cash. This helps you quickly get information about your Gang members without opening the Main Menu.

If you chose to enable the HUD, SimpleGangs will remember your choice and automatically show it every time you reconnect.

To disable the HUD, simply uncheck the checkbox in the Main Menu.

Leaving your Gang

If you no longer wish to be a member of your gang, press the 'Leave Gang' button in the lower left corner of the Main Menu.

The following dialogue will be displayed:



Press 'Yes' to confirm that you want to leave. All online members of your Gang will be notified that you have left. You will be returned to the Main Menu, and no longer part of a Gang.

Press 'No' to cancel and return to the Main Menu while continuing to be a member of the Gang.

Like the dialogue says, once you leave you must be re-invited in order to join back. After joining back, your rank will default back to member, so you must be promoted by an owner to retain owner status.

Using Gang Chat

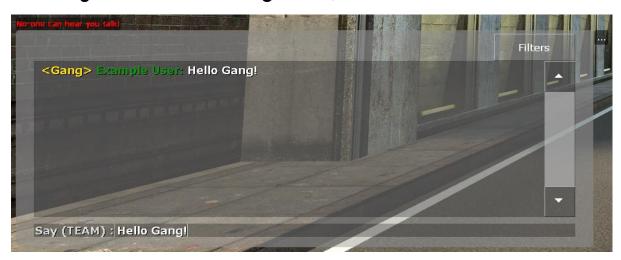
The Gang Chat is a way for members to communicate with each other privately. You can think of it like a group chat for all of the Gang Members, or Garry's Mod's team chat.

Provided that Gang Chat has been enabled, you can use the chat command specified in *Section 2. Configuration*, followed by your message to start chatting like so:



Other members Gang Chat messages will appear in your chat feed similar to your own, with the prefix <Gang>, like seen above.

Alternatively, if you chose to replace team chat with Gang Chat in the configuration, you can also send messages through team chat and they will be sent as Gang Chats, like so:



Viewing the Leaderboard

Provided the Leaderboard has been enabled, it can be opened with the chat command specified in *Section 2. Configuration*.

The Leaderboard provides rankings for both Gang Banks and DarkRP Wallets, assuming each tab has been enabled in the configuration.

Below shows an example of the 2 Leaderboard tabs:



The left shows the Gang Bank Leaderboard, and the right shows the DarkRP Wallet Leaderboard. To switch between the two, select the respective tab at the top left of the window.

Your position on the leaderboard will be hilighted in gold, like as seen above. If you do not reach the top 10, like the screenshot on the right, your rank will be displayed at the bottom along with your name and cash.

The Leaderboard only automatically refreshes when it is opened, so to fetch new values while it is already open, press the green refresh button in the top right.

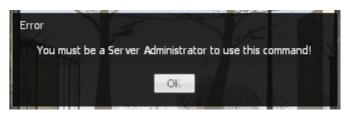
Press the 'Done' button in the bottom left corner to close the window and return to your game.

4. Administrator Guide

SimpleGangs provides a comprehensive platform for server administrators to manage Gangs in the most user-friendly way. Administrators can change and view almost every aspect of any Gang or member, giving them complete control over the entire addon.

The tool admins will use to interface with Gangs is the Gang Administration Console. It can be opened with the chat command specified in *Section 2. Configuration*, but only by members of the user groups also defined in the configuration file.

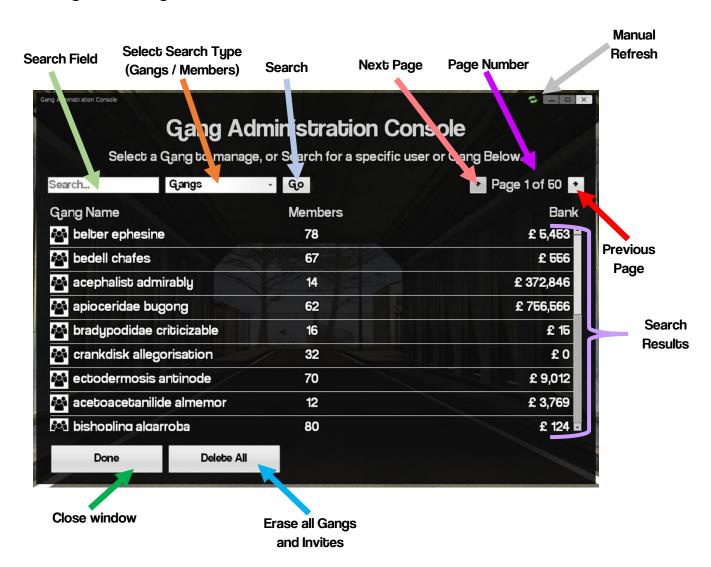
When members of user groups not specified in the configuration attempt to open the console, the following dialogue is displayed:



Access to the Administration Console is restricted on both the Server and Client, so the possibility of exploits is eliminated.

When authorised users issue the command, the Gang Administration Console, shown on the next page, will open.

Using the Gang Administration Console



Upon opening the Administration Console, the search field will be empty, and the search type set to Gangs. The results table will show a list of every Gang on the server including its member count and bank value (If applicable).

The results table is separated into multiple pages to make browsing search results easier. Each page shows 20 results in the table at a time. You can use the *Next Page* and *Previous Page*

buttons in the top right of the window to navigate between pages, as shown above. The current page number and total number of pages are displayed between the two buttons.

You can also enter a particular search term in the Search Field shown above to refine the results. Start typing in the field and the results table will automatically update to match your criteria.

The Administration Console supports two types of searches: Gangs and Members. You can use the Search Type dropdown box to select what to search for, the default being Gang. When the type is Gang, the results table will show a list of gangs which can be searched as described above. When the type is Members, the results table will show a list of all members from all gangs, shown below. It can also be searched in the same way to find a particular user or users.



It is worth noting that when filtering by member, only actual members of Gangs will be shown. Users who are not in a Gang will not be shown in this list.

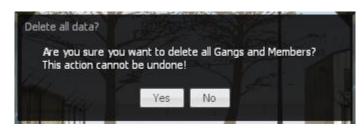
The 'Go' Button next to the Search Type dropdown box is not required to make a search, however it is included should you wish to refresh your search or retry following connection issues. The usual manual refresh button in the title bar is also included, however this will refresh the entire window, clearing the search query.

Press the 'Done' button in the bottom left corner to close the window and return to your game.

While the Gang Administration Console main window (shown above) can be used on its own to quickly search for Gangs and Members, and to find basic info about them (shown in their row), more detailed information and advanced management tools can be revealed by clicking a search result to open its own Administration window. This is detailed in the below sections.

Deleting all Gangs and Invitations (Reset Addon)

If you wish to reset SimpleGangs by deleting all Gangs and Invites, press the 'Delete All' button in the lower left corner.



The dialogue above will be displayed. As it suggests, deleting all SimpleGangs data is irreversible, so only proceed if you are certain with your choice. Press 'Yes' to confirm deletion, or 'No' to return to the Administration Console.

Note, this does not affect your configuration file, only user data associated with Gangs.

Managing Gangs

To view information and manage a particular Gang, ensure your search type is set to 'Gangs' in the dropdown menu of the Administration Console, then click the desired Gang in the results table (shown in the screenshots above).

Upon selecting a Gang, the following window will open:



This window provides you with additional information about the Gang (shown in orange), Management actions you can use to modify the Gang (shown in blue) and a list of the Gang's members, presented in a similar format to the Administration Console's main window, shown at the start of this chapter.

Below the title of the window, the Gang name is shown. This is followed by the number of members, and the bank balance (if applicable).

Underneath are 4 buttons:

- Delete: Pressing this will completely delete the entire Gang.
 All members of the Gang will be ejected, and all money in the bank will be lost. Note, no confirmation is requested, so do not accidentally press this button.
- Rename: The dialogue shown below will be opened, prompting the Admin to enter a new name for the Gang. If you provide the name of an existing Gang, the two will be merged together, keeping the selected Gang's bank value.



Enter the new name, or an existing name if you wish to merge Gangs, then press 'Rename' to complete the renaming. Press 'Cancel' to return to the previous screen.

 Set Bank Value: The dialogue shown below will be opened, prompting the Admin to enter a new value for the Gang Bank.
 Make sure to format the number correctly, e.g. No currency symbols, commas, or spaces. The existing balance shown in the dialogue will be overwritten with the supplied value.



Enter the new balance, then press 'Set' to update the Bank balance. This will update for all online members immediately. Press 'Cancel' to return to the previous screen.

 Join: This button allows Admins to join the Gang they are viewing themselves. When you press Join, you will immediately become part of the selected Gang, removing you from your current one if applicable. This is not a problem as you can easily re-join your old Gang using the same method. Upon joining, you will automatically be given the Owner rank. Note, no confirmation is requested, so be cautious to not accidentally press this button.

In the bottom half of the window is a table containing all the members of the selected Gang. This is similar to the search results table in the Administration Console's main window. Although not searchable, it is split up into multiple pages, which can be navigated using the same controls as before. The member rows contain the user's avatar, last online date (in mm/dd/yy format)

4. Administrator Guide (Cont.)

and rank within the Gang. You can click any one of these rows to reveal more detailed information and advanced management tools in its own Administration window, shown below.

Press 'Done' in the lower left corner to close the window and return to the Administration Console main page.

Managing Members

To view information and manage a particular Gang member, ensure your search type is set to 'Members in the dropdown menu of the Administration Console, then click the desired member in the results table (shown in the screenshots above).

Upon selecting a Gang, the following window will open:



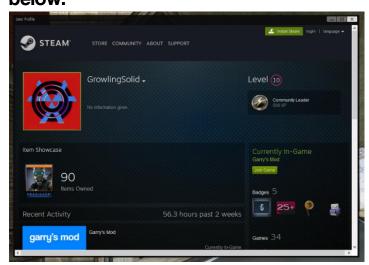
4. Administrator Guide (Cont.)

Similar to the Gang equivalent, This window provides you with additional information about the member (shown in orange), Management actions you can use to modify the member's settings (shown in blue) and a list of other members in the same Gang, presented in a similar format to the Administration Console's main window, shown at the start of this chapter.

Below the title of the window, the member's name is shown. This is followed by their current Gang name, their rank within the Gang, and their online status / last online date.

Underneath are 4 buttons:

 View Profile: We have met the view profile window before, in Section 3. User Guide. Pressing this button will open the selected user's Steam profile in a new window, like shown below:



 View Gang: Pressing this will display more detailed information and advanced management tools about the selected users Gang. This is described in detail in the previous subsection: Managing Gangs.

4. Administrator Guide (Cont.)

- Demote to Member / Promote to Co-Owner: The title of this button will alter based on the user's rank. If they are a member, you will be given the option to promote them to Owner rank, and if they are already an owner you will be given the option to demote them to Member rank.
- Kick: This button will kick the selected user from their Gang.
 Note, no confirmation is requested, and this action is not reversible without reinviting the user, so do not accidentally press this button.

In the bottom half of the window is a table containing all the members of the selected user's Gang. This is the same as the table shown in the Gang management window, detailed in the previous subsection, and similar to the search results table in the Administration Console's main window. Although not searchable, it is split up into multiple pages, which can be navigated using the same controls as before. The member rows contain the user's avatar, last online date (in mm/dd/yy format) and rank within the Gang. You can click any one of these rows to change the selected user.

Press 'Done' in the lower left corner to close the window and return to the Administration Console main page.

5. MySQL and the Database

If you do not have a MySQL Database, do not know what one is or do not wish to learn how SimpleGangs data is stored in the Database, you are advised skip this chapter.

SimpleGangs stores all of its user and Gang data in a Database powered by the SQL Structured Query Language. By default, it uses the built in Garry's Mod SQLite Database, which can be found at *garrysmod/sv.db*. You can however opt to use an external MySQL Database. This has some advantages over its SQLite counterpart, as it allows data to be backed up and moved between servers / hosts, as well as letting you use the information outside of Garry's Mod, like displaying Gang info on a website, or your server's loading screen.

Prerequisites

To start using MySQL with SimpleGangs, you must first install the latest version of the MySQLOO module. If you believe you already have the module, and are running the latest version, you can skip this step.

Open the following link in your web browser and follow the steps under 'Install Instructions': https://github.com/FredyH/MySQLOO. Once you have installed the correct DLL for your server, you can proceed to the next step.

You must make sure you have downloaded the right architecture of MySQLOO, or it simply will not be recognised by SimpleGangs.

Follow the method described on the GitHub page to determine your OS and architecture by entering a console command.

It is also worth noting that should you wish to use it, your MySQL server must be running version 8.0 or higher for the Leaderboard to work. While everything else will work fine, if you are running an older version and are not willing to update, the Leaderboard will display a blank screen when opened, so you are advised to disable it in the configuration.

MySQL Configuration

Similar to the file detailed in *Section 2. Configuration*, SimpleGangs also has its own Lua File for the MySQL settings. Similarly, knowledge of the Lua programming language is not required.



To begin, navigate to the following directory using your Server's file browser:

garrysmod/addons/simplegangs_1.1/lua/simplegangs_config/.

Inside you should see 2 Lua Files, *config.lua* and *mysql_config.lua*. This time open the second using your favourite text editor.

SimpleGangs supports 2 Separate MySQL Databases: One for all of the addon's user and Gang data, and the other for DarkRP, solely

used for the wallet Leaderboard. This file contains sections for each Database.

SimpleGangs MySQL Settings

```
-- SIMPLEGANGS MYSQL SETTINGS

SimpleGangs.orgsUseMySQL = true

SimpleGangs.orgDBHost = "host"
SimpleGangs.orgDBPort = 3306
SimpleGangs.orgDBDatabase = "database"
SimpleGangs.orgDBUsername = "username"
SimpleGangs.orgDBPassword = "password"
```

orgsUseMySQL: Set this to true if you wish to use an external MySQL database for storing SimpleGangs Data. If this is set to false, the below configuration will be ignored, and the built in SQLite Database will be used. This is a Boolean so set it to either true or false without quotations like seen above.

orgDBHost: This is the hostname of your MySQL Database to be used for SimpleGangs Data. You can ignore this if you set *orgsUseMySQL* to false. This is usually a domain, IP address or localhost if you are running the MySQL server on the same machine as the Garry's Mod server. This is a string, so make sure it is wrapped in quotation marks, as above.

- orgDBPort: This is the port of your MySQL Database to be used for SimpleGangs Data. You can ignore this if you set orgsUseMySQL to false. It is set to the default MySQL port, 3306, so you do not need to change this unless your MySQL server uses a different port. This is an integer, so must not contain a decimal point or quotations, like as seen above.
- orgDBHost: This is the database name of your MySQL Database to be used for SimpleGangs Data. You can ignore this if you set *orgsUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.
- orgDBUsername: This is the username to be used to connect to your MySQL Database used for SimpleGangs Data. You can ignore this if you set *orgsUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.
- orgDBPassword: This is the password to be used to connect to your MySQL Database used for SimpleGangs Data. You can ignore this if you set *orgsUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.

This file is only accessible server-side, so there is no risk of MySQL credentials being accessed by clients.

DarkRP MySQL Settings

If your server is not running DarkRP or a DarkRP derived gamemode, you should set *darkrpUseMySQL* to false. If your server does run DarkRP (or derived), but you have not configured it to use MySQL then you should also set *darkrpUseMySQL* to false.

If your DarkRP database is the same as the one you wish to use for SimpleGangs, use the same details you specified above. If you use a different server, provide the appropriate connection details and credentials.

```
-- DARKRP MYSQL SETTINGS

SimpleGangs.darkrpUseMySQL = false

SimpleGangs.darkrpDBHost = "host"
SimpleGangs.darkrpDBPort = 3306
SimpleGangs.darkrpDBDatabase = "database"
SimpleGangs.darkrpDBUsername = "username"
SimpleGangs.darkrpDBPassword = "password"
```

darkrpUseMySQL: Set this to true if you are running DarkRP or a
DarkRP derived gamemode and use an external MySQL
database for storing its data. If this is set to false, the
below configuration will be ignored, and the built in
SQLite Database will be used. This is a Boolean so set it
to either true or false without quotations like seen
above.

- darkrpDBHost: This is the hostname of your MySQL Database where DarkRP Data is stored. You can ignore this if you set darkrpUseMySQL to false. This is usually a domain, IP address or localhost if you are running the MySQL server on the same machine as the Garry's Mod server. This is a string, so make sure it is wrapped in quotation marks, as above.
- orgDBPort: This is the port of your MySQL Database where DarkRP Data is stored. You can ignore this if you set darkrpUseMySQL to false. It is set to the default MySQL port, 3306, so you do not need to change this unless your MySQL server uses a different port. This is an integer, so must not contain a decimal point or quotations, like as seen above.
- orgDBHost: This is the database name of your MySQL Database where DarkRP Data is stored. You can ignore this if you set *darkrpUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.
- orgDBUsername: This is the username to be used to connect to your DarkRP MySQL Database. You can ignore this if you set *darkrpUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.
- orgDBPassword: This is the password to be used to connect to your DarkRP MySQL Database. You can ignore this if you set *darkrpUseMySQL* to false. This is a string, so make sure it is wrapped in quotation marks, as above.

Like the above section, this file is only accessible server-side, so there is no risk of MySQL credentials being accessed by clients.

Checking the connection

When a MySQL Configuration has been setup like above, SimpleGangs will display a connection message in the server console during start-up.

Below shows an example of a successful connection to the SimpleGangs database:

[SimpleGangs] Success: Connection Established between Server and SimpleGangs MySQL Database

And to the DarkRP database:

[SimpleGangs] Success: Connection Established between Server and DarkRP MySQL Database

Should the connection fail, an error message will be shown including the reason for the failure, and which connection encountered the problem. In the below example, the message tells us that the MySQL server host could not be found, indicating that we may have made a typo in the hostname (localhostt instead of localhost)

[SimpleGangs] Error: Connection to SimpleGangs MySQL Database Failed. The following Error Message was provided: Unknown MySQL server host 'localhostt' (0)

5. MySQL and the Database

Alternatively, an error may occur during the execution of a query. This will also yield an error message, like the one below. Note data will not be saved if an error occurs with the query, however SimpleGangs will automatically re-establish your MySQL connection if it is lost when it comes back online. The example below tells us that the connection was lost.

```
[SimpleGangs] Error: Query to SimpleGangs MySQL
Database Failed. The following Error Message was provided:
Can't connect to MySQL server on 'localhost' (10061)
```

Alternativley, if you have failed to correctly install the required MySQLOO module described in the prequisites subsection, you will encounter the following error message. Like it suggests, ensure you have installed the correct version for your system.

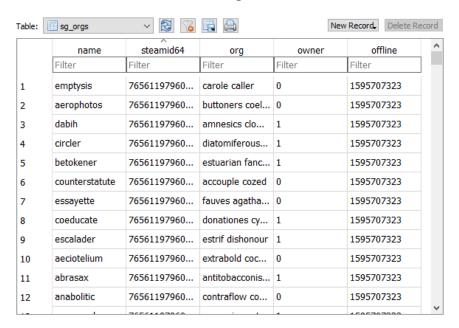
```
ISimpleGangs | Error: A MySQL Configuration was provided for SimpleGangs but the required module 'mysqloo' was not found.
Check the installation guide and ensure the correct architecture has been installed.
```

Database Structure

SimpleGangs creates 4 tables in the database upon its first run, which it uses to store various data about Gangs, Invites and players. In this subsection we will explore each one, how data is stored and structured. A list of columns for each table is provided.

sg_orgs

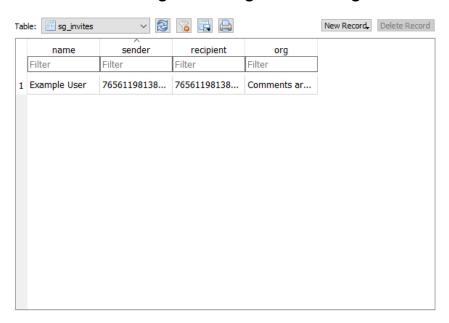
This table stores a list of users and their details within their Gang. Each row represents a Gang member. Gangs are not stored themselves but exist only as a collection of records in this table.



- name: Member's Nickname. This is only used by SimpleGangs to display offline member's names. Type is TEXT.
- steamid64: Member's 64-bit Steam ID. Used by SimpleGangs for lots of things like retrieving avatar images and checking if they are online. This is unique, unlike *name*. Type is BIGINT.
- org: The Gang that the member belongs to. Remember Gang names are unique and case sensitive (EXAMPLE and example are 2 different Gangs). Records that share this value are members of the same Gang. Type is TEXT.
- owner: The member's rank within their Gang. 0 for member, 1 for owner. SQLite does not support Boolean datatypes, so type is INT.
- offline: The exact date and time the member last logged off. Used to calculate 'last online' data in game. This is stored as a Unix timestamp. Type is BIGINT.

sg_invites

This table stores all of the Invitations to join Gangs. Only pending invitations are stored here, as once an Invite is accepted or declined, it is removed from the database. Each record represents one invitation. The example below features only one invitation, however in reality it is likely to be many more.



name: The Nickname of the user who sent the invite. This is only used by SimpleGangs if the sender of the invite is offline. Type is TEXT.

sender: The 64-bit Steam ID of the user who sent the invite. Used by SimpleGangs to retrieve avatar image and check online status etc. Type is BIGINT.

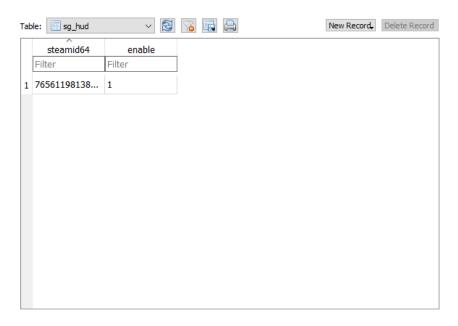
recipient: The 64-bit Steam ID of the user who is receiving the invite. Used by SimpleGangs to identify which player to send to. Type is BIGINT.

org: The Gang that the *recipient* is being invited to by the *sender*.

Type is TEXT.

sg_hud

This table simply stores whether a user has chosen to enable the Gang HUD, so that their choice can be remembered, and their preference saved. By default, a record will only be created if the user has toggled the option before, so if they do not exist in this table, assume they have never changed the HUD setting, therefore their HUD should be disabled. The example below features only one user, however in reality it is likely to be many more.

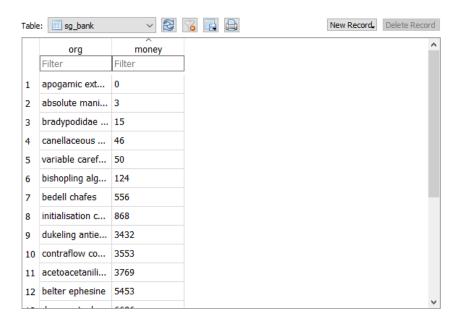


steamid64: User's 64-bit Steam ID. Used by SimpleGangs to identify which users HUD's are enabled or disabled. This is unique. Type is BIGINT.

enable: Whether to enable or disable the respective user's HUD. 0 for disable, 1 for enable. SQLite does not support Boolean datatypes, so type is INT.

sg_bank

This table stores the bank balances for all the Gangs on the server. A record is only added when the first deposit is made, so assume the balance to be 0 if no record exists. This table will be created regardless of whether the bank system or DarkRP is enabled but will be unpopulated.



org: The Gang Name. Remember Gang names are unique and case sensitive (EXAMPLE and example are 2 different Gangs). Type is TEXT.

money: The bank balance of the Gang. This can be sorted on using SQL's DESC keyword to obtain top ranking Gangs. Type is BIGINT.

6. Outro

Should you have any further questions that have not been answered within this guide or any suggestions, you can contact me via the email address provided on my GitHub page (https://github.com/RW128k).

Thank you for using SimpleGangs.

@ RW128k 2021