Ubuntu & UGCC Install Guide
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This guide was written based on Ubuntu 20.04 LTS x64 server using a minimal install.   The procedure should be very similar for other versions and editions of Ubuntu.   These steps should work with Debian 11.0 and newer as well.

We will install everything into /ugcc.   You can choose whether or not to use a different path to install to; make your substitutions where necessary.   Also keep in mind that the user the panel runs as will need rwx permissions to your game server install paths.

Commands are in italics.

Requirements

- Database: SQLite or MySQL, this guide uses SQLite.   We'll make notes throughout the guide for MySQL differences.   If you plan on having one web interface manage multiple remote monitors/nodes; you should use MySQL.   If you don't plan to expand and/or want something simple to start with, SQLite is a great choice.

- Mono: Version 4 or greater

- Apache

Assumptions

- We'll install everything in /ugcc, make edits where necessary if a different location is used

- At the time of 20.04's release, the included version of mono was the latest, and we'll use Ubuntu's packaged version of mono with this guide.   If you want to use the latest version of mono, please see their Ubuntu instructions: https://www.mono-project.com/download/stable/#download-lin-ubuntu

Considerations

- If you don't ever plan on purchasing a license, skip the monitor specific steps

- If you believe you may purchase a license at some point or request a demo license, install the monitor

- The monitor and panel will potentially run as two different users (panel is www-data, monitor by default runs as root)
    - This will cause issues, to work around this you can (listed in recommended order):
        - Configure the monitor in remote mode.   This will make the panel use the monitor for all functions.   All advanced features in the panel will work and less upkeep is required of permissions since the monitor runs as a privileged user by default.   Even if using SQLite, you'll be able to do this for a monitor that runs on the same box as the web panel.
        - Have the monitor run as the same user as the web server.   This will limit some of the advanced features the panel has due to running as a non-privileged user and may require a little more upkeep in setting permissions.   See the "**Set Monitor to Run As Same User As Apache via Systemd**" section.

Licensing

The panel uses a license file to activate the monitor and other advanced features of the panel. You can generate a license request file in the panel (via the Settings menu→About UGCC->Generate license request file button) or by running the monitor once without a license. The panel creates a <hostname>.licr file and the monitor creates a <hostname>.licrm file in the /ugcc/logs folder.   Either file can be used.

Login to your customer portal account at https://www.brainless.us/Customers.   Click the request link next the pool you want to use to license this host.   Now upload the license request file, or copy/paste the contents of the request file into the text box.   Click the submit button.

You'll be taken back to the main page and in the Licenses table (the one below the list of license pools) you should see a new entry with your hostname.   Click the View/Download link.   From this page you can download the license or copy the contents of your license file.   Save the downloaded file (should be in the format <hostname>.lic) in the logs folder of the panel.   If you want to create the license file and paste the information, create a new file in the format of <hostname>.lic and paste the contents into this file.

Restart apache (systemctl restart apache2) to have panel load the license.   You can verify the license is working by going back to the Settings Menu→About UGCC page.

You should also be able to start the monitor now (systemctl start ugccmon).   Review the monitor's log or view the panels log tool to verify it started.

Let's install mono, and other things required by the panel.

sudo -i

(Optional) Update your system: *apt update && apt -y upgrade*

apt update && apt -y install mono-complete p7zip-full p7zip-rar zip net-tools ca-certificates-mono mono-xsp4 mono-apache-server4 apache2 libapache2-mod-mono mono-apache-server lib32gcc1 acl gcc-multilib

Mono should now be installed, let's check the version.   It should be 6.8 or greater (guide was written with version 6.8.0.105).

mono -V

ln -s /sbin/ifconfig /bin/ifconfig

Install, Configure, and Test Web Panel

mkdir -p /ugcc/www

cd /ugcc

mkdir mon logs deploy servers

cd deploy

Download the latest version of UGCC.   You can replace $(curl www.brainless.us/versions/ugcc.txt) with an exact version if necessary (i.e. 2.21).

wget http://redirect.brainless.us/UGCC/$(curl www.brainless.us/versions/ugcc.txt)/Deploy.7z

7z x Deploy.7z

cd Deploy/WWWPanel-Linux-Mono4

*cp -r * /ugcc/www*

cd ../Monitor/Linux-Mono4

*cp -r * /ugcc/mon*

cd ../../DB

Here'll we'll be copying the ugcc.db3 file to the logs folder, but if you're using MySQL, use the ugcc.sql file here to import into your MySQL server.

cp ugcc.db3 /ugcc/logs

cd ../Configs/Linux-Mono4

cp Web.config /ugcc/www

cp ugccmon.cfg /ugcc/mon

We should be done copying files; now time to edit configuration files.

cd /ugcc/www

The configuration file for the web panel uses settings similar to "<add key="log' value="/ugcc/logs" />".   To change the setting edit the value in the quotes after value=.   If you are placing everything in the /ugcc folder you do not need to edit the configs.

nano Web.config

Set the log setting to where you placed the logs folder (i.e. /ugcc/logs)

Set the dbtype setting to SQLite (or MySQL if using MySQL; if using MySQL you'll also need to set the sqlsrvr, user, password, and dbname settings)

Set the sqlitelocation setting to the logs folder (i.e. /ugcc/logs)

Note: At the time of the creation of this guide, xsp4 was not working.   Disregard if you get an error message.   We'll continue with configuring the panel with apache further in the guide. Take note of the default username and password before continuing.

Save and close (control+x).   Now let's try to run and access the panel.   Make sure you are in the www folder when running this command (/ugcc/www).

xsp4

You should see some output, open a browser and browse to http://ip:port/Check.aspx (usually port 9000; Check.aspx is case sensitive).   If all the values are true, you may login to the panel so that database can be updated.   If one or more values are false attempt to correct them. Feel free to contact us on the forums if you need assistance.

Click the Login menu link to go to the login screen and login with:
User: admin
Password: admin

Once logged in please <u>change the default</u> admin password!

We are done with the web panel now; on to configuring the monitor.   Press enter to exit out of xsp4.

<u>Setup Panel with Apache</u>

We recommend hosting the panel with apache, here we'll setup apache and the panel to work with apache.

cd /var/www/html

rm index.html

cp -r /ugcc/www/* .

cd ..

chown -R www-data: html

chmod -R g+rwX html

We need to fix some file permissions.   My version of Ubuntu runs apache as www-data, so that user will need read/write access to the logs/license and any game server folders.   This sets the acl so all new files get the correct permissions.   You can replace www-data with any additional users whom need access (i.e. your normal user account).

setfacl -Rm u:www-data:rwX /ugcc

setfacl -Rdm u:www-data:rwX /ugcc

Now try to access the Check.aspx page of the panel to make sure everything is working.   You may continue to use the free edition of the panel, but to fully evaluate all the features you may want to purchase a license or request a demo license from our forums.

Let's link /ugcc/www to /var/www.   Helps to find it in the future and helps makes things less complicated when it's time to upgrade.

cd /ugcc

rm -rf www

ln -s /var/www/html www

Monitor Setup (Requires a license to run)
If you don't have a license, the monitor will not run!

cd /ugcc/mon

(Again, you don't need to modify the ugccmon.cfg file if you are installing everything in /ugcc.)

nano ugccmon.cfg

Set the **[DBEngine]** setting to SQLite (or MySQL if using MySQL).

Set the **[DBConfig]** setting to Data Source=/ugcc/logs/ugcc.db3 (or use the example MySQL string (see the setting's comment) and customize it for your environment).

Set the **[LogConfig]** and **[License]** settings to /ugcc/logs.

You can customize the rest of the settings to your liking.   Pay attention to the notes of each setting.   Save and close.

Copy the ugccmon.service file in the Tools/Linux/Systemd/Ubuntu2004 folder of the deploy package to /etc/systemd/system folder.   Edit the paths of the ExecStart line (if necessary), making sure the –d: setting is the path to where the monitor was installed.   If you've followed this guide you shouldn't have to edit the paths.   Set the script to be executable:

cd /etc/systemd/system
cp /ugcc/deploy/Deploy/Tools/Linux/Systemd/Ubuntu2004/ugccmon.service .
chmod +x ugccmon.service
systemctl daemon-reload
systemctl enable --now ugccmon

You can test that it works by starting it then checking the status:

systemctl start ugccmon
systemctl status ugccmon

Now you can control it with the systemctl command.

systemctl start ugccmon
systemctl stop ugccmon

The log file for the monitor is /ugcc/logs/ugccmon.log.   This is a great first place to start troubleshooting startup issues.

The next two sections detail how to finalize setting up the monitor.   The choice is yours. Review the considerations section at the top of this document to help you decide which method to use.

Setup Monitor to Run as a Privileged User and Enable Local Remote Mode

Please review the considerations section at the top of this manual to decide whether to use this mode or the following mode.

Create a new definition.   Disregard any warnings about not using MySQL.

- In the web panel Navigate to Settings→Server Definitions

- At the bottom of the page, create a new Definition.   Name it whatever you'd like (i.e. Local monitor (Use me)).   Click the add button.

- In the Address field, enter localhost

- Select Linux in the Platform dropdown

- Enter a shared secret

- Click the update button

- Make note of your Server Definition ID value and your shared secret

Update Monitor configuration file

- nano /ugcc/mon/ugccmon.cfg

- Set the [Remote] setting to True

- [Port] default is fine unless you changed it in the step above

- Enter the Shared Secret in the [Secret] Setting

- Enter the Server Definition ID value you noted above in the [ID] setting

- Close and save the config file (ctrl+x)

- Restart the monitor (systemctl stop ugccmon && systemctl start ugccmon)

- Review the monitor's log file (/ugcc/logs/ugccmon.log) and/or the panel's Settings->Log Tool to ensure it's started in remote mode.   You should see a line similar to 'Remote mode enabled. My ID=2, Port=3432, Ignore hash=False, Ignore timestamp=False'

Verify it's working

- Back at the Server Definition Page in the panel, click the Test button near the bottom of the page (make sure you select the remote monitor in the topmost dropdown).   You should get a message indicating it was able to connect successfully.

Using the local remote monitor with game servers

- When setting up servers (or already created servers), the Server Definition Field on the general tab should be set to the name you entered for this server definition.   If you followed the guide you would see a 'Local monitor (Use me)' setting.   That is the correct one to choose.   Example below:

Setup Monitor to Run as Same User as Apache via Systemd

Please review the considerations section at the top of this manual to decide whether to use this mode or the previous mode.

If you plan on using the panel with apache, change the monitor to run as the same user as apache by uncommenting the user and group directives in the ugccmon service file.

nano /etc/systemd/system/ugccmon.service

- Remove the '#' from the user and group lines

- Set the setting for both user and group to www-data

- Save and exit

Now reload and start the monitor service

systemctl daemon-reload

systemctl start ugccmon

systemctl status ugccmon

Verify in the log tool or the monitor's log file that the monitor reports it is running as the www-data user.

Setting up your first server

Setup your game server in /ugcc/servers.   Enter the information in the panel to tell the panel where it's located and how to start it.   Some templates are available on our site. http://www.brainless.us/forum/viewtopic.php?f=21&t=1041

Troubleshooting

If you have questions or encounter any issues,   please feel free to contact us using any of the methods listed at https://www.brainless.us/contact.aspx

Logs are located in /ugcc/logs.   ugccmon.log is the monitor log.   ugccweb.log is the panel's log file.   Data in these files should also be visible from the Panels Settings→Log Viewer tool if the monitor/panel are able to access the database.

License request files can be found in /ugcc/logs