The following version is for DeforumationQT version 0.1.2

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Prerequisites

You need to have Automatic1111 installed. Get it and read install instructions at:
https://github.com/AUTOMATIC1111/stable-diffusion-webui

DeforumationQT has been tested with Python version 3.10.x

Download the appropriate python version from: https://www.python.org/downloads/

Installation Windows

Begin by going into the "Deforum_Version"-folder and choose how you want to communicate. Inside the "Deforum_Version"-folder there are three folders to choose from.

"piped"-folder: uses named pipes for communication. If you are running things locally on Windows, we can highly recommend using this option.

"socket"-folder: uses websockets for communication.

"hybrid"-folder: This is a version of Deforum that will check if you are using Windows or something else. If you are using Windows you can control this version of Deforum, to either use Websockets or Named Pipes for communication. If it discovers that it is not a Windows machine, it will forcefully apply Websocket communication.

Copy, whatever version of "sd-webui-deforum" you decide to use, to your Automatic1111 "extensions" folder, usually located in the install root of Automatic1111.

E.g: If I was doing it, I would copy the "sd-webui-deforum" located in the "piped" folder to my folder H:\stable-diffusion-webui\extensions\

If you already have a copy of sd-webui-deforum, you can just overwrite, delete it or make a copy of it somewhere, if you want to go back to the original version, at a later time. Notice that our modified version of Deforum does not work without Deforumation!

If Automatic1111 was running, it needs to be restarted.

To install and start DeforumationQT, run (double-click) either "runme_windows_named_pipes.bat" or "runme_windows_websockets.bat" (it should match what version of Deforum you choose to go with in the previous step.)

Installation Linux

Begin by going into the "Deforum_Version"-folder and copy the " sd-webui-deforum" folder under the "socket" folder, to your Automatic1111 "extensions" folder, usually located in the install root of Automatic1111.

If you already have a copy of sd-webui-deforum, you can just overwrite, delete it or make a copy of it somewhere, if you want to go back to the original version, at a later time.

If Automatic1111 was running, it needs to be restarted.

If you want to use the bash file "runme_linux_websockets.sh", which installs the virtual environment, sets everything up and starts DeforumationQT, you will have to "sudo apt install xterm", as **xterm** is used for starting the mediator and DeforumationQT.

After you have installed **xterm**, you are ready to open a terminal, and in the "Deforumation" run it with: source runme_linux_websockets.sh

It might also work to directly just execute it through ./runme_linux_websockets.sh

The bash file just executes a one liner: **source rl.sh "--mediator_deforum_address 127.0.0.1" "-mediator_address 127.0.0.1"** which decides how the different components are to communicate.

The first **"--mediator_deforum_address 127.0.0.1"** are the arguments passed to the mediator, and the second one, **"--mediator_address 127.0.0.1"** are the arguments that are passed to DeforumationQT.

Manual installation

Make sure you have python 3.10.xx installed

If you don't, for Linux users (tested on Ubuntu) install it through these steps:

```
 apt update && sudo apt upgrade -y  apt
install software-properties-common -y  add-
apt-repository ppa:deadsnakes/ppa  sudo
add-apt-repository ppa:deadsnakes/ppa  apt
install python3.10
```

  (make an alias if you like)
```
 alias python3=/usr/bin/python3.10
```


Make sure you have installed python venv:

(If missing python venv on Linux):
```
 apt install python3.10-venv
```

Activate the virtual environment:

(On Linux & MacOS):
```
 source ./venv/bin/activate
```

(On Windows)
```
.\venv\Scripts\activate.bat
```

Your terminal prompt should now have a "(venv)" infront of it, signaling you are now inside the Virtual environment. E.g.:

```
(venv) yourname@virtyourname:~/Documents/DeforumationQT_0.1.1/Deforumation$
```

Install the requirements:

(Now when inside the virtual environment, "python" has been automatically "aliased" to python3.10)

(For Linux & MacOS):

```
python -m pip install -r requirements_linux.txt
```

(For Windows):

```
python -m pip install -r requirements_win.txt
```

Now, try starting the mediator with:

```
python mediator.py
```

Then, in another terminal window (it also needs to be inside the Virtual environment)

```
python deforumation.py
```

Trouble Shooting

On Linux you might bump into this error message:

```
Starting DeforumationQT's liveView server, using local WebSocket
communication, listening on 127.0.0.1:8767

Connecting to the Mediator's server using 127.0.0.1:8766

qt.qpa.plugin: From 6.5.0, xcb-cursor0 or libxcb-cursor0 is needed
to load the Qt xcb platform plugin.

qt.qpa.plugin: Could not load the Qt platform plugin "xcb" in ""
even though it was found.

This application failed to start because no Qt platform plugin could
be initialized. Reinstalling the application may fix this problem.

Available platform plugins are: vnc, vkkhrdisplay, wayland,
minimalegl, xcb, wayland-egl, eglfs, linuxfb, offscreen, minimal.

Aborted (core dumped)
```

That just means you need to install the missing xcb-cursor0 library. You do this with:

```
sudo apt-get install libxcb-cursor0
```

Now DeforumationQT should start by running:

```
python deforumation.py
```

Mediator arguments

To change the listening addresses and port for the mediator in communication with Deforum not being run locally, you can use, E.g:

```
   python mediator.py "--mediator_deforum_address 0.0.0.0 -
mediator_deforum_port 8765"
```

The mediator can now receive external traffic from Deforum on port 8765

The same can be done for traffic between Deforumation and the mediator:

```
   python mediator.py "--mediator_deforumation_address 0.0.0.0 -
mediator_deforum_port 8766"
```

DeforumationQT arguments

To change the listening addresses and port for DeforumationQT in communication with the mediator, you can use, E.g:

```
python deforumation.py "--deforumation_address 0.0.0.0 -
deforumation_port 8767"
```

DeforumationQT can now receive external traffic from the mediator on port 8767

To specify how to contact the mediator, use:

```
python deforumation.py "--mediator_address 127.0.0.1 --mediator_port
8766"
```

```
You could combine everything through, e.g:
```

```
python deforumation.py "--deforumation_address 0.0.0.0 --
deforumation_port 8767 --mediator_address 127.0.0.1 --mediator_port
8766"
```

Deforum arguments

To change how Deforum communicates with the mediator, you need to open **".../ sd-webui-deforum/scripts/deforum_helpers/deforum_mediator.cfg"** which has a simple oneliner for how it should reach the mediator.. Default line is:
```
   ws://127.0.0.1:8765
```

If the **deforum_mediator.cfg** file is removed, and you are using the "Hybrid" version of Deforum, then Deforum will use named pipes as it's communication method.

Running Deforumation with OSC

DeforumationQT can be controlled through OSC if started with the OSC argument.

(On Windows)

Run the **"runme_windows_named_pipes_osc.bat"** file or
the **"runme_windows_websockets_osc.bat"** file

(On Linux)

Run the **"runme_linux_websockets_osc.sh"** file

(On other platforms or manually)

Start DeforumationQT with:

```
python deforumation.py "--use_osc –osc_port 5005"
```

If you don't specify a port, 5005 will be used as default.

In the Example folder in the "Deforumation"-root, two files have been provided that use the OSC protocol to communicate with DeforumationQT.

Look at the **"test_osc_client.py"** file to understand what values can be communicated.

Further Help

Need further help?

Ask in our Discord server "Deforumation".

https://discord.gg/rbKFVh9v87