AutoQuality

Introduction

The AutoQuality script for Unity automatically adjusts your game's graphic quality level in real time based on the current frames per second (FPS). It also displays the FPS and quality level information on the screen.

This updated version simplifies the display of FPS as an integer value (no decimal places).

Overview

- Dynamic Quality Adjustment:

- If FPS < 30, the script reduces the quality level.

- If FPS > 50, the script increases the quality level.

- Information Display:

- Optionally shows current FPS.

- Optionally shows current Quality Level.

- Text color dynamically changes based on performance.

- Post-Processing Handling:

- Optionally activates/deactivates a Post-Processing GameObject when maximum quality is reached.

- Automatic UI Generation:

- No need to manually create UI elements. The script creates the necessary Canvas and Text at runtime.

How to Use

1. Import the AutoQuality script into your Unity project.

2. Attach the script to any active GameObject in your scene (e.g., Main Camera or a Game Manager).

3. Configure the script's public options in the Unity Inspector according to your needs.

4. Play the scene. The script will automatically manage quality and display performance info.

Inspector Options

Display Options

AutoQuality

- Show Quality Level (bool): Displays the current Quality Level.

- Show FPS (bool): Displays the current Frames Per Second (FPS) as an integer (no decimal places).

- Update Color (bool): Changes the text color based on FPS:

- Green: FPS >= 30

- Yellow: 11 <= FPS <= 29 - Red: FPS <= 10

- Update Frequency (float): Time interval (in seconds) for updating the displayed FPS and Quality info.

Optional

- posProcess (GameObject): Drag a Post-Processing GameObject here. It will be enabled only when
  thegame is running at the highest available quality level.

Additional Notes

- Performance Thresholds:

- FPS thresholds (30 for decrease, 50 for increase) are hardcoded but can be adjusted by modifying
  theUpdateAutoQuality() method if needed.

- UI Elements:

- A new Canvas and Text are automatically created when the script runs.

- Script Execution:

- Ensure that the GameObject with the AutoQuality script is active in the scene for proper execution ofStart()
  and Update() methods.

Example Usage Scenario

Attach the AutoQuality script to your Main Camera. Enable Show FPS, Show Quality Level, and Update
Color. Link your Post-Processing GameObject if using one.

When you run your game:

AutoQuality

- FPS and Quality Level will appear at the top of the screen.

- If performance drops, the quality will automatically adjust.

- Colors will help you quickly see performance health.

Version Info

- Script Version: Updated April 2025

- Unity Compatibility: Tested with Unity 2021.3 and above.

Support

For any issues or customization requests, please contact your development team or the script maintainer.