

# JazzCreate Multi-Purpose UI

## Sprites Content & User Guide

Version 1.1

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### 1. Overview

**JazzCreate Multi-Purpose UI** is a pixel-style UI and sprite pack with a simple 2D shooter demo scene.

The package is designed to demonstrate how modular UI sprites can be combined, recoloured, animated, and reused to build a wide variety of game UI elements.

This package includes:

- A complete UI sprite sheet
  - Ready-to-use UI prefabs
  - A simple 2D shooter demo scene
  - Example scripts showing player control, shooting, enemy spawning, and object pooling
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### 2. Requirements

- Unity **2022.3 LTS or newer**
  - 2D project
  - Built-in Input Manager (keyboard controls)
  - No external packages required
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### 3. Sprite Sheet Details (Main Asset)

- **Texture size:** 2048 × 2048 px
- **Cell size:** 128 × 128 px
- **Total sprites:** 256
- **Pixel style:** 8 × 8 pixel blocks (pixel-art friendly)

#### Recommended Import Settings

For the main sprite sheet:

- Texture Type: **Sprite (2D and UI)**
- Sprite Mode: **Multiple**
- Pixels Per Unit: **100**
- Max Size: **2048**

### Slicing Instructions

1. Open **Sprite Editor**
2. Click **Slice**
3. Type: **Grid by Cell Size**
4. Cell Size: **128 × 128**
5. Click **Slice**, then **Apply**

Sprites are now ready for use.

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### 4. Demo Scene (Demonstration Assets)

The demo scene is included to show practical usage of the UI sprites and scripts.

#### Scene Includes:

- Main Camera (Orthographic)
- EventSystem (required for UI)
- Menu Canvas prefab
- HUD Canvas prefab
- Player prefab
- Enemy prefab
- Bullet prefab
- Enemy Spawner prefab

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### 5. UI Prefabs

- **63 ready-to-use UI image prefabs**
- Some prefabs include simple animations
- Designed to be easily recoloured for different themes

Examples include:

- Panels
- Buttons
- Icons
- Decorative UI elements

You can freely change colours, scale, and layer these prefabs to create multi-colour UI designs.

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## 6. Example Scripts (Educational)

This package includes **example scripts** intended for learning and prototyping:

### 1. Game setup script

Starts the demo scene and initialises gameplay.

### 2. Enemy behaviour

- Simple movement
- Animated UFO light effects
- Uses **object pooling** (no runtime Instantiate/Destroy)

### 3. Player control & shooting

- Player movement
- Screen clamping
- Shooting
- Health handling
- Player logic split into separate scripts for clarity and extendability
- Player bullets are pooled

### 4. Enemy spawning

- Uses timed spawning
- Enemies spawn at random positions across the top of the screen
- Fully pool-based for better performance

### 5. Bullet behaviour

- Bullet collision handling

- Auto-disable after a set time if nothing is hit
  - Prevents hierarchy build-up
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## 7. Controls (Demo Scene)

- **Arrow Keys / WASD** – Move Player
  - **Space / Fire1** – Shoot
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## 8. UI & Sprite Usage Tips

- When adding a UI Image:
    - Select the sprite
    - Click **Set Native Size** (128 × 128 px)
  - Sprites can be scaled to:
    - 128, 64, 32, 16, or 8 px  
while maintaining pixel clarity
  - For multi-colour UI:
    - Stack multiple UI Images as children
    - Adjust hierarchy order to control layering
    - Temporarily recolour layers to help with alignment
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## 9. Notes

- This is a **free demo / educational package**
  - Intended for learning, prototyping, and UI experimentation
  - Scripts are simple by design and can be extended or replaced
  - No ongoing support is guaranteed
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