

**Открытый урок по дисциплине
ОП.16 Основы разработки VR/AR и
игровых приложений**

по теме “Панель инструментов Unity,
компоненты, окружения, сцены”

гр. ИС-20-01

Преподаватель
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A man wearing a white long-sleeved shirt and black safety glasses is shown from the side, holding a handheld controller. He is standing in a virtual reality environment that appears to be a workshop or factory. The background features various pieces of machinery, including a large green machine with a red top and a blue machine with a yellow top. The lighting is dim, with a blue glow on the right side of the frame.

Цель урока:

Знакомство со средой разработки игровых приложений, с инструментами, окружением и работой со сценой

ОКРУЖЕНИЕ

The image displays the Unity 2021.3.20f1 Personal development environment. The main window shows a 3D scene with a checkered floor and several interactive objects, including a player character, a target, and various pedestals. The Hierarchy panel on the left lists the scene's structure, including a Player, Environment, and multiple instances of a 'Throwable' object. The Inspector panel on the right shows the properties of the selected 'Throwable' object, including its Transform, Rigidbody, and various scripts like 'Velocity Estimator' and 'Interactable'. The Project panel at the bottom left shows the asset hierarchy, and the Console at the bottom displays a warning about a lighting data asset.

My project (5) - Interactions_Example - Windows, Mac, Linux - Unity 2021.3.20f1 Personal <DX11>

File Edit Assets GameObject Component Window Help

VS

Hierarchy

- Interactions_Example
 - Player
 - Environment
 - Teleport
 - Simple Interactable
 - Interesting Interactables
 - LinearDrive
 - Longbow
 - CircularDrive
 - Throwing
 - Velocity Movement
 - Parent to hand
 - Pedestal
 - TeleportPoint
 - TitleCanvas
 - DescriptionCanvas
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Throwable (from hand velocities)
 - Table_Small
 - Estimated Velocity
 - Target
 - On ground

Scene Game

Inspector

Throwable (from hand velocities) Static

Tag Untagged Layer Default

Prefab Open Select Overrides

Transform

Position X 0.375 Y 1.05 Z -0.388

Rotation X 0 Y 135 Z 0

Scale X 1 Y 1 Z 1

Rigidbody

Mass 1

Drag 0

Angular Drag 0.05

Use Gravity

Is Kinematic

Interpolate None

Collision Detection Continuous

Info

Velocity Estimator (Script)

Script VelocityEstimator

Velocity Average Frames 5

Angular Velocity Average Fra 11

Estimate On Awake

Interactable (Script)

Script Interactable

Please generate SteamVR input actions

Hide Hand On Attach

Hide Skeleton On Attach

Hide Controller On Attach

Hand Animation On Pickup 0

Set Range Of Motion On Pick None

Use Hand Object Attachment

Attach Ease In

Snap Attach Ease In Time 0.15

Snap Attach Ease In Complet

Hand Follow Transform

Highlight On Hover

Hide Highlight 0

Hover Priority 0

Throwable (Script)

Script Throwable

Attachment Flags Mixed...

Attachment Offset None (Transform)

Catching Speed Threshold -1

Project Console

Search: All In Packages In Assets 'SteamVR'

Assets

- Scenes
- SteamVR
- SteamVR_Resources
- StreamingAssets
- XR

Packages

- Code Coverage
- Custom NUnit
- Editor Coroutines
- JetBrains Rider Editor
- OpenVR XR Plugin
- Profile Analyzer
- Settings Manager
- Subsystem Registration
- Test Framework
- TestMeshDr

Lighting data asset 'LightingData' is incompatible with the current Unity version because the scene it was baked for was not serialized. Please use Generate Lighting to rebuild the lighting data, or assign the target scene to the Lighting Data Asset in the inspector.

18:11 20.09.2023

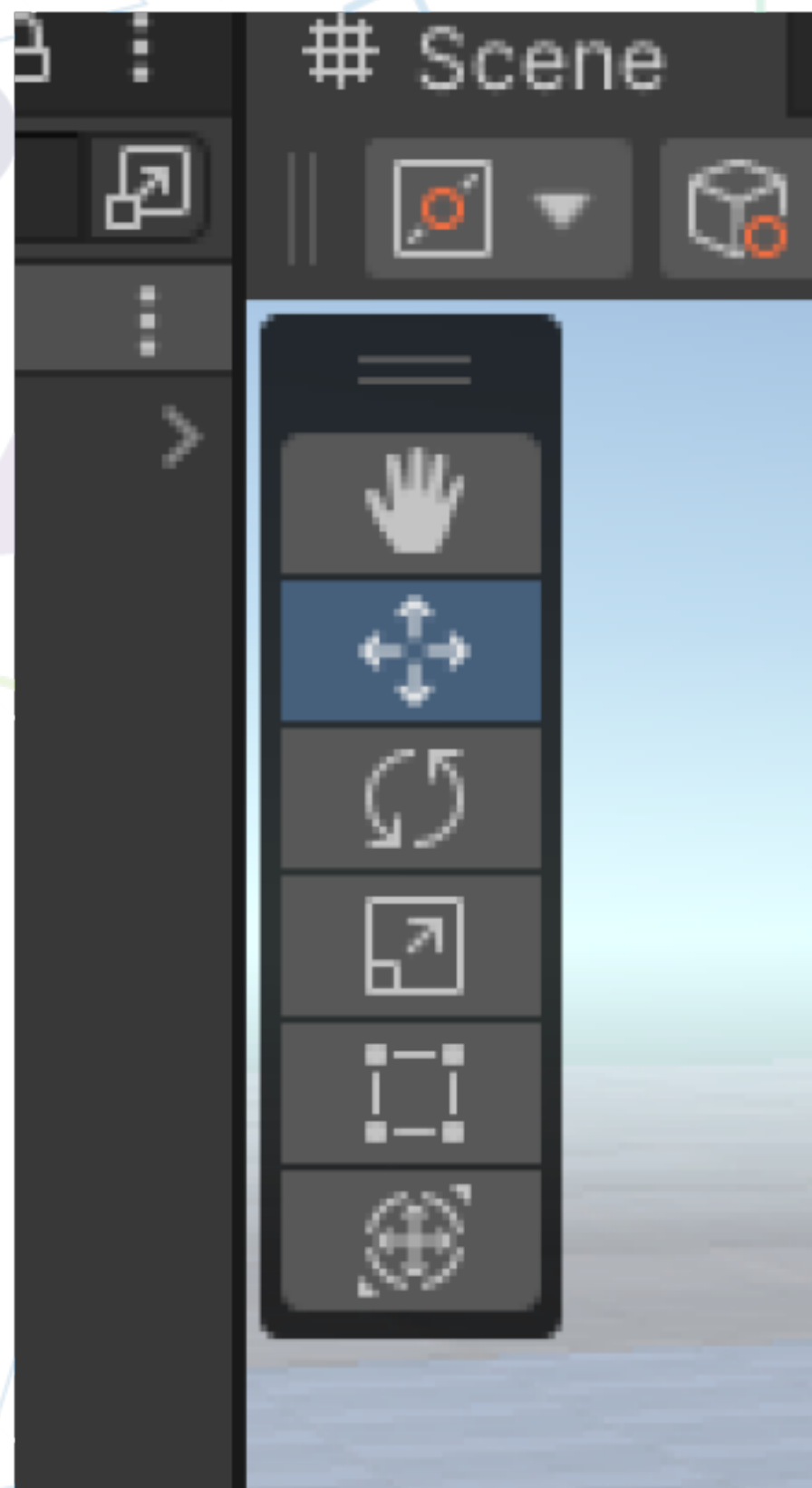
ОКРУЖЕНИЕ

- ✓ Слева располагается иерархия игровых объектов
- ✓ Посередине располагается сцена
- ✓ Справа располагается инспектор
- ✓ Снизу располагается окно ошибок, компиляции и проводник проекта
- ✓ Окна можно передвигать и настраивать как удобно

СЦЕНА

- ✓ В этом режиме размещаются игровые объекты
- ✓ Можно менять размеры объектов, скрывать
- ✓ Задавать глобальное и локальное освещение

ПАНЕЛЬ ИНСТРУМЕНТОВ



Панель инструментов сцены и игрового объекта

ПАНЕЛЬ ИНСТРУМЕНТОВ

- ✓ **Передвигать, вращать и увеличивать объекты**
- ✓ **Передвигаться по сцене**
- ✓ **Настройка компонентов игровых объектов**
- ✓ **Добавление и настройка скриптов**

ПРАКТИЧЕСКОЕ ЗАДАНИЕ

- Добавить на сцену 3D куб**
- Переместить и настроить размер**
- Добавить компонент Rigidbody**
- Запустить игру и наблюдать за поведением куба**

ПОДВЕДЕНИЕ ИТОГОВ

- ✓ Разбор частых ошибок при настройке проекта**
- ✓ Выставление оценок**
- ✓ Ответы на вопрос**



СПАСИБО ЗА ВНИМАНИЕ!