

## Mvx2Unity LuminOS (Magic Leap) Extension

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# Chapter 1

## Mantis Vision: Mvx2Unity\_lum\_ext

An extension of Mvx2Unity plugin providing support for processing Mvx2 volumetric content on LuminOS (Magic Leap) devices

### Extension Description

The extension introduces native libraries and other supplementary material for deploying Mvx2 processing pipelines on LuminOS (Magic Leap) devices.

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### Supported Platforms

Currently the extension works on these platforms:

- LuminOS.



## Chapter 2

# Main Scripts

None





## Chapter 3

# Project Setup

Following are necessary or recommended settings of projects that use the extension:

### MagicLeap.unitypackage

- sample scene and the scripts it uses heavily depend on scripts from original Magic Leap unity package
- the original package must be imported to the project, the package usually resides at
  - `~/MagicLeap/tools/unity/<version>/MagicLeap.unitypackage`
- the package can be imported via *Assets/Import Package/Custom Package...*

### Magic Leap Privileges

- not necessary for basic visualization of Mvx2 content in a Magic Leap scene
- required for the sample scene, which supports manipulation with Mvx2 object using a Magic Leap Control
  - `ControllerPose` - for access to Control features
  - `WorldReconstruction` - for real world reconstruction
- found at *Project Settings -> MagicLeap/Manifest Settings -> Autogrant*

### Magic Leap Plug-in Provider

- **Initialize XR on Startup** must be enabled
- **Magic Leap** as `Plug-in Provider` must be enabled
- found at *Project Settings -> Project/XR Plug-in Management -> Lumin settings*



## Chapter 4

# Release Notes

### 3.0.6.0

#### Extension

- **3.0.6.0\_E1** | versioning scheme extended to `Level1.Level2.Level3.LevelE`
  - `Level1.Level2.Level3` part indicates version of the core Mvx2Unity package, the extension is based on
- **3.0.6.0\_E2** | introduced standalone version file for the extension:
  - `Assets/Plugins/Mvx2/version_lum_ext.txt`
- **3.0.6.0\_E3** | updated for Magic Leap SDK 0.24.1
- **3.0.6.0\_E4** | added a sample scene with a special setup for showcasing Mvx2 content playback using Magic Leap (see [Sample Scenes](#))
  - `Assets/Plugins/Mvx2/Scenes/Mvx2MagicLeapSample.unity`

#### Documentation

- **3.0.6.0\_D1** | introduced standalone documentation files independent from the core Mvx2Unity plugin
  - new documentation files reside in `Assets/Plugins/Mvx2/doc` folder
- **3.0.6.0\_D2** | added [Project Setup](#) section

### 3.1.0.0

#### Extension

- **3.1.0.0\_E1** | updated for the 3.1.0 version of the core Mvx2Unity package



## Chapter 5

# Sample Scenes

### Mvx2MagicLeapSample

Demonstrates a basic file data stream rendered in real-world space using Magic Leap. The scene also supports simple manipulation of Mvx2 content using a Magic Leap Control:

- `Trigger` button - places the Mvx2 content at the collision point between ray cast from the Control and a plane being hit,
- `Touchpad Swipe` (horizontal) gesture - scales the Mvx2 content,
- `Touchpad Radial Scroll` gesture - rotates the Mvx2 content around its vertical axis.

The scene uses multiple new scripts to support object manipulation, most of which reside at

- `/Assets/Plugins/Mvx2/Scripts/MagicLeap,`

and additional assets residing at

- `/Assets/Plugins/Mvx2/Materials/MagicLeap,`
- `/Assets/Plugins/Mvx2/Shaders/MagicLeap,`
- `/Assets/Plugins/Mvx2/Meshes/MagicLeap.`

Most of the extra files are taken as-is, or with minor modifications, from original Magic Leap sample package.

