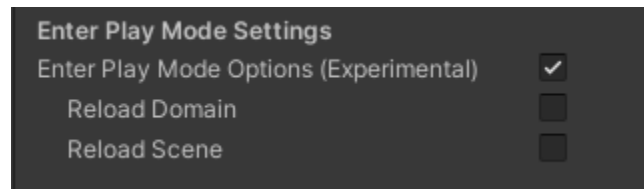


# Installation

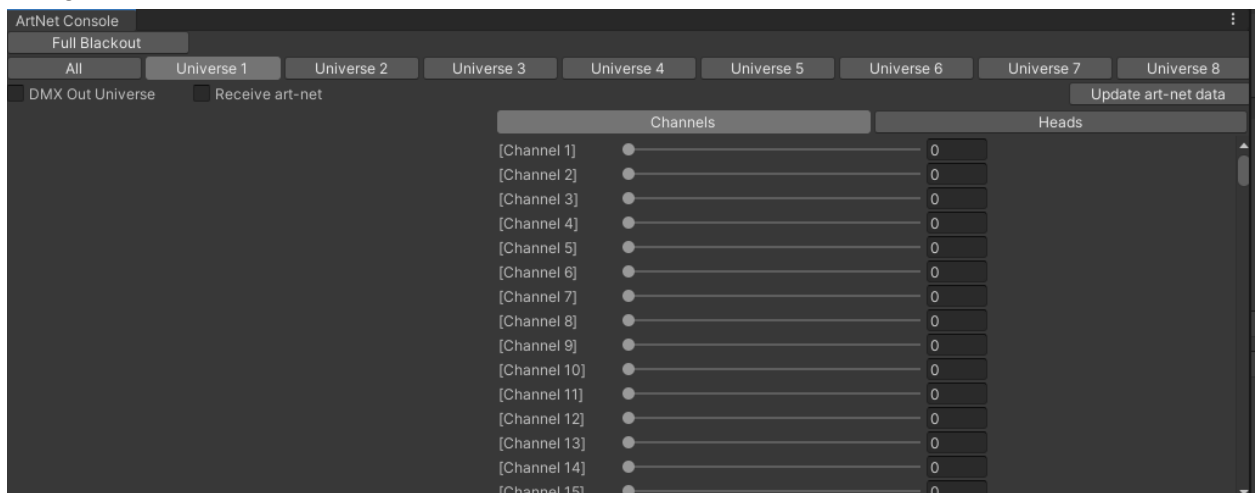
1. Download the package from <https://github.com/igolinin/DMXtools/blob/main/DMXtools/DMXtools.unitypackage>
2. Open Unity HDRP project ( or create a new one).
3. Select **Menu/Assets/Import Package/Custom Package** and browse to DMXtools.unitypackage. Click "Import".
4. Navigate to **Menu/Edit/Project Settings/Player** and set
  - a. Api Compatibility Level: .Net 4.x,
5. Navigate to **Menu/Edit/Project Settings/Editor** and set
  - a. Enter Play Mode Settings: true
  - b. Reload Domain: false
  - c. Reload Scene: false



## Operations

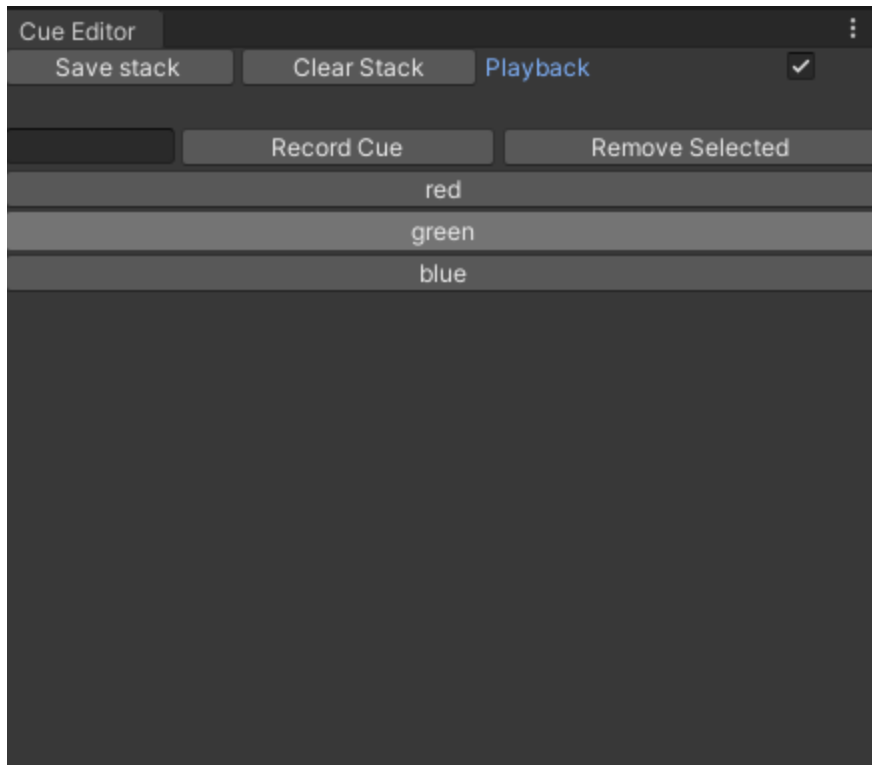
!!! In case of any errors which might come after transitions between play and edit mode please, use the "Find Heads" button. It fixes the connections and rebuilds data objects if missing>

1. Navigate to **Menu/Window/ArtNet/Console** this will open console window

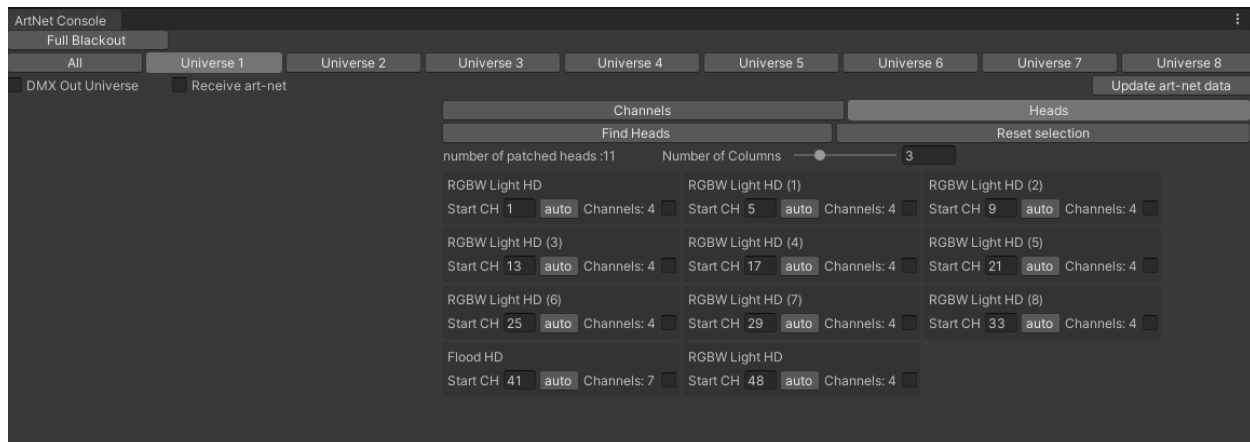


2. User can select one of 8 built-in art-net universes or choose all(heads only)

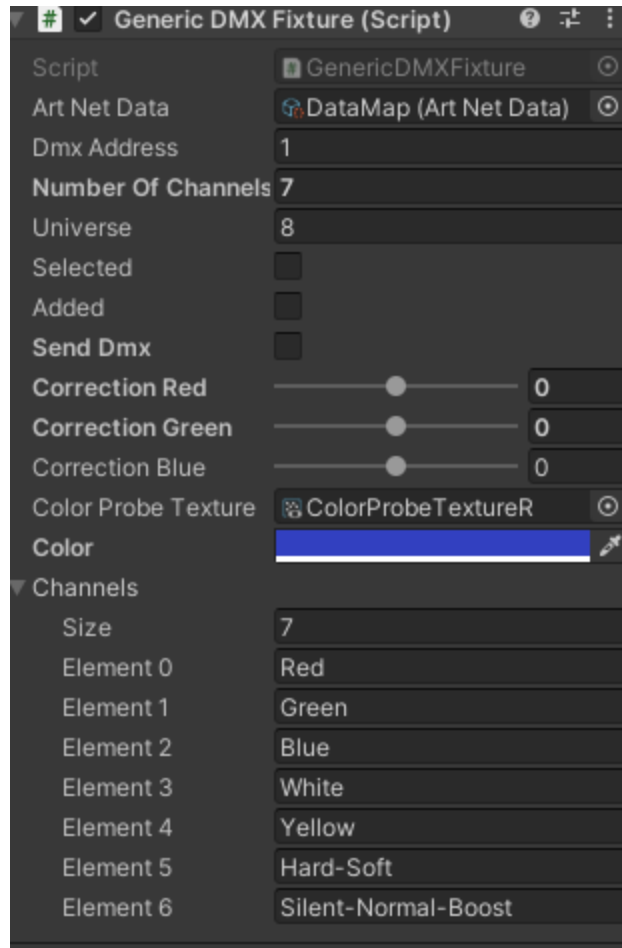
3. The selected universe can be marked as “DMX out universe” to send data of this universe to the real DMX fixtures connected via DMX usb dongle(only Enntec usb pro MKii tested, but should also work with open DMX dongle as well).
  - a. When universe is enabled as “DMX out universe”, option “Serial DMX” becomes visible.
  - b. USB DMX device must be connected to the PC before “serial DMX” is enabled.
  - c. Only one physical DMX universe is supported.
4. To get familiar with systems features please open demo scene “Playground”
5. Number of virtual DMX fixtures are already placed in the scene. By selecting the universe and choosing the heads view user can
  - a. “Find heads”, which detects all the universe’s DMX fixtures that are present in the scene. The same button can be used in case of the error which might occur when exiting play mode.
  - b. “Reset selection” resets the selection of the heads.
6. When one or more heads are selected, the side panel displays sliders for the fixture’s common attributes.
7. Each universe including DMX out universe can be set to “receive ArtNet” in this case art-net data is received from the external art-net controller. This feature only works real time in the play mode, but pressing “Update art-net data” can update virtual fixtures output after the latest received art-net data while in edit mode.
8. Cue - the snapshot of all the DMX data values for all universes can be saved with a basic cue editor.
9. Navigate to **Menu/Window/ArtNet/Cue Editor**.



10. To save the cue simply enter the cue name and click the "Record Cue" button.
11. To remove the cue click "Remove Selected"
12. To save the entire cue stack click "Save Stack". The stack is saved on a per scene basis.
13. To play back the cues enable the "Playback" option. It is recommended to reset selection and black out on the console before beginning the playback.
14. To add more fixtures to the scene drag and drop prefabs from Assets/Prefabs/Lights/HDRP.
  - a. Set universe and address numbers in the inspector.
  - b. Set address number in console.
  - c. Click 'auto' to set the first available(not used) DMX address.
  - d. Press "Find heads" if any errors.



15. To control practical DMX fixtures via USB dongle, the placeholder object must be placed in the scene. You can find prefabs of these objects in Assets/Prefabs/Lights/Practical.
  - a. Drag and drop GenericDMXFixture to the scene
  - b. Chose number of channels in Channels/Size
  - c. List all the channels attribute names under "Element1, ... Element N"
  - d. Select Universe and DMX address.
  - e. Select color probe render texture if you want this fixture to follow the color of the probe.
  - f. Send DMX must be enabled to control the fixture by probe's values.
  - g. Move sliders up and down to make color correction.
    - i. You can add or subtract 0-255 units to/from any color component.  
Clamped result will still be within DMX valid values(0-255)



## Color probe(experimental).

21. To place the color probe in the scene drag and drop ColorProbeSet prefab from Assets/Prefabs/Tools/ColorProbSet in the scene it will position itself in front of the camera. Offset could be changed in the inspector.
22. Please exclude the TransparentFX layer from the culling mask of your Main Camera to make the color probe invisible.

