

MHCP Mentors

Get Started with Noesis Studio December 2025

Shards632

Typescript Wrangler

MKE_TheGuru

Noesis Shaman



Mentor Workshop important info:



This session is recorded—the session will be posted on YouTube later.



Raise your hand—use the Zoom “Raise your hand” function to ask a question (or put it in the chat).



Mute yourself—keep muted unless you are asking a question.



Keep the conversation going! Post your work or questions in the forum.



Questions at designated times—save most questions for the Q&A portions.



Be active in the chat—share relevant insights and help answer others’ questions when possible.



Use the chat for technical issues—report technical problems in the chat, not verbally.



Fill out the feedback survey—your input helps us improve future workshops.



Tag me in the appropriate channels for feedback. Please don’t DM me. (I won’t answer.)

Callouts

Post. Refine. Repeat.

Social Media Strategies & Tactics for Meta Horizon Creators

Monday December 15th, 11am PST, 2pm EST

Scout House

Your Brand and World Building Blueprint

Tuesday December 16th, 11am PST, 2pm EST

Meta.Jesus

Holiday Fashion Show

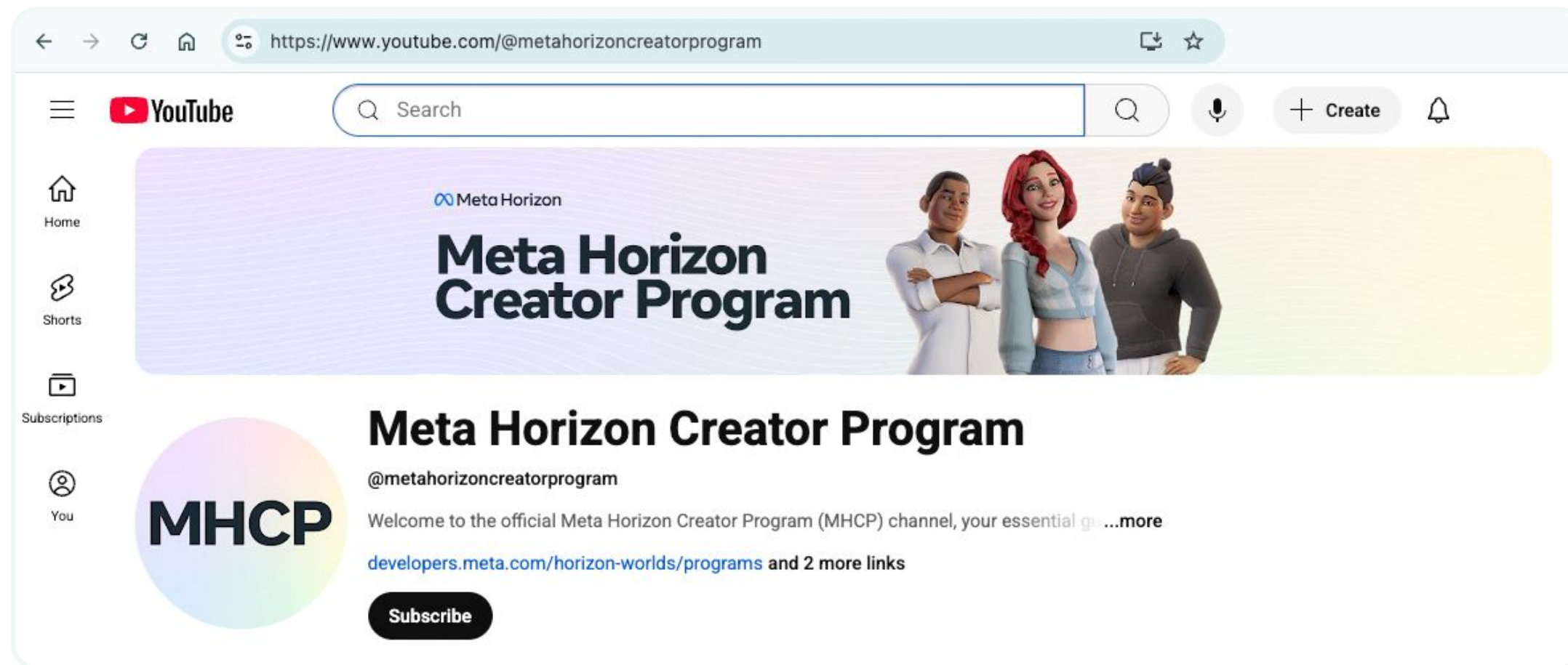
Wednesday December 17th, 11am PST, 2pm EST

MKE_TheGuru & SpaceGlitterUnicorn

Your World is Published! What's Next?

Thursday December 18th, 11am PST, 2pm EST

Meta.Jesus









<https://www.youtube.com/@metahorizoncreatorprogram>

 **YouTube**
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Skills Matrix alignment

Design 	Project Management	Scripting 	Art 	Operations
Mechanics  The main interactions, rules, procedures that a player uses / interacts with (that are fun / delightful / useful) via items, interactions, UI, etc.	Product Management The frameworks for turning ideas into practical, executable projects with clear goals, timelines, and deliverables	Programming  The skills needed to write and manage (3D content) codebases.	Assets The design and creation of static meshes for use as world environments or items / props / wearables / characters (including meshes and textures).	Marketing The tools for acquiring and managing an audience.
Core Loop The creation of meaning / accomplishment / feedback when repeatedly using the (main) mechanics.	Content Development The processes to ensure an idea is clear and “proven” before moving to the long stage of polished script and art creation.	Meta Horizon Systems The use of Meta Horizon’s specific technical features and capabilities.	Dynamics  The creation and application of elements that bring life to static art (such as animations, visual effects, lighting, sound effects, and music).	Business Management The administration of team / financial management, including payments, legal affairs, and related human resources functions (including managing partnerships and talent).
Progression The frameworks that allow players to accrue long-term value and retain in a world (achievements, identify, items, etc.).				

Agenda

Noesis Studio Setup

Common Elements

Data Bindings and Data Sets

Importing Asset into Horizon Worlds

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 **Studio Download (0.1.258-beta)**

<https://www.noesisengine.com/forums/viewtopic.php?t=3610>

 **Download Noesis Studio Beta**

 [Download Noesis Studio Beta for Unity](#)

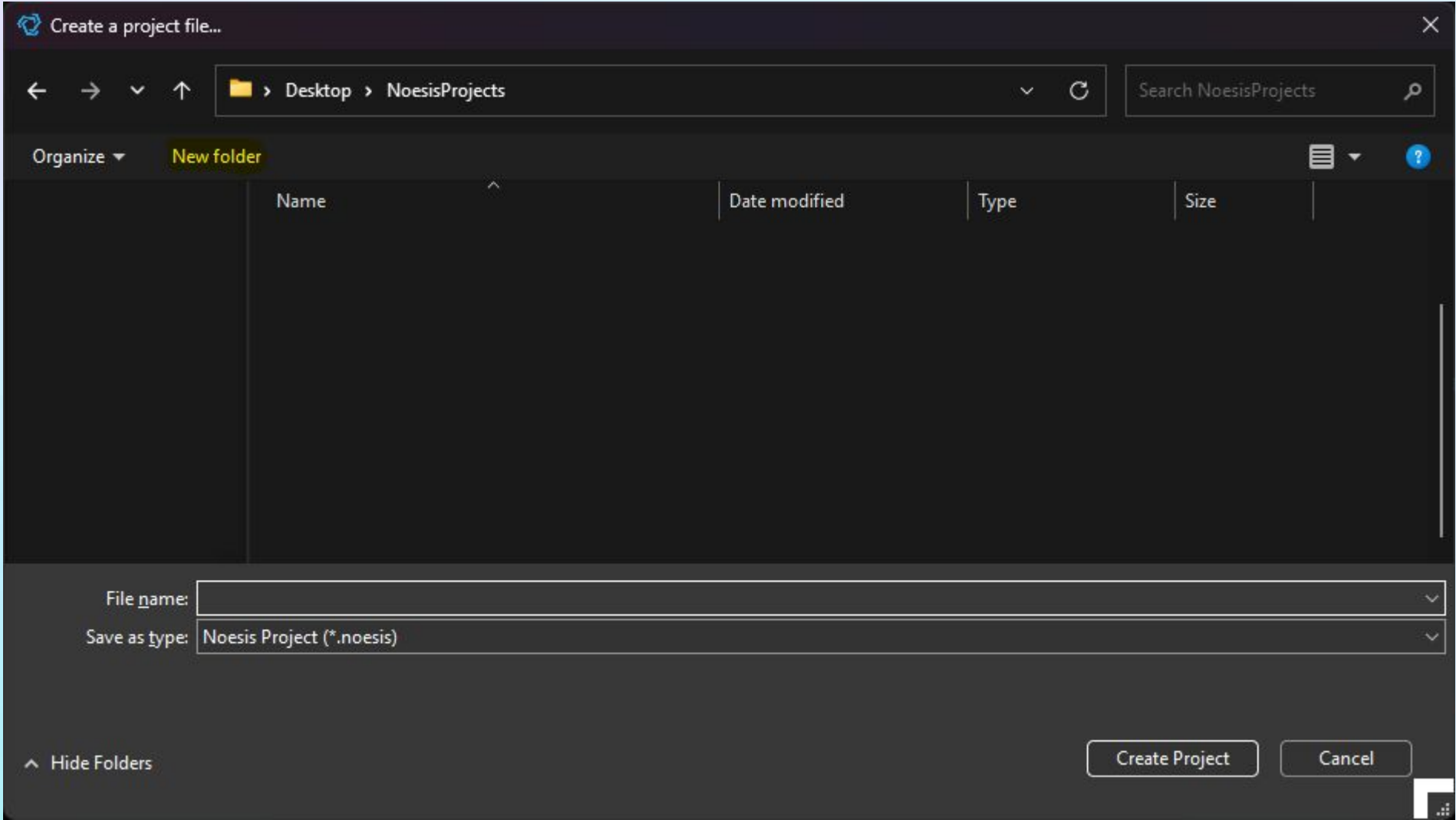
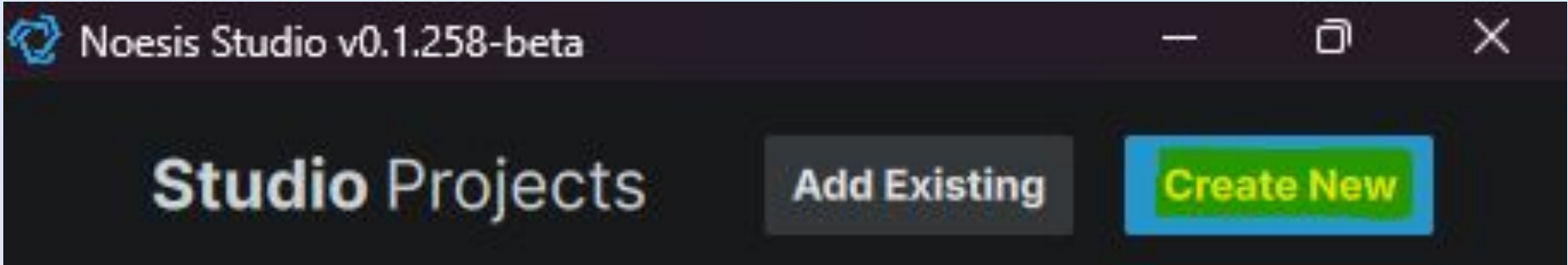
 [Download Noesis Studio Beta for Unreal](#)

 [Studio Documentation Thread](#)

Noesis Studio Setup

Installation

Project Creation



Common Elements

DEMO

- Grid
 - Most common element, useful for arranging elements neatly
- Uniform Grid
 - Similar to Grid but split into even rows/columns
 - Arranged elements automatically
- Viewbox
 - An element that can scale and stretch the children to fill available space
- Button
 - The classic pressable we all know and love
- Image
 - One of many ways of displaying images in Noesis
- Item Control
 - Utilizes templates and is powered by collections of objects

Data Bindings and Data Sets

DEMO

- Data Structure defines what properties are available within the data context
- Data Structures can be used as a type of property!
 - This kind of nested structure can quickly become confusing
- Data Set defines the values of the properties
 - Must assign a data set to the root to be able to read its properties via bindings
- Properties can be collections of data types/structures

Importing Asset into Horizon Worlds

Files

DEMO

- The *whole* Noesis project directory is zipped up into a package and imported as a unit
 - Includes both your layout xaml files, as well as any static images
- Choose a destination folder for your asset
- Click Add New -> Noesis Project
- Navigate to the Noesis project Directory
 - Select the `<project>.noesis` file
 - e.g.
 - `\Users\live\OneDrive\Documents\Noesis\Simple\simple.noesis`
- Click Import

Just drag the Noesis asset out of the Asset library into the world to create a Noesis Gizmo with that asset attached!

- You may need to set the `Root XAML` in the properties panel, and perhaps adjust the width/height and scale, as appropriate.

Importing Asset into Horizon Worlds

Files

DEMO

Using noesis2hzw Utility

Install bun

Install noesis2hzw

Run noesis2hzw

Demo

- Install bun
 - <https://bun.com/docs/installation#windows>
 - Open a command prompt
 - `powershell -c "irm bun.sh/install.ps1|iex"`
- Edit PATH to include `~\.bun\bin` directory
 - Hit Windows key
 - Search for `env`
 - Pick "Edit the system environment variables"
 - Click on "Environment Variables..." button
 - In the "User Variables" section, double-click on `Path` to open dialog
 - In Edit environment variable dialog, click New
 - Enter `%USERPROFILE%\.bun\bin`
 - Click OK -> OK-> OK to close out of all dialogs

Using noesis2hzw Utility

Install bun

Install noesis2hzw

Run noesis2hzw

Demo

- Install `noesis2hzw`
 - Open a command prompt
 - `bun install -g noesis2hzw`

- Test installation
 - In a command prompt
 - `noesis2hzw --help`

- Output

Usage: `noesis2ts [options] <noesis_project_path> <output_directory> [set_name]`

Generate TypeScript files from Noesis project data

Arguments:

<code>noesis_project_path</code>	Path to the Noesis project root directory (containing the <code>.noesis/data</code> folder)
<code>output_directory</code>	Path to the output directory for generated TypeScript files
<code>set_name</code>	Name of the dataset set to generate (optional, all if omitted)

Options:

<code>-V, --version</code>	output the version number
<code>-v, --verbose</code>	Enable verbose logging
<code>-t, --types-only</code>	Only generate TypeScript type definitions
<code>-i, --indent-level <number></code>	Number of spaces for indentation (default: "2")
<code>-h, --help</code>	display help for command

Using noesis2hzw Utility

Install bun

Install noesis2hzw

Run noesis2hzw

Demo

- Locate the Noesis project directory
 - contains the `<project>.noesis` file, same directory as used for Asset import
 - e.g.
 - `\Users\live\OneDrive\Documents\Noesis\Simple`
- Locate the Horizon Worlds scripts directory
 - Where your typescript files are located
 - Most easily found by clicking on one of your `.ts` files in VSCode and clicking Copy Path, then removing `Script.ts`
 - e.g.
 - `\Users\live\AppData\LocalLow\Meta\Horizon\Worlds\10123456789012\scripts`
- Run noesis2hzw to convert Noesis Studio files to TypeScript
 - `noesis2hzw -v <noesis-project-path> <world-script-path>`
 - You can omit the `-v` if you don't want it to print what it's doing
 - You can use `-t` to just make the [NoesisTypes.ts](#) file and no data sets
 - You can use `-i <num>` to control the indentation level (default is 2 spaces)
 - You can specify an optional `<set-name>` at the end to limit to one data set

Using noesis2hzw Utility

Install bun

Install noesis2hzw

Run noesis2hzw

Demo

Shared Execution Mode

What is it?

Important Notes

- A new execution mode *in addition* to our existing modes of `default` and `local`.
 - Automatically selected when clicking New Noesis UI script from Attach Script on a NoesisGizmo
 - Can also be set via "Execution Mode" in the Scripts menu
- Scripts run *everywhere!*
 - A copy runs on the server
 - **NO** UI is drawn on the server, ever.
 - A copy runs on *every* player headset *simultaneously*
 - No longer a need to manage a pool of gizmos or per-player Bindings
 - The LocalPlayer is *always* the player the UI is being drawn for or is the player generating click events in the UI.
- If you want to display some new information to every player, you will need to send a NetworkEvent to the scripts running on every player

Shared Execution Mode

What is it?

Important Notes

- Use the server side of the Shared script to listen for server-side only events
 - OnPlayerEnterWorld
 - OnItemPurchaseComplete
 - etc
- If you want to send an event from the server to just one player, use Player object routing, or use the players argument on sendNetworkEvent to send the event to just one player running the shared script.
- If you want to display some changed information in the Noesis UI for every player, you will need to send a NetworkEvent to the scripts running on every player.

Noesis in Typescript

Wiring `dataContext`

Setting per-Player
Visibility

DEMO

- If your UI has dynamic elements (buttons, changing text/images, lists), you will need to wire the `dataContext`
 - Should only be wired on the client side execution of the Shared mode script
- `dataContext` is just a typescript Object with nested fields.
- You can change values in the `dataContext` object and changes will reflect in the next rendered frame of the Noesis Gizmo
 - Do not reassign the *whole* `dataContext` unless you are changing everything, as it will cause unnecessary re-rendering. Just change what's changing.
- Changing images is currently tricky/broken
 - `ImageSource.fromTextureAsset()` values only display for collaborators on the Texture Asset
 - Using a path to an image inside the Noesis Asset bundle requires dynamic prefixing with "`<asset-id>_<asset-version-id>/`"
 - Can use Setters in Noesis Studio to make "flipbook" images

Noesis in Typescript

Wiring dataContext

Setting per-Player
Visibility

DEMO

- If you only want a subset of players to see a UI (e.g. pop up a HUD on button press), you need to manage visibility in the local instance of the script running on each player.
 - `Noesis.setLocalEntityVisibility()`
 - controls whether the `LocalPlayer` can see the `NoesisGizmo`
- You can also use global visibility to hide the gizmo from all players, or use the `Entity.setVisibilityForPlayers()` to centrally manage a list of players who can see a UI.

Noesis in Typescript

Wiring dataContext

Setting per-Player
Visibility

DEMO

Useful Links

Learn Site

Noesis Site

Mentors

- Introduction to NoesisGizmo
 - <https://developers.meta.com/horizon-worlds/learn/documentation/desktop-editor/noesis-ui/create-a-noesis-ui-panel>
- Configuring Noesis
 - <https://developers.meta.com/horizon-worlds/learn/documentation/desktop-editor/noesis-ui/noesis-ui-configurations>
- Noesis Font Limitations
 - <https://developers.meta.com/horizon-worlds/learn/documentation/desktop-editor/noesis-ui/noesis-ui-fonts-usage>
- Shared-Mode Scripts for Noesis
 - <https://developers.meta.com/horizon-worlds/learn/documentation/desktop-editor/noesis-ui/shared-mode-noesis-scripts>

Useful Links

Learn Site

Noesis Site

Mentors

- Noesis Studio Installer
 - <https://www.noesisengine.com/forums/viewtopic.php?t=3610>
 - Check frequently, because there is no auto update system right now!
- Noesis Studio Docs
 - https://www.noesisengine.com/docs/4.0/Gui.Studio.Documentation_Index.html
 - An as-of-yet incomplete documentation site
- Noesis Studio Videos
 - <https://www.youtube.com/@NoesisTechnologies>
- Noesis Studio Forums
 - <https://www.noesisengine.com/forums/viewforum.php?f=15>

Useful Links

Learn Site

Noesis Site

Mentors

- GausRoth's GitHub Examples
 - <https://github.com/Gausroth/Noesis-in-Horizon-Worlds>
- GausRoth's Youtube Noesis Tutorials
 - <https://www.youtube.com/playlist?list=PLN3Kn6lJtZFfpa3VSUsdKQ3sS1uu4pdMO>

Create a Better UI Experience!

Q&A

Thank You!

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