UI Assist VAM Plugin User Guide
by JayJayWon

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1 What is UI Assist

UI Assist (UIA) is a VAM plugin intended to enhance the usability of VAM – primarily targeted at easier and rapid content consumption. It provides an alternative configurable User Interface (UI) to access common VAM features and additional extra functions. By default (in VR mode) the new UI can be activated from a clock on the user's wrist which reveals an array of buttons. Currently users principally interact with content using the very extensive and complex VAM UI screens and menus. Whilst comprehensive, there are a lot of options, history and complexities that can make navigation slow. For example, just changing a clothing preset can require the following sequence of actions:

1. Open the VAM UI
2. Enter Edit Mode
3. Select the control node of a Person atom
4. Select the Clothing Preset Tab
5. Click 'Select Existing…'
6. Navigate and find the Clothing Preset you want to load and select it
7. Wait for the Clothing to Load
8. Switch back to Play Mode
9. Close the VAM UI

Alternatively, some content creators produce scene specific User Interfaces (e.g. UIButtons) to perform discrete specific tasks. These are generally limited to only work for that specific scene and cannot easily be transferred to other scenes.

There are other plugins which provide alternate and accessible UIs – but these are designed to enable only the specific functions of the plugin.

UI Assist allows the user to define the function of each button on a custom UI and then reuse that setup in any scene. Because UIAssist is a Session plugin it automatically persists between scene loads. The UI is accessible via a watch (i.e. clock) on the user's VR wrist that can be clicked to reveal a menu of buttons. The action for each button can be targeted at the Atom last looked at by the user. For example, once setup, loading a clothing preset can be as simple as:

1. Look at Person atom
2. Glance at Watch UI
3. Click clothing preset load button on Watch UI

UI Assist has been built to work with VAM v1.19.2 (and above) and has not been tested with any previous versions of VAM.

2 Free and Patron Version Differences

JayJayWon has produced many free plugins for the VAM community (and intends to continue doing so in the future) to reflect the amount of work in creating UIAssist there are two variants of UI Assist:

1. Free version containing most core functions and features
2. Patron version containing additional advanced functions only available to JayJayWon patrons.

A list of the current differences can be seen below:

Feature	Initial Version	Last Update	Free Version	Patrons Version	Notes
Scene Animation button options	1.12		✔	✔	Button functions to control scene animation playback and record
Plugin setting button options	1.12		✔	✔	Button functions to set or toggle the configurable options of any plugin
Sync Wrist UI and VR Hands visibility	1.12		✔	✔	Option to hide the Wrist UI when ever the VR hands are hidden
Reposition detached static UI in VR	1.11		✔	✔	When the Wrist UI is detached using the Pin button, the UI can now be repositioned by drag and dropping the pin button. When detached the UI now always faces the user.
Force Play and Edit Mode with VAM UI opening	1.11		✔	✔	Option to automatically switch to VAM Play Mode when the VAM UI is closed and Edit Mode when the VAM UI is opened.
Force VSync on Desktop and disable for VR	1.11		✔	✔	Option to force VSync to On whenever VAM is started in Desktop and VSync to Off when playing in VR.
Toggle Show VR Hands	1.11		✔	✔	Button action to toggle the state of the Show VR Hands setting.
Move Atom (VR Only) button	1.10		✔	✔	Targeted Atoms will be moved by mirroring a VR Controller position and rotation. Click "grab" button to end move or hold "grab" button to pause movement.
Teleport Atom	1.10		✔	✔	Teleport an Atom to a specific location. Locations can be relative to another atom/node or the VR head or hands.
Selected Atom as Button targets	1.10		✔	✔	Additional options for most button types to allow the button action to be targeted at the last VAM selected atom.
Preset Merge options	1.9		✔	✔	Load Preset button actions now also Support the Merge option introduced in VAM v1.20
Legacy Preset buttons	1.9		✔	✔	Button actions to Load and Save Legacy presets
Detach Control Nodes	1.9		✔	✔	Button action to Detach Control Node as introduced in v1.20
Active Clothing Editor	1.8	1.12		✔	Rapidly shows what clothing items are currently active on a person and allows you to switch them on or off and to toggle the Sim Undress state
Hide, Delete and Select Atoms	1.8		✔	✔	Button types to Hide, Delete and Select Atoms
Toggle Atom Collision	1.8		✔	✔	Button type to toggle Atom collision on and off
Performance Options buttons	1.8	1.10	✔	✔	Button types to toggle Soft Body Physics, Desktop VSync and Performance Monitor
Quick Launch Bar	1.7			✔	Optional row of buttons that are available on all screens. Similar to iOS dock.

Feature	Initial Version	Last Update	Free Version	Patrons Version	Notes
Button Edit mode	1.7	1.9	✔	✔	Activate Edit Mode by long press on main Watch button. In Edit mode, rearrange button icons by drag and drop. Clicking a button in Edit Mode will select it in the plugin UI for modification.
Re-order screens	1.7		✔	✔	Change the order of button screens.
Change Hair colors	1.6		✔	✔	Rapid switching of hair color with a single button press.
Integration with chokaphi DecalMaker plugin	1.6	1.9	✔	✔	Trigger merging of decals from a UIA button.
New Micro and Mini button sizes	1.6		✔	✔	Options for smaller button sizes.
Shortcut filters for Load Scene operation	1.6		✔	✔	When loading scenes with UIA, the shortcuts can be filtered to only show scenes from VARs within a specified folder (under AddonPackages). This allows better organisation of scenes.
Increased buttons per screen	1.6		✘	✔	For Micro and Mini buttons there are up to 91 buttons per screen and up to 42 Small buttons per screen.
Skin presets – load Decal only option	1.6	1.12	✘	✔	Options to only apply the decals from a Skin Preset
12-hour clock display option	1.6		✘	✔	Option for wrist watch to display in 12 hour format.
Gaze Assisted Select	1.5		✔	✔	Option to select from a list of Atoms and nodes that auto sorted to show selections closes to the users gaze direction first.
Hide 'Off' control nodes	1.5	1.9	✔	✔	Hide and disable the red control nodes of person atoms - improves accuracy of selecting 'on' nodes with mouse or VR pointer.
Load Scene / Merge Scene	1.5		✔	✔	Buttons can now be configured to Load or Merge Load a scene
Load UIA Config	1.5	1.10	✔	✔	Buttons can now be setup to Load another UI Assist button configuration.
Atom Spawning	1.4	1.10	✔	✔	Atoms of specified type spawned at custom location and with configurable presets and plugins. Location can be relative to another atom/node or the VR head or hands.
Random and selectable Preset options	1.4		✘	✔	For all preset functions, buttons can now optionally randomly select a preset from a folder or display the file selection dialog.
Plugin Actions: initialise parameters	1.3		✔	✔	When triggering the actions of other plugins, the parameters of that plugin can also be set. For example, you can choose an animation and speed before playing it in acidbubbles timeline plugin.

Feature	Initial Version	Last Update	Free Version	Patrons Version	Notes
Freeze motion/sound	1.3		✔	✔	The VAM freeze motion/sound toggle can now be activated from a UI Assist button.
Edit/Play mode toggle	1.3		✔	✔	Toggle between VAM Edit and Play modes from a UIAssist button
Unload all plugins	1.3		✔	✔	UI Button to unload all plugins from a target atom.
Auto Heel Adjust	1.2	1.10	✔	✔	Automatically apply HeelAdjust settings to all people wearing heels (only requires Prestigitis plugin to create initial settings)
Auto raise people by heel height	1.2	1.10	✔	✔	Automatically raises and lowers people by the height of the heels being worn (as defined in the Prestigitis HeelAdjust settings).
Remove Clothing by Tag when Merging	1.2		✘	✔	Enhancement to the Clothing Merge feature that optionally allows clothing items by Tag (excluding Custom Tags) to be removed. Can be used to switch clothing of one type (e.g. shoes) with a single button press.
Reset Person Scale	1.2	1.5	✔	✔	Resets the scale of a person to the value when the scene was loaded.
Reset Person Appearance	1.2	1.5	✔	✔	Resets the look of a person to the appearance when the scene was loaded.
Hold Person Scale on Appearance load	1.2		✘	✔	Forces Appearance Preset loads (using UIA) to not change the scale of the person. Avoids rescaling person that can break animation alignment.
Gaze activated screens and buttons	1.1		✔	✔	Look at the UIAssist launch button to open menus and then gaze at a button and press Grab on controller to activate.
Pin UI to static position	1.1		✔	✔	Detach the UI from wrist and place in a static position using the pin button.
HUD option	1.1		✔	✔	Detach the UI from wrist and have a fixed HUD
Create multiple screens of buttons	1.0		Unlimited	Unlimited	
Maximum number of buttons per screen	1.0		9	25	
Select Target Atoms by Gazing	1.0		✔	✔	Simply gaze at a person atom and then press a single button on the Wrist UI to perform an action.
Select groups or individual atoms as Targets	1.0		✔	✔	Available groups are currently All Atoms, All Persons, All Females, All Males.
Apply Presets to Target Atom(s)	1.0		✔	✔	All .vap preset types under Custom\Atom (or packages) are supported (e.g. clothing, hair, appearance etc.)
Remove All Clothing from Target Atoms	1.0		✔	✔	Removes every worn clothing item with a single button press.

Feature	Initial Version	Last Update	Free Version	Patrons Version	Notes
Set Clothing Sim Undress and Sim Reset on All Clothing of Target Atom(s)	1.0		✓	✓	Allows the Sim settings of all currently active clothing atoms to be controlled together
Load Plugins to Target Atom(s)	1.0	1.2.1	1 plugin per button	Unlimited (in v1.2)	Plugins can be loaded to an Atom by gazing at the Atom and pressing a button.
Trigger Plugin Actions and toggle Bools	1.0		✓	✓	Trigger a specific plugin action if the plugin is loaded on the Target Atom(s)
Merge Clothing Presets	1.0	1.2	✗	✓	Combine clothing presets to mix and match groups of clothing items.
Remove Clothing Preset from Target Atoms	1.0		✗	✓	Only remove clothing items in a Clothing Preset. Allows partial undressing of multiple items.
Set Clothing Sim Undress and Sim Reset for Clothing Preset on Target Atoms	1.0		✗	✓	Allows selective control of Sim Reset and Undress for a subset of active clothing.
Set plugin initial data from saved values	1.0	1.2	✗	✓	Allow the configuration of a plugin to be captured and then reapplied on a single button press at the same time as loading a plugin.
Suppress Person scale changes	1.0		✗	✓	Prevents person scale changes when applying Appearance Presets (useful where scene animations assume a specific person scale)
Suppress Clothing Load	1.0	1.3	✗	✓	Prevents clothing change when applying Appearance Presets
Custom Screen Labels	1.0		✗	✓	A label for each screen of buttons can be set to appear on the wrist watch display.
Custom Button Skins	1.0	1.3	✗	✓	Button and font colors, font types, size and alignment, thumbnail images can be individually configured for each button.
~~Autoload UIAssist on VAM start~~	~~1.0~~	Removed in v1.9	✗	✗	~~A separate utility plugin UIASessionBooter attached to the default scene will auto load UI Assist and other session plugins.~~

Throughout this guide, the screenshots will be based on the Patron version of UIAssist and so may show options that are not available to UI Assist Free users.

3   How to install UI Assist

Both the free and patron versions of UIAssist can be downloaded from JayJayWon's Patreon website here:

https://www.patreon.com/JayJayWon

Depending on the version you are using you will need to download one of the following VAR Packages:

FREE VERSION	PATRON VERSION
JayJayWon.UIAssist(Free).4.var	JayJayWon.UIAssist(Patron).4.var

As subsequent versions of UIAssist are released the numeric digit in the var filenames will be incremented.

Place the downloaded .var file into the folder \AddonPackages under the main VAM program folder. Start VAM in either VR or desktop mode.
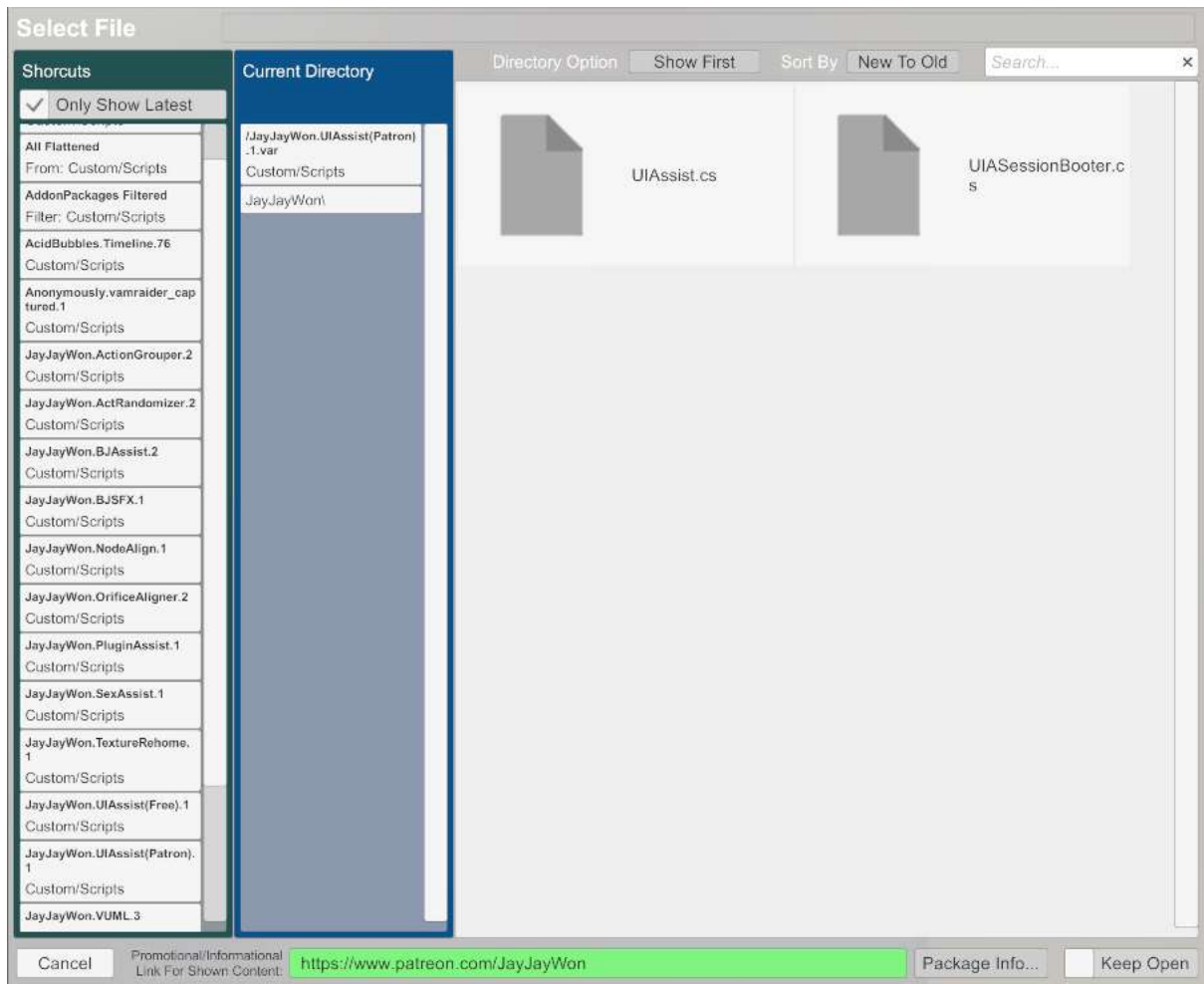
When VAM has started, navigate to the Session Plugin Loader screen:

Click add plugin and then Select File:

Using the Shortcuts navigation on the left panel select the UIAssist VAR Package which was just installed. Select the UIAssist.cs file (if you have the free version then that should be the only option in the package).

UI Assist should now be loaded. In VR mode a watch will appear on the left wrist of the user. In desktop mode a small button with the current time will appear in the bottom right corner of the screen.

4   How to use UI Assist

To start using UI Assist, click on the small clock face that appeared when first loading the UIAssist plugin. Three buttons with a blue text box above should now be displayed (these are the default set of buttons to help demonstrate the tool is working).

The three buttons from left to right have been pre-configured as follows:

1.   Remove all clothing from the last looked at Person Atom

2. Apply the VAM clothing preset ''VaM_Seductress_Sim'' to the last looked at Female Atom,
3. Apply the VAM appearance preset "Ren_Tara" to the last looked at Female Atom.

The blue box is called the Gaze Targets box and contains the current gaze target atoms that will be applied when a button with a Gaze target is pressed. The gaze targets are context specific so will only show the target types that relate to the buttons on the current UI Assist screen.

If a person atom is not already in your scene then add them using the standard VAM procedure. Now try looking at that person in the scene (or in Desktop mode, rotate the view so the person is in the centre of the screen). The gaze targets will update to reflect that the Person atom is now targeted.

Try pressing the three buttons and see the effect on the Person atom. Changing the person to a Male atom will demonstrate that the Gaze feature will not apply the clothing or appearance presets to a male target but the remove clothing will still work.

4.1   Switching VR Hands

By default in VR Mode, the Watch UI will appear on the left VR hand. This can be switched to the right hand by opening the Custom UI menu for the UI Assist Session plugin the plugin:


In the left panel there is a dropdown menu to switch between Left and Right hands:

It is possible to simultaneously load two UIAssist session plugins and have one configured for the left hand and the other for the right hand.
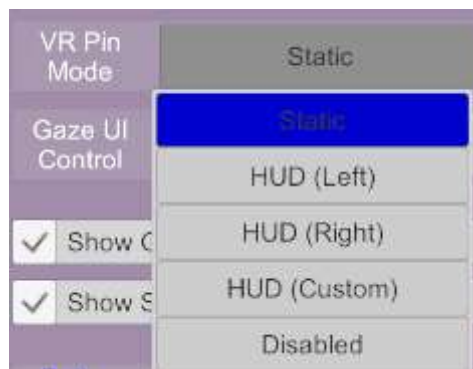
4.2   Gaze Open/Close Screens

When this option is activated, the UI Menus will open and close automatically as the user gazes at the UI Assist buttons.
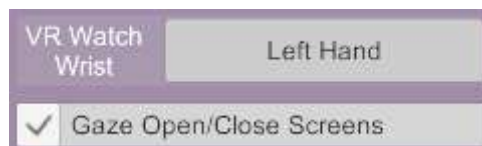
4.3   Static Pinned Mode

By selecting the Static VR Pin mode, the UI can be detached from the VR wrist position and will remain static in the VR space at the position and rotation it was detached:

To detach the UI, either:

1. Activate the X button to the left of the main UIAssist clock/launch button,
2. Double click the Select button (typically tied to A on an Index Controller). This allows for one handed detach from the wrist.

Whilst detached, the UI can be repositioned by:

1. Holding the trigger button whilst pointing the VR controller at the O button and moving the controller.

To reattach the UI to the wrist, either:

1. Activate the O button to the left of the main UIAssist clock/launch button
2. Double click the Select button (typically tied to A on an Index Controller). This allows for one handed re-attach to the wrist.
3. Move the VR hand that the UI was previously attached to into the vicinity of the watch/launch button of UIA.

4.4   HUD Pinned Mode

By selecting one of the HUD VR pin modes, the UIA interface can be tied as a head up display that remains in a fixed view position irrespective of the user's head rotation. There are three available HUD modes:

1. HUD (Left) – the UIA interface will be displayed left of the user's centre view
2. HUD (Right) - the UIA interface will be displayed left of the user's centre view
3. HUD (Custom) – the UIA interface will be displayed at a configurable offset from the user's centre view.
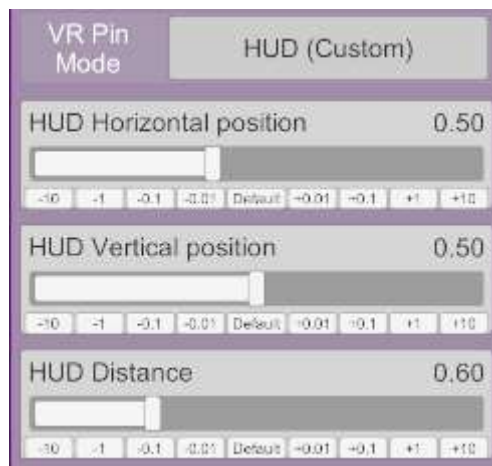
To move the UI from wrist to the HUD, either:

1. Activate the X button to the left of the main UIAssist clock/launch button,
2. Double click the Select button (typically tied to A on an Index Controller). This allows for one handed detach from the wrist.

To reattach the UI to the wrist, either:

1. Activate the O button to the left of the main UIAssist clock/launch button
2. Double click the Select button (typically tied to A on an Index Controller). This allows for one handed re-attach to the wrist.

4.5   Gaze UI Control

When this option is active, the UIA buttons can interacted with in VR by gazing at the buttons and triggering a button by pressing the Grab controller button (typically tied to the Trigger button on an Index Controller). Gaze UI Control can be disabled, active on the wrist only or active on the wrist and in static pinned mode:

When active, the buttons on UIAssist will be colored blue when the current gaze focus to indicate which button is selected. This color can be customised by Patron UIA users (see Section 6.11.8).

4.6   Quick Launch Bar (PATRON ONLY FEATURE)

In addition to having multiple screens of buttons, UI Assist has an option to activate a Quick Launch Bar that appears as a separate row (or two) of buttons below the main screens. The Quick Launch Bar behaves similarly to the iOS Dock.

Once activated it appear below the main screen buttons and is persistent across all screens:
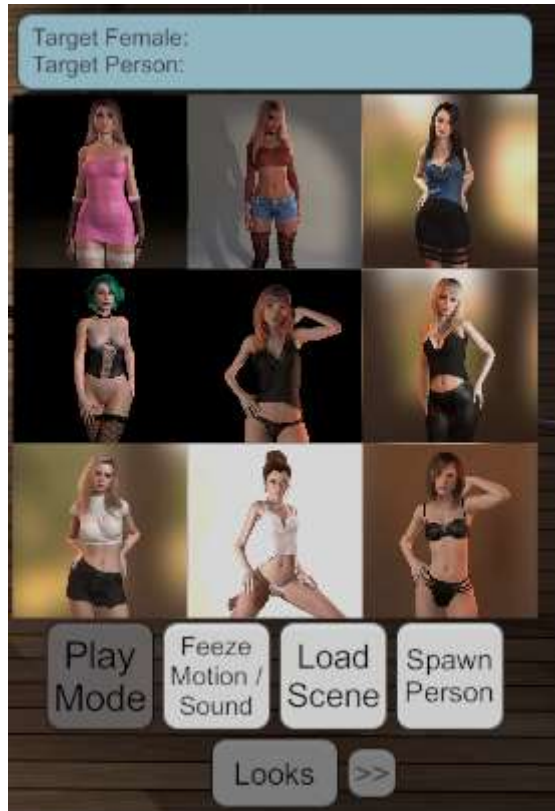
When activated, the Quick Launch Bar will appear in the list of Screens in the plugin UI and allows each button to be configured:

4.7   Hide Wrist UI with VR Hands Hide (NEW v1.12 FEATURE)

An option is available to automatically disable or hide the Wrist UI whenever the VR Hands are not shown:


When active, this option takes effect whenever the VR Hand (Left or Right) which the Wrist Watch UI is attached to is hidden. The "Show VR Hands" option is available on either the User Preferences tab under VR 2:

Or it can be quick toggled from the main VAM options bar using the hand icon:

4.8   UIA Edit Mode

UI Assist Edit mode can be activated by a long press on the main clock / watch button:
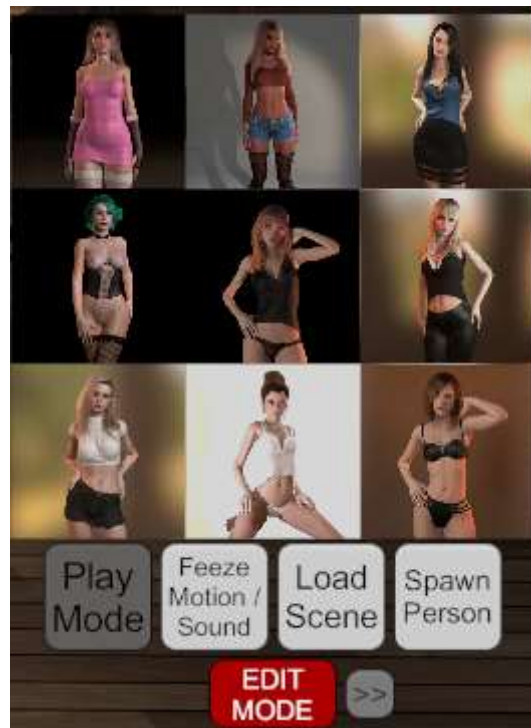
Once Edit Mode is activated, buttons can be dragged and dropped to re-arrange them within the wrist based Watch UI. Buttons can be dragged between the main button Screens and the Quick Launch Bar as long as there are Empty buttons available in the destination screen (this also allow buttons to be moved from one screen to another via the Quick Launch Bar). In Edit Mode, the normal action of buttons are not triggered - instead activating buttons on the Watch UI will select them in the plugin UI – to allow rapid modification of the action of that button.

Edit Mode is de-activated by a short button press on the "EDIT MODE" button.

5   Setting up UI Assist Screens

When UIAssist is first installed it is pre-configured with 3 buttons on a single screen. Additional screens can be added - each with multiple buttons (up to 91 buttons per screen (9x9) for Patron users and 9 buttons per screen (3x3) for free users).

UI Assist Screens are configured using the three controls at the top of the right panel

The number of buttons available on each screen can be changed by selecting the desired number of rows and columns for the screen layout:
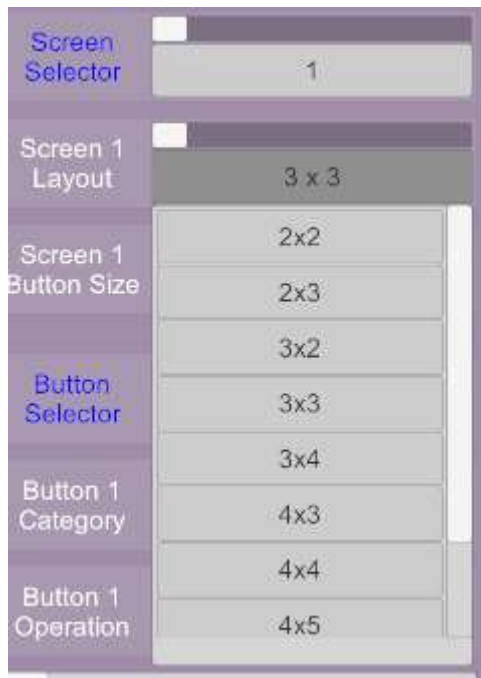
The size of the buttons can be set to Micro, Mini, Small, Medium or Large. The size of buttons on any screen are the same, but different screens can have different size buttons. Larger screen layouts (e.g. 9x9) will only support smaller buttons sizes.

Adding and switching screens can be done from the Screen Selector menu. When a screen is selected in this menu, the whole right panel is updated to display the current configuration of that screen.

When more than one screen (with buttons configured) has been added, the Wrist UI will display left and right scroll buttons to switch between the screens:

Note that when a screen is first added it will not have any buttons configured. Buttons will need to be configured before the screen can be accessed on the Wrist Watch UI.

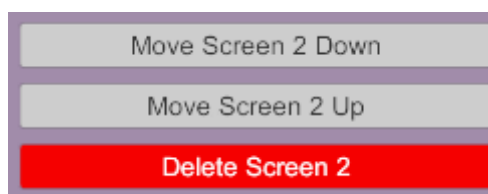There is also Patron Version Only Feature to specify a label for each Screen.

When active then Wrist UI will switch from showing the time to the screen label.


5.1   Re-ordering Screens

At the bottom of the right panel in the Plugin UI, the order of the screens of buttons can be modified:

Moving a screen "down" in order will move it earlier in the list of screens. Moving a screen "up" in order will move it later in the list of Screens.

6 Setting up UI Assist Buttons

Each button on a UI Assist Screen can be configured on the right panel of the plugin Custom UI under the Screen configuration:
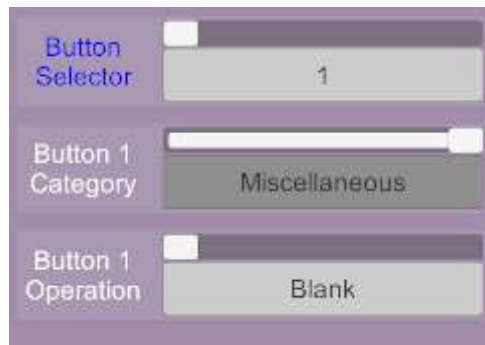

The button to be configured is chosen using the Button Selector menu. Each button has a unique number that defines its position on the screen (left to right and then bottom to top).

The function of a button is defined by selecting one of the Button Categories and then an Operation under that Category:
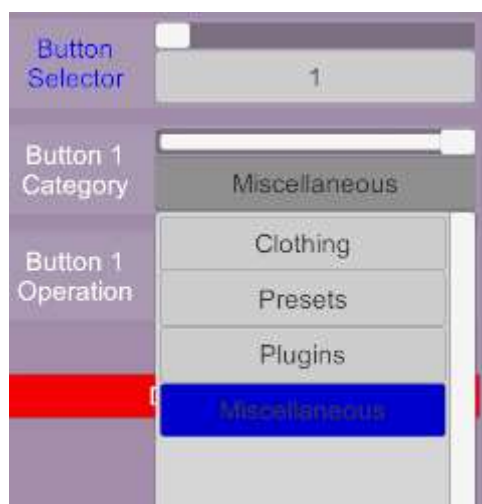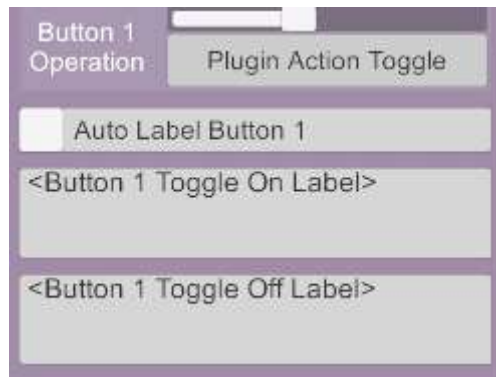

6.1 Auto or Manual Button Labels

By default every button will have an automatic label generated. This can be disabled and a custom label for each button can be manually specified:
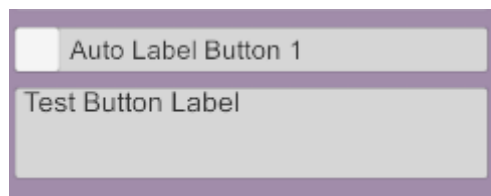
Some button types have two states (i.e. you can toggle the button between On and Off state). Where that is the case separate labels can be specified for the On and Off states:

6.2 Button Target & Category

A target and target category for every button can be specified:

These settings define the Atom(s) that the button operation will be conducted on. There are three categories of target that can be selected:
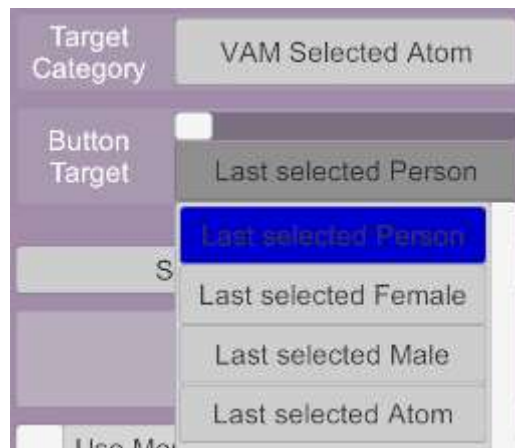
6.2.1 Gaze Selected Target

Where the target Category is selected as "Gaze Selected Atom" the button operation will be performed on the last Atom which was looked at by the user in VR (or was in the centre of the desktop screen). The type of atom can be further restricted to one of four options:

1. Last viewed Atom – the button action will be performed on the last gazed at Atom of any type
2. Last viewed Person – the button action will be performed on the last gazed at Person Atom (of either Male or Female type)
3. Last viewed Female – the button action will be performed on the last gazed at Female Person Atom
4. Last viewed Male - the button action will be performed on the last gazed at Male Person Atom

6.2.2 VAM Selected Target

Where the target Category is selected as "VAM Selected Atom" the button operation will be performed on the last Atom that was Selected using the default VAM Selection techniques. The type of atom can be further restricted to one of four options:

1. Last selected Atom – the button action will be performed on the last selected Atom of any type
2. Last selected Person – the button action will be performed on the last selected Person Atom (of either Male or Female type)
3. Last selected Female – the button action will be performed on the last selected Female Person Atom
4. Last selected Male - the button action will be performed on the last selected Male Person Atom

6.2.3 Atom Groups

Where the target Category is selected as "Atom Group" the button operation will be performed on all Atoms of the specified type in the current scene. The type of atoms can be selected to one of four options:

1. All Atoms – the button action will be performed on all Atoms in the scene
2. All People – the button action will be performed on all people Atoms in the scene

3. All Females – the button action will be performed on all Female people Atoms in the scene
4. All Males - the button action will be performed on all Male people Atoms in the scene

6.2.4 Specific Atom

The button action will be performed on the specific Atom in the current scene with the selected Atom name. Although this option is available for completeness it relies on scenes containing an Atom that has been specifically named which given the plugin setup is not scene specific, may not always be the case – so best practice is to avoid using this category of target.

6.3 Atom Control Features

The following features are available under the Atom Control button category.

6.3.1 Spawn Atom

This button type allows a new atom to be spawned at a custom position and configuration. Position can be a fixed location or relative to other atom/nodes or relative to the users view (VR Head) or VR hands.

The Spawn Atom button is more complex to configure than many buttons due to the wide range of options.

6.3.1.1 New Atom Category and Type

The first options are to select a type of atom to spawn. Most (but not all) of the standard VAM atom can be selected. These are grouped by the standard Atom types:
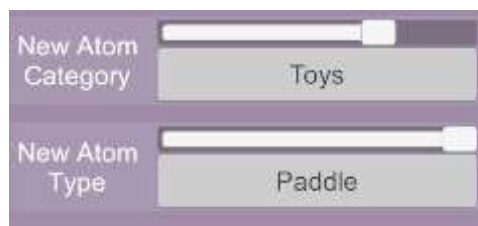
Where the Atom Category only contain one type of atom (e.g. People and Animation Patterns), there is no requirement to select the Atom Type.

#### 6.3.1.2 New Atom Position

The position and rotation of the new atom can be configured below the Atom Type selection. The position and rotation are always relative to a selected point:
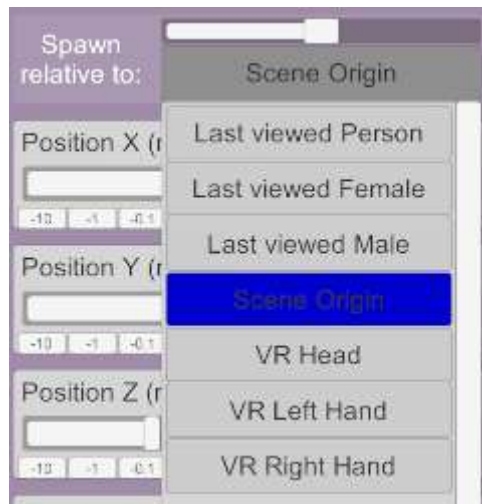
The function of each of the Spawn relative options are:

- **Scene Origin:** The new atom will be created relative to the Scene origin position i.e. (0, 0, 0). This is effectively the same as specifying an exact (or World) position and rotation for the new atom.

- **Last viewed Person/Female/Male:** The atom will be created relative to the relevant current Gaze Target (see section 6.2.1). This is particularly useful for spawning CustomUnityAssets that are specialised types of clothing.

- **VR Head:** The new atom will be spawned relative to the user's eye position and direction. In desktop mode this is relative to the current camera position. This can be used to ensure an Atom is created directly in front of the user.

- **VR Left/Right Hand:** The new atom will be created relative to the selected VR Hand position and rotation. In desktop mode this position will be the same as selecting VR Head.

Once the 'Spawn Relative to' option is selected, the offset from this position can be configured:


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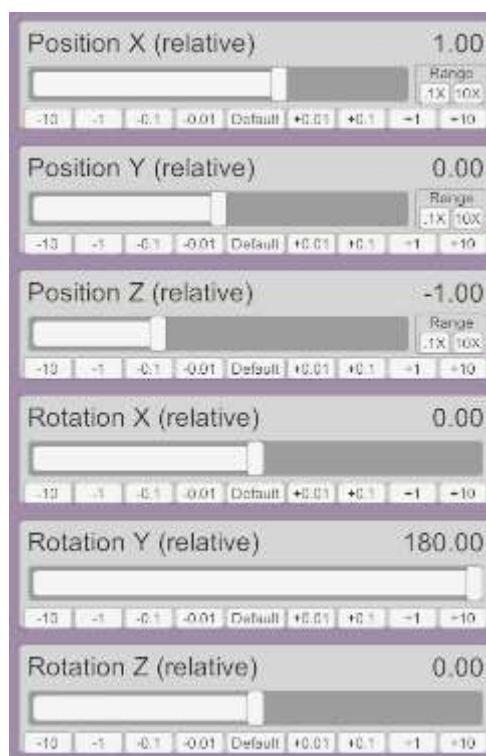
When relative to a Gaze Target or VR Head or VR Hands, it is possible to specify that the height (i.e. Y position), pitch (i.e. X rotation) and roll (i.e. Z rotation) of a new atom are fixed rather than relative:

This is useful (for example) when spawning a person Atom relative to the VR Hand and can ensure the new person is always spawned with their feet at ground level (i.e. Fixed Position Y equal to 0) and upright (i.e. Fixed Rotation X and Z equal to 0) irrespective of the position and rotation of the VR hand.

The position and rotation settings can be tested without spawning a new atom using the 'Test Atom Spawn position on' feature:
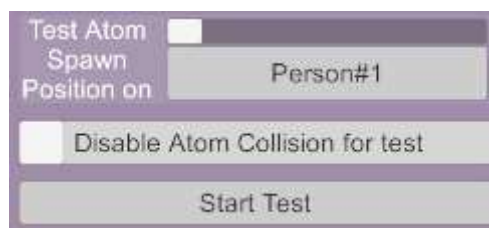
This feature requires an existing atom of the spawn type to be available in the scene. When Start Test is activated, the test atom will teleport to the specified position and rotation. Whilst the test mode is active, adjusting the position rotation settings in the button configuration will immediately update the test atoms position and rotation. Additionally, moving or rotating the test atom in game will update the button settings. **For this reason, it is important that only atoms that are not being animated are used as Test atoms**.
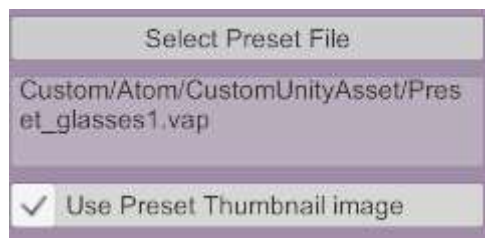
Optionally, collision for the test atom can be disabled. Pressing End Test will revert the Test atom to its original position and rotation.

6.3.1.3 New Atom Presets
For Person atoms, an Appearance preset and a Pose preset can be selected:

For all other types of atoms, a single atom preset can be selected:

The selected preset(s) will be applied as the new atom is being spawned. Optionally the thumbnail image for the preset can be used as the button icon. Patrons have the additional preset options described in section 6.4.3.

6.3.1.4   New Atom Plugins

Plugins can be specified to be pre-loaded for the new atom as it is created:

The Patron only version of the plugin allows for multiple plugins and plugin settings to be configured per Atom – as described for the Load Plugins feature (see section 6.6.1).

6.3.2   Teleport Atom

This button type allows a selected atom to be instantly moved (or teleported) to a custom position. The new position of the atom can be a fixed location or relative to other atom/nodes or relative to the users view (VR Head) or VR hands.

Options for configuring where the Atom is positioned are very similar to those described for Spawning Atoms – see Section 6.3.1.2.

6.3.3   Move Atom (VR Only)

The new Move Atom button type only operates when in VR.

Once activated, the main control node of the targeted atom will be moved by the VR controller that pressed the UIAssist button. Movement will mirror the rotation and position of the VR Controller. This is different to the standard VAM grab and move functionality – where an atom (or node controller) moves and rotates by pivoting around the position of the VR controller (which feels like swinging a pole with the atom or node attached at the far end).

The movement can be halted by clicking the "Grab" button (normally mapped to the primary trigger) on the VR controller that is controlling the movement. By holding the "Grab" button down, movement can be paused which allows the VR controller to be repositioned in real space without moving the target atom. Once the grab button is released then the atom movement will resume mirroring the VR controller.

To facilitate larger movements, different granularities can be set for both position and rotation. For example, when the Position granularity is set to Coarse the atom will move 3 times the distance moved by the controller. Different buttons can be configured for different granularities to easily switch between different movement modes.

In addition, each axis of rotation and position can be locked:

Locking an axis will prevent movement or rotation in world space along that axis. For example, locking the Y axis position will prevent the height of the atom from being adjusted.

Lastly, there is an option to turn off collision whilst an Atom is being moved.

6.3.4   Hide, Delete, Select Atoms
Button types are available to Hide, Delete or Select the currently focussed Atom(s).

NB: THERE IS NO WARNING, CONFIRMATION OR UNDO FOR DELETING AN ATOM.

6.3.5   Toggle Atom Collisions
Atom Collision can be toggled on and off using this button.

6.3.6   Detach Root Node
The toggle option available on Person atoms to detach the root node from the atom so it can be repositioned can be controlled by a UIAssist button using this feature.

6.4 Presets Category Features

Nine button operations are available when the Presets button category is selected:


Each of the button Operations relates to one of the different person Presets (only the newer .vap presets are supported currently). A preset button operation will display the options to select a preset file of the relevant type:
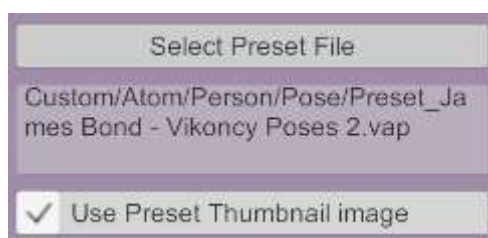
The thumbnail image associated with the preset can also be optionally used as a thumbnail on the button UI.
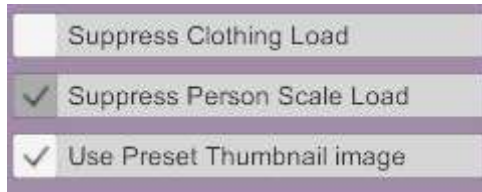
6.4.1 Suppress Clothing Load (PATRON ONLY FEATURE)

When applying Appearance Presets, an option will be available to suppress the load of any clothing items in that preset:
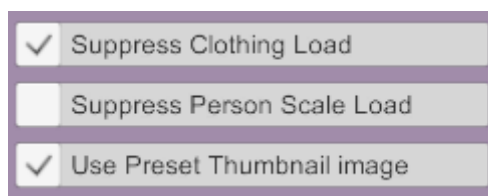
6.4.2 Suppress Person Scale Load (PATRON ONLY FEATURE)

When applying Appearance Presets, an option will be available to suppress the load of the person's scale when applying that preset:

This allows the size of the person defined by the scene to be maintained – which is useful where the alignment of animations are dependent on the person's scale in a scene.

6.4.3   Random or Folder Select Presets (PATRON ONLY FEATURE)

When applying any presets, an option will be available to either select a single preset file, or randomly select a preset from a specified folder or launch a file browser window for the user to choose a preset when the button is activated:

### 6.4.4   Skin Presets – Load Decals (PATRON ONLY FEATURE)

When applying any skin Presets, there is an option to only apply Decals from the skin presets:
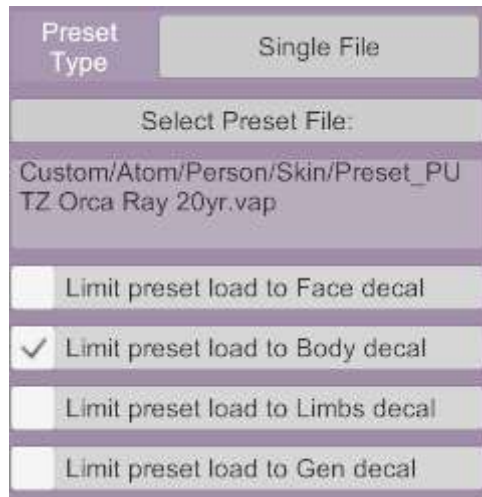
This can be used to apply decals such as Tattoos with a single button press. Note that any existing decal will be replaced. See section 6.7.6 for details of an integration with Chokaphi's DecalMaker plugin which allows decals to be merge loaded.

6.4.5   Merge Presets Option

New option is available for Loading Presets to use Merge Load when the Preset is loaded:
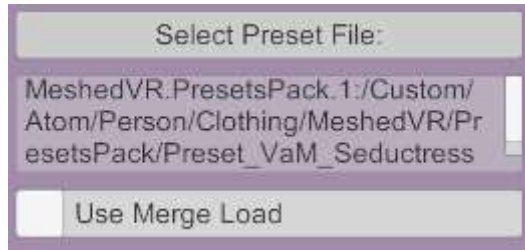
6.4.6   Load or Save Legacy Presets

New button types are available to Load and Save each of the Legacy Preset type (Preset, Pose and Appearance). The setup is otherwise the same as for the other presets (although there is no Merge option).

6.5   Clothing Category Features

The clothing category contains 8 operations

6.5.1   Remove All Clothing

Buttons with the "Remove All Clothing" operation selected will remove all clothing items from the target atom(s).

6.5.2   Undress All Clothing

Buttons with the "Undress All Clothing" operation selected will toggle the Sim Undress setting for all clothing items currently active on the target atom(s):

6.5.3   Reset Sim All Clothing

Buttons with the "Reset Sim All Clothing" operation will perform a Reset Simulation action for all clothing items on the target atom(s). This is the same as pressing "Reset Simulation" under individual clothing options:

6.5.4 Load Clothing Preset

Buttons with the "Load Clothing Preset" operation will perform the same function as a Preset Category button of the same name.
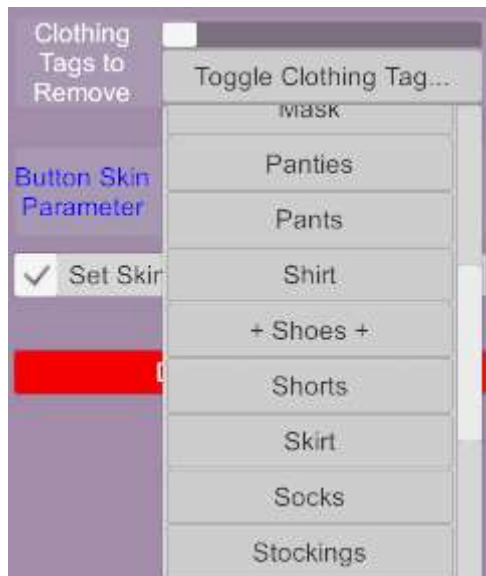
6.5.5 Remove Clothing Preset (PATRON ONLY FEATURE)

Buttons with the "Remove Clothing Preset" operation will remove the clothing items in the Clothing Preset from the target atom(s).

6.5.6 Merge Clothing Preset (PATRON ONLY FEATURE)

Buttons with the "Merge Clothing Preset" operation will load the specified Clothing Preset but without removing any existing clothing on the specified target Atom(s). The button is a toggle button which means the merge operation can be reversed to remove the specified Clothing Preset whilst retaining any other clothing items.

This feature allows you to mix and match different presets. For example, you might have multiple jewellery presets that each consist of multiple jewellery items that can be switched between.

From v1.2, a new option to remove clothing items with specified Tags at the same time as merging has been added:

Clothing Tags (from the Region and Type category) can be toggled for removal or not. The + symbol is used in the drop down to indicate Tags that have been selected (reselecting will get rid of the + symbol). When a clothing tag has been selected for removal, any clothing items with that tag will be removed before the Merge Clothing action.

This feature allows the Merge Clothing action to be used to switch between variants of a specific clothing type with a single action e.g. remove any existing shoes and load new shoes whilst keeping all other clothing items.

6.5.7 Set Undress Clothing Preset (PATRON ONLY FEATURE)

Buttons with the "Set Undress Clothing Preset" operation will toggle the Sim Undress setting but only for active clothing items in the selected Clothing Preset on the target Atom(s). This allows the ability to sim undress a subset of the currently active clothing with a single button press.

6.5.8 Reset Sim Clothing Preset (PATRON ONLY FEATURE)

Buttons with the "Reset Sim Clothing Preset" operation will perform the Reset Sim action but only for active clothing items in the selected Clothing Preset on the target Atom(s).

6.5.9 Active Clothing Editor

The Active Clothing Editor button type is available under Clothing Button Category:

When the button type is activated the Wrist UI display will become a list of clothing items being worn by the currently gazed at person:

Individual clothing items can be toggled on or off by pressing the remove button against the clothing item. Where a clothing item is "Sim Enabled", the Sim Undress can be toggled on and off by pressing the Undress button.

Multiple items can be selected using the check boxes on the left. The clothing state of these groups of selected items can be changed using the Remove and Undress buttons at the bottom of the list.

The top left text box shows the name of the Person atom that is currently being modified.

When a clothing item is removed from a Person (either in the Active Clothing Editor or in the normal VAM clothing UI) it is not removed from Active Clothing list (allowing it to be selected to wear again). To refresh the Active Clothing List to remove items that are not currently being work, the 'Clear Removed Clothing' button should be activated. In addition, loading a Preset (with a UIAssist button) that changes Clothing will remove all not currently worn clothing items from the Active Clothing Editor.

6.6 Plugins Category Features

The Plugins button Category contains six operations:
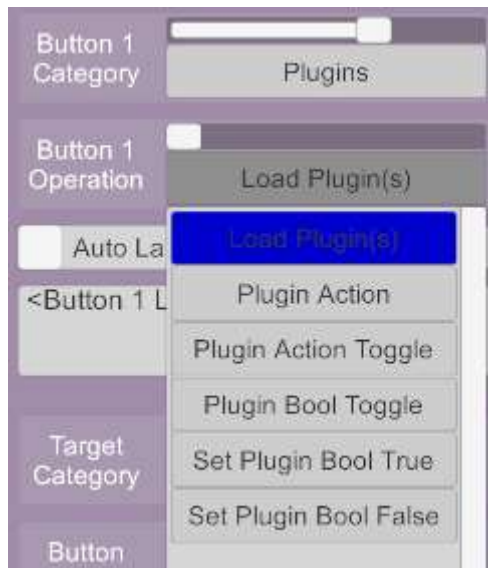
6.6.1 Load Plugin(s) (LIMITED FREE VERSION FEATURE)

Buttons with the Load Plugin(s) will load a specified plugin to the target Atom (s).


Patron Version users can select up to 20 plugins to load for each button (Free version users are limited to 1 plugin per button).

An option to limit the number of instances of the plugin to 1 per Atom will prevent multiple instances of the same plugin being loaded.

A further experimental feature for Patrons is to capture the configuration of a plugin and apply it whenever the plugin is loaded. Where a plugin of the selected type is available in the scene, then the current save data for that plugin can be captured and applied whenever the plugin is loaded. This is an experimental feature and may not work for all plugins.

Lastly, there is an option to Force Merge Load plugins:
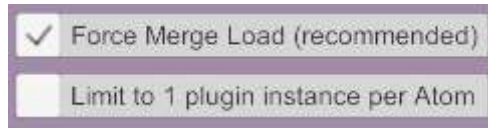
UIAssist has two methods of loading plugins to an Atom. The recommended method is via using a Merge Load for the Atom. This is more reliable as it mimics the scene loading process. However it takes a bit longer and a merge load causes the screen to turn black briefly.

The alternate method (when Force Merge Load is inactive) is to alter the Atom storables directly, which is faster but can cause problems with more complex plugins. You may experience any of these problems depending on the types of plugin:

1. The loading plugin may not work as expected or at all
2. Other plugins already loaded into the Atom may cease to work
3. Other plugins already loaded into the Atom may have their values reset to default

Note that this setting applies to all plugins being loaded with the button. i.e. it is not a per plugin setting.

6.6.2   Plugin Action & Plugin Action Toggle

Buttons with the "Plugin Action" or "Plugin Action Toggle" operation will execute a plugin Action on the target Atom(s) – if the plugin is loaded into that Atom.

The Plugin Type will contain all Plugin types in the current scene and then an action for that plugin type can be selected.

A "Plugin Action Toggle" button will have two states (ie. On and Off) to toggle between. A separate action can be specified for each state:
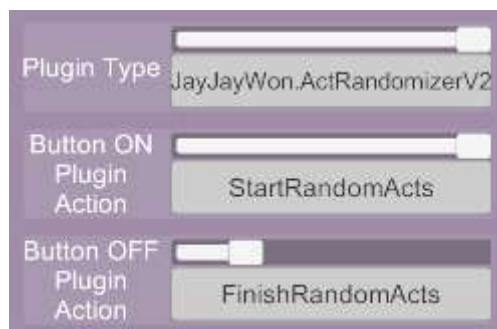
From v1.3, the settings (i.e. parameters or variables) for each plugin can be set before triggering an action:

Where a plugin setting is listed in the drop down with the '+' symbol at the start and end – this indicates that the setting will be initialised. By selecting one of the parameters, the user can choose whether to initialise that value and what value to initialise it to:
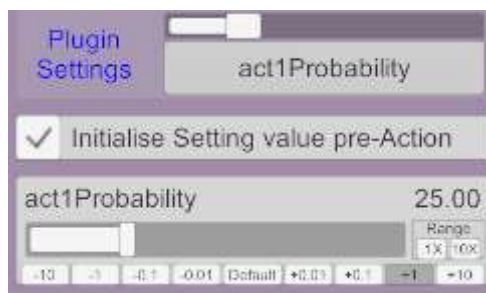
Initialised settings will now be applied to the plugin whenever the UIA button is activated.

6.6.3   Set Plugin Settings & Toggle Plugin Settings (NEW v1.12 FEATURE)

Buttons with the Set Plugin Settings or Toggle Plugin Settings can be used to configure or change the settings of a plugin. This is identical to the functionality described in Section 6.6.2, except that a plugin action is not activated after the settings are changed.

6.6.4   Plugin Bool Toggle, Set True & Set False

Buttons with the "Plugin Bool Toggle" or "Set Plugin Bool True" or "Set Plugin Bool False" operation will either toggle a plugin Bool value or set it to be True or False on the target Atom(s) – if the plugin is loaded into that Atom. The setup options are the same as for Plugin Actions except only Plugin Bool values will be selectable.

6.6.5   Unload all Plugins

Buttons with the "Unload all Plugins" operation will remove all currently loaded plugins from Atoms that are in the scope of the Target criteria of the button. The setup options are the same as for Plugin Actions except only Plugin Bool values will be selectable.

6.7   Appearance Category Features

The Appearance category contains 8 operations:

6.7.1   Load App Preset

This feature performs an Appearance Preset load and is exactly the same as the function under the Presets category described in Section 6.4.

6.7.2   Reset Scale

When the Reset Scale button is activated it will reset the scale of the Target Persons to their size at the last scene load. If the Atom did not exist at scene load (or has had a name change) then the scale will be set to 1.0. This feature is useful when a scene animation becomes mis-aligned due to a scale change when loading a new look or appearance to a person.

6.7.3   Reset Appearance

When the Reset Appearance button is activated it will reset the appearance/look (including scale) of the Target Persons to the state at the last scene load. If the Atom did not exist at scene load (or has had a name change) then the appearance will be returned to the VAM default female.

6.7.4   Suppress Scale Load (PATRON ONLY FEATURE)

Buttons assigned this feature will toggle between "Scale Suppression" being active or not. When activated, any appearance preset loads (via UI Assist) will not change the scale of a person. This avoids animations becoming misaligned in some scenes.

6.7.5   Set Hair Color

Buttons assigned this feature will apply the selected hair color settings to all hair on the target person. This is useful for rapidly switching hair coloring – for example from blonde to black to brunette etc. Where multiple hair items are active on a target person – then all hair items will be changed to the same color. Scalp and hair color can be set at the same time.

To select a hair color for the button operation, chose from a list of existing hairs in the scene:
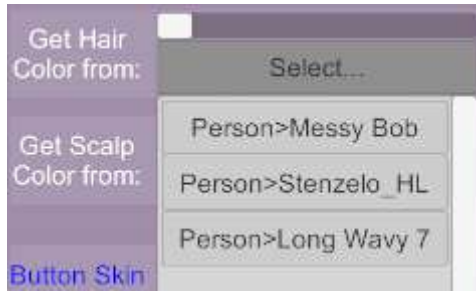
Once a hair has been selected, the details for that hair style (including the color settings) are displayed in a text box:
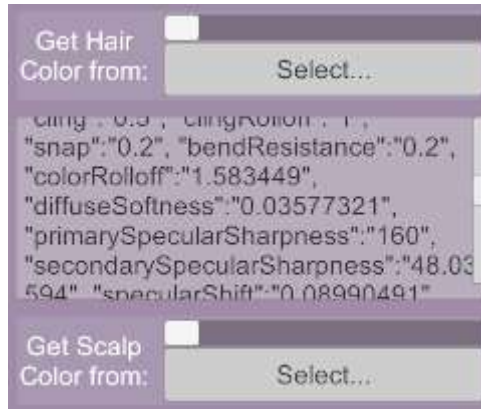
The details displayed can not be edited or changed within UIAssist but give a visual representation that a hair color has been captured. Whenever the button is activated then these hair settings will now be applied.

To set different colors, edit the hair color using the standard VAM Hair Creator tool and recapture the color settings in UIAssist.

NOTE: recreating all of the Hair Color configuration in UIAssist was considered but seemed excessive given how complex the UI already is.

6.7.6   Decal Maker Toggle

Decal Maker Toggle provides an integration with the DecalMaker plugin by Chokaphi (https://hub.virtamate.com/resources/decal-maker.196/). This allows decals to be merge loaded so that multiple decal textures can be applied to the same body part simultaneously. For example, this can be used to apply and merge a tattoo and makeup from two different textures. UIAssist has been tested with DecalMaker Beta 4.

UIAssist allows decal textures to be toggled on and off with a single button press on the UIAssist interface. Each UI Assist button can be configured to load multiple face, torso, genital and limb decals:

From the 'Select Texture…' buttons, options allow texture to be added, removed or selected:

For each decal, a texture file can be selected and its color and alpha setting can be configured:

Once all the decals are setup, then activating the button will apply or remove the decals to the target person. If the target person does not have the DecalMaker plugin loaded, then UIAssist will

NOT attempt to load the latest version of that plugin from VARs – so you need to load it on the Person Atom first.

If any decals are active in the VAM skin texture settings, then UIAssist will automatically apply this with the DecalMaker decals.

6.8   Miscellaneous Features

The Miscellaneous button category consists of general button configuration options not available under other categories:
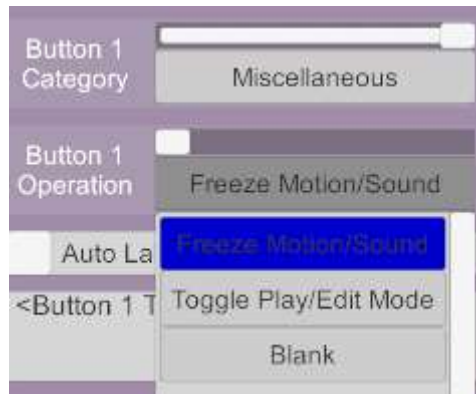
Each of the three Miscellaneous button operations are described below:

6.8.1   Freeze Motion/Sound

Buttons with this function will toggle the VAM function the freezes motion and sound.

6.8.2   Toggle Play/Edit Mode

Buttons with this function will toggle VAM between Play Mode and Edit Mode.
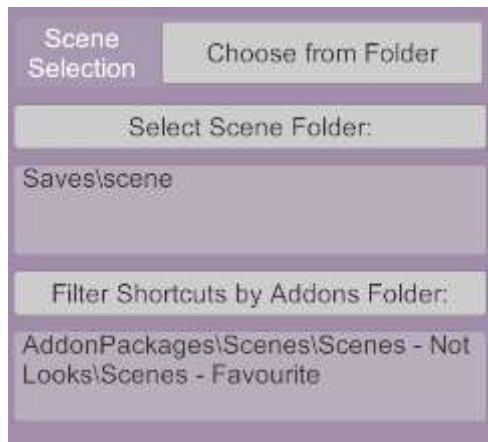
6.8.3   Load Scene

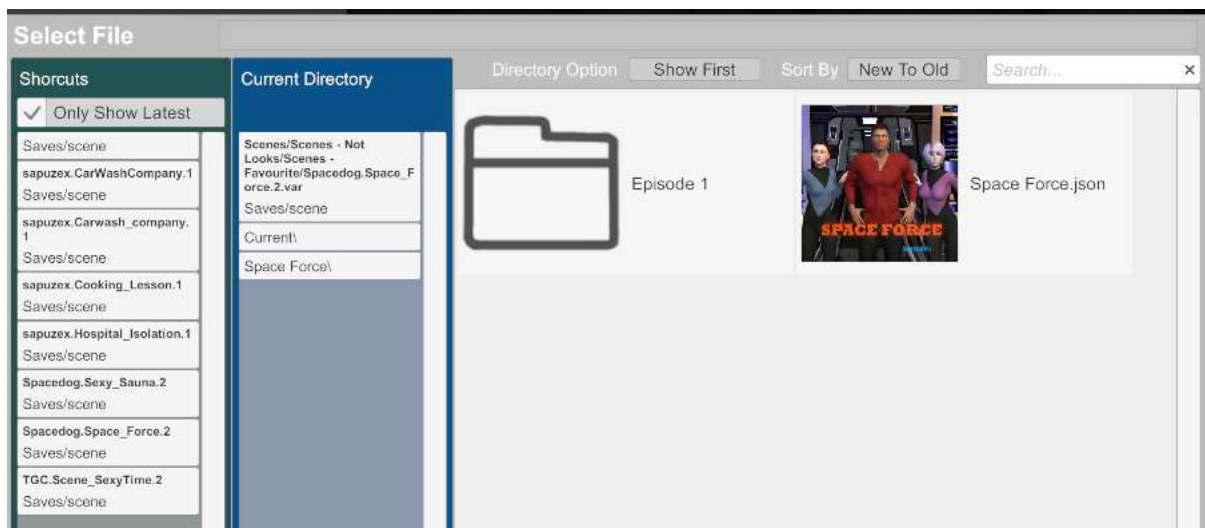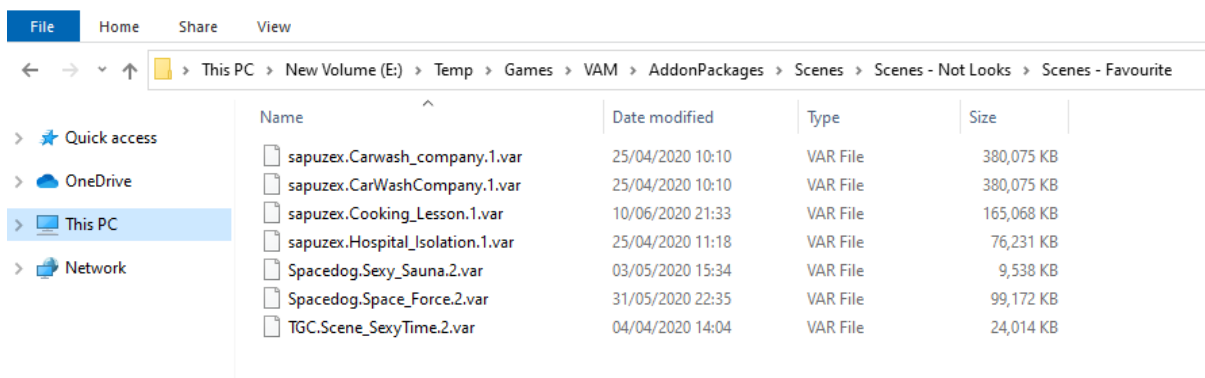Buttons with this function will load a new VAM scene as selected:

When using the Scene Selection from Chosen Folder, there is now an option to filter the shortcuts (left hand of the File selector dialog box) so that only Scenes from VARs within a specific subfolder are listed:

The above settings will activate a Scene file selection as follows:

Only 7 scenes are shown in the Shortcuts list – reflecting the organisation of VARs under the AddonPackages folder:

6.8.4   Merge Load Scene

Buttons with this function will merge load a new VAM scene as selected.

6.8.5 Toggle Performance Options

The Performance User Preferences for Soft Body Physics, Desktop VSync and Performance Monitor can be toggled on and off.

6.8.6 Show Hidden Nodes

The Select preference to 'Show Hidden' can be toggled with this button type. Note that the Hide option effects the controllers when in Edit Mode and whether they are visible – it does not effect whether the actual Atom is visible or not.

Hidden atoms won't be selectable as targets for Gaze Select unless the "Show Hidden" option is active.

6.8.7 Toggle Show VR Hands

Buttons with the function will toggle whether the VR Hands are visible or not. The button can be configured to toggle either the left or right or both hands.

6.8.8 Blank

Buttons with this function will act as a blank spacer on the UIA Wrist UI. If a screen only contains blank buttons then it won't be accessible from the UIA Wrist menu.

6.9 UI Assist Features

The UI Assist button category consists of button configuration options the control UI Assist feature and tools:

6.9.1 Load UI Assist Profile

The feature allows a button to be configured to load a new UI Assist profile. This feature is the same as the option on the plugin UI described in Section 7, except that the load can be trigger in game from the wrist UI. This allows the rapid switching of button profiles for different purposes if required.

6.9.2 Gaze Assisted Select

Gaze Assisted Select is a feature that is intended to help with the selection of nodes and atom controllers. Where nodes are close together it can be awkward to select the correct node using the mouse or pointer. The Gaze Assisted Select mode displays a list of nodes in game next to the UI Assist button menu as follows:
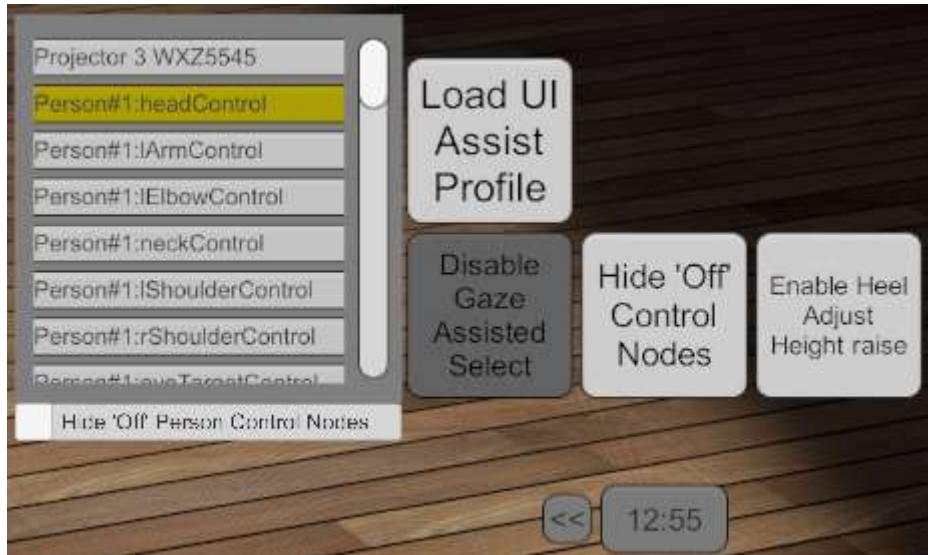
The yellow highlight item in the list is the currently selected node. The order of items in the list will automatically update as the user changes the direction they are looking so that the items nearest the centre of the current view are listed at the top.

For the body part nodes (e.g. head control), if the user clicks on an already selected node then the selection will toggle between the body part and main person control.

Note that the Gaze Assisted Select mode will only be active when VAM is in Edit Mode.

6.9.3   Hide 'Off' Control Nodes

The "Hide 'Off' Control Nodes" feature will allow the red body part nodes (which have their Position and Rotation states set to Off) to be hidden and not selectable with the mouse or VR controller. This is useful to avoid accidentally selecting the Off nodes when trying to select an On node.

6.9.4   Raise People by Heel Adjust height

This feature allows the Heel Adjust Toobox setting (previously documented in section 8.1) to be toggled from the in game menu buttons.

6.10 Scene Animation Features (NEW v1.12 FEATURE)

The Scene Animation button category consists of button configuration options that can control the Scene Animation playback and record functions:
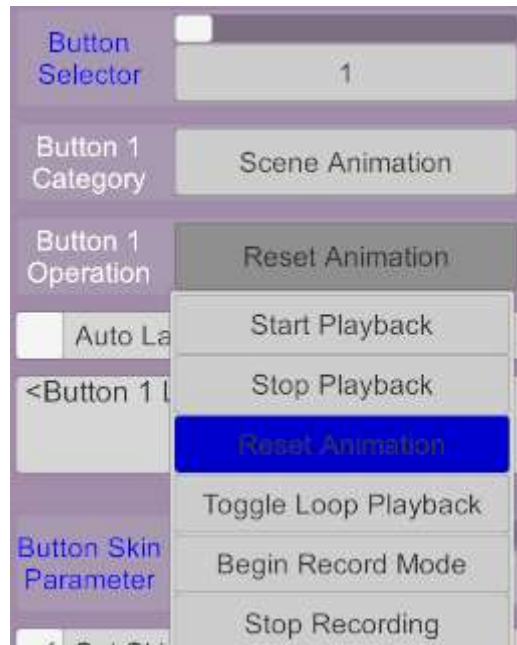
Each of these functions correspond to a standard VAM setting on the Scene Animation tab:

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6.11 Custom Button Skin (PATRON ONLY FEATURE)

Users of the Patron version of UI Assist can modify the appearance of buttons on the Wrist UI. This can be done at a default level for all buttons and can be optionally overridden for each specific button.

The default settings for all buttons are available at the bottom of the left panel on the plugin Custom UI.

The following parameters can be specified:

6.11.1 Font Size

The minimum and maximum font size can be specified separately for Micro, Mini, Small, Medium and Large buttons. The text in the buttons will be auto-sized to fit the box without exceeding these limits. To specify an exact font size then set the min and max font sizes to the same value.

6.11.2 Button Font
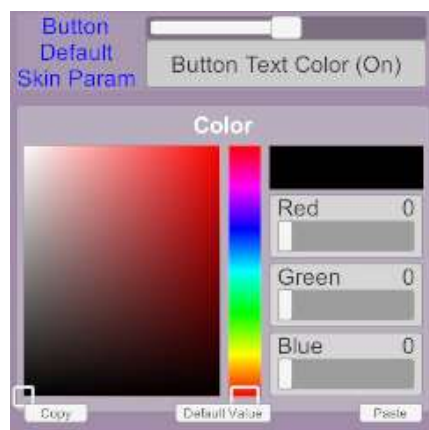
A choice of four available fonts can be selected from:

6.11.3 Button Text Alignment

An alignment of the text within the buttons can be selected:

6.11.4 Button Text Color

The color of text for the buttons can be selected. Where buttons have two states (ie. On and Off) a separate color can specified for each state:

6.11.5 Button Color

The color of the buttons can be selected. Where buttons have two states (ie. On and Off) a separate color can specified for each state.

6.11.6 Button Thumbnail

An image file can be used as a button thumbnail. Where buttons have two states (ie. On and Off) a separate thumbnail can be specified for each state:

6.11.7 Button Specific Skins

For every individual button the default values for all the skin settings can be overridden to create a specific look for that button:

6.11.8 Gaze Select Button Color

When Gaze UI Control is active (see Section 4.5) the UIA buttons will be shaded a different color to indicate which button is being gazed at. That color can be customised as per below:

6.11.9 Default Gaze Target

When a new button is being configured, by default the gaze target will now be set to 'Last viewed Female' (prior to v1.3 the default was 'Last viewed Person'). Users can change that default under Button Default Skin Params (bottom left of the plugin UI):
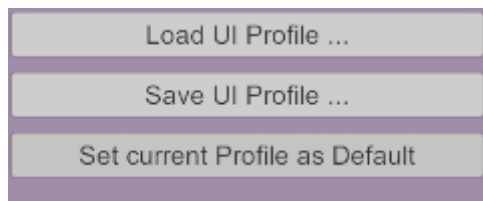
6.11.10   12/24h clock

The time format for the main UIAssist Wrist watch can be switched from 24 hour clock to a 12 hour clock:

# 7   Saving and Loading UI Assist Configs

Once a set of UI Assist Screens and Buttons have been setup, their configuration can be saved and reloaded. This allows switching between different button configurations for different purposes.

Additionally, pressing the "Set current Profile as Default" will set the current configuration of UIAssist to be loaded whenever UI Assist starts.

8   Toolbox functions

From UIA v1.2 a new Toolbox option is available on the left of the UI Assist plugin menus:
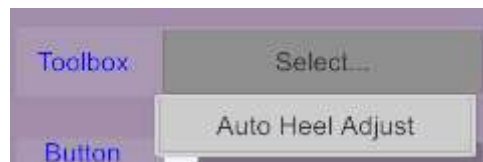
8.1   Auto Heel Adjust Tool

The Auto Heel Adjust tool builds on the excellent VAM HeelAdjust plugin made by Prestigitis. The HeelAdjust plugin can be used to define heel and toe rotations for different shoe clothing items. It also creates colliders to mimic the heels. The settings can then be saved into a HeelAdjust file.

Once the HeelAdjust settings have been defined and saved in the \Saves\HeelAdjust folder, UI Assist will read those settings and apply them automatically to any person wearing a shoe that has a defined Heel Adjust setting (without the original prestigitis plugin being loaded):
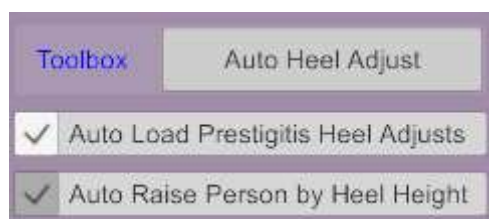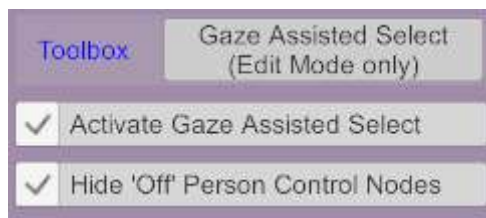

In addition, UI Assist can optionally raise and lower the person by the height of the heels – to avoid long heels from intersecting with the floor.

8.2 Gaze Assisted Select Tool

The Gaze Assisted Select features can be adjusted from within the Plugin UI as follows:

These two toggles replicate the same functionality as described in the button controls in sections 6.9.2 and 6.9.3

8.3 Force VAM Modes Tool

The Force VAM Modes Tool allows various VAM states to be set automatically:

Each of the toggles enables the following functions when selected:

1. Edit Mode on Scene Load – forces VAM into Edit Mode every time a scene is loaded
2. Edit Mode on VAM UI Open – forces VAM into Edit Mode every time the standard VAM UI is opened
3. Play Mode on VAM UI Close – forces VAM into Play Mode every time the standard VAM UI is closed.
4. VSync Off at VR start-up – forces the VSync performance setting to be disabled when VAM is started in VR Mode
5. VSync On at Desktop start-up – forces the VSync performance setting to be enabled when VAM is started in Desktop Mode