CGI Studio 3.8

CGI Studio 3.8 - What's new:

Welcome to CGI Studio 3.8, Candera's software development platform for development of hybrid 2D and 3D graphical interfaces for Automotive Systems.

This page provides information about the most important features added since the last Release.

Release Package Signature

CGI Studio Release Packages will now be released with a Release Package Signature. This way you can always make sure that the delivery is from Candera GmbH and it includes the original files without any change. [More...]

Adorners - Gizmos for Layouters

CGI Studio offers the option to use adorners for an easy manipulation of the nodes inside layouters. The adorners gizmos can affect the following properties: Vertical Alignment, Horizontal Alignment, Size and Margin (Left, Top, Right, Bottom) in the Layout category and the Position in the Transformations category. This editing can now be done using the mouse and keyboard without having to manually change the node properties values. [More...]

LayoutMonitor Support in Player

The Layout monitor is a feature that allows the user to see the relevant areas computed by the layouter as an overlay on top of the rendering of the application. The user can select nodes in the scene tree, the layouter rectangles are drawn automatically. The visualization is useful to understand how the dynamic layout is applied. Additionally the retrieval of various layout properties is available. The feature is available in the Player. [More...]

New Controls

	**Keyboard Control**: The Keyboard Control emulates physical computer keyboard that enables a user to enter characters into an InputField Control. The Keyboard Control is highly customizable via Configuration Script described below. To use the Control one needs to connect an InputField with a keyboard via KeyboardAction with Action Open. When the InputField send the event, the Keyboard appears and sends pressed characters to the InputField that activates it. [More...]
	**Roll Control**: The Control represents a vertical list of numeric values from a specified range with a specified step. Current value of the Control is visible in the middle of the control and can be zoomed like using lens. Changing the current value can be animated and can be done using touch/pointer or configurable keys of a keyboard. One can edit the current value of the Control by entering it with a keyboard. To use the Control simply put it in a scene and configure all desirable properties. A roll can forward value as well as receive a send value as event. [More...]
	**MenuScreens Control**: The Control represents a menu in the form of a grid of icons (instances of the Menu Item Control). It has configurable number of rows and columns as well as default and maximum number of screens. A user can swipe between neighbouring screens. The Control handles user input and forwards proper information to children MenuItem nodes. The children nodes may be removed and reordered in runtime. [More...]
	**MenuIcon Control**: The main rationale behind the MenuIcon Control is an encapsulation and abstraction of an “icon” like in graphical environments of most known operating systems. It stores a bitmap and a string (label) together and provides single configuration of common behavior like positioning or highlighting. It is designed to use inside the MenuItem Control and most probably one would like to use the MenuItem instead of plain MenuIcon. [More...]
	**PageIndicator Control**: A PageIndicatorElement is a control which is part of Page Indicator which indicates currently displayed page. This control is intended to be used as component of Page Indicator and therefore is not focusable as individual element. The control offers possibility to customize it’s appearance through 9 patch image and color properties. [More...]

	**Mesh2D Control**: Performs a perspective projection of a 3D rotated effect (e.g. Bitmap or SolidColor effects) based on the configured origin, rotation and field of view. [More...]
	**CoverFlow Control**: A CoverFlow is a proof-of-concept control that alows for horizontal swiping of child items. The items are scaled according to their location. [More...]
	**FPSDisplay Control**: The FPS Display Control provides a Text Node that displays the currently rendered frames per second, which allows benchmarking running applications. [More...]
	**FrameCounterDisplay Control**: The Frame Counter Display Control provides a Text Node that displays how many frames were already rendered. [More...]
	**FrameTimeDisplay Control**: The Frame Time Display Control provides a Text Node that displays the time it takes between frames to be rendered, which allows benchmarking running applications. [More...]

New Behaviors

- **Blend Options**:
  Sets a blend mode from a given list of options. Depending on that option the behavior choses the appropriate blend factors and operations. In 2D it sets the values on the effect and in 3D on the render-mode if one is attached on the same node.

  There are 8 different blend modes to set. [More...]
- **Smooth Value**:
  Acts as a receiving Process Value Behavior. When the Behavior receives a Value, it will apply exponential smoothing. [More...]
- **Poi Metadata Handler**:

  PoiBehavior [More...]
- **Distance Alpha Fading**:

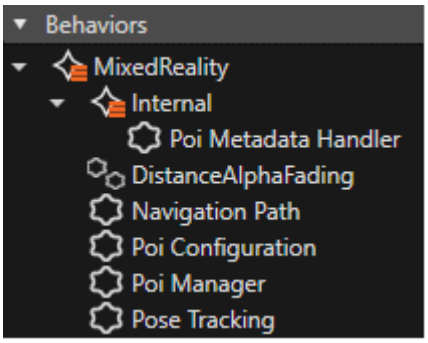
  This behavior is a Group. [More...]
- **Navigation Path**:

  Registers to navigation points and displays them as mesh in world space. [More...]
- **Poi Configuration**:
  Behavior that configures the mapping of a name to a assetId, such that it can be found by the PoiFactory. [More...]
- **POI Manager**:

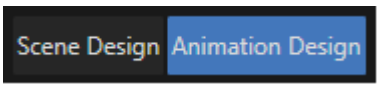
  Manager of the poi control nodes. [More...]

- **Pose Tracking**:

  Behavior that sets the pose of a target node. [More...]



Extended Animation Features



In SceneComposer 3.8.0 the user can animate even more different properties. It is now able to animate Control Properties, Optionals, Variants and Script Component Properties. [More...]

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glTF 2.0 Importer to Support Physically Based Rendering

In order to be able to create HMIs using 3D objects with similar rendering quality as running on mobile versions of game engines, CGI Studio's render techniques have been improved by methods of Physically Based Rendering (PBR). glTF 2.0 is more than defining PBR materials, it is a new state-of-the-art file format that is now supported by CGI Studio. [More...]

2D over 3D Support for Post Processing Effects

The process of creating and applying posr processing effects within CGI Studio has been simplified. The user can now drag and drop pre-defined post processing effects onto a camera via script.
An example has been created to show how the following post processing effects can be applied to a 2D and 3D scene:

- Depth of Field
- Bloom
- Simple Blur

  [More...]

External Texture Image

Users of CGI Studio are now able provide externally rendered images within the HMI on Linux systems using Wayland. For example an image decoded from a video stream or provided from an external image repository, such as a media database. [More...]

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