

# iCanScript Release Notes

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# iCanScript v1.0.4 (Beta #18)

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March 10th, 2014

iCanScript v1.0.4 improves detection of errors/warnings when compiling the visual scripts.

## Known Bugs

- **Undo / Redo:** Unity version 4.3.2f1 has a nasty bug with its Undo feature. The operations that are affected by this bug are those that involves mouse drag (in fact any operations that generates multiple internal UI events). Beware that we are following the evolution of this bug and will make any necessary adjustments once Unity has corrected the issue.
- **Performance Glitches:** Having the *Transform* displayed in the inspector when playing a visual script can cause some performance glitches. Please fold the *Transform* if you find that the execution is jerky.

## Bug Fixes

- **Compilation:** Errors generated while compiling now aborts the execution of the script.
- **Compilation:** An error is now raised when the code for a node can't be generated due to removing a library or changing type name.

## Features & Improvements

- No change in this release.

## Demos & Tutorials

- No change in this release.

# iCanScript v1.0.3 (Beta #17)

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March 1st, 2014

iCanScript v1.0.3 corrects a major issue when running the included Playground demo scenes.

## Known Bugs

- **Undo / Redo:** Unity version 4.3.2f1 has a nasty bug with its Undo feature. The operations that are affected by this bug are those that involves mouse drag (in fact any operations that generates multiple internal UI events). Beware that we are following the evolution of this bug and will make any necessary adjustments once Unity has corrected the issue.
- **Performance Glitches:** Having the *Transform* displayed in the inspector when playing a visual script can cause some performance glitches. Please fold the *Transform* if you find that the execution is jerky.

## Bug Fixes

- **Playground Demo:** Playground demo is now playable.
- **Visual Editor:** Embedded nodes are now displayed when performing Copy-Drag (Ctrl+drag).
- **General:** Remove extraneous display logs when dragging nodes.

## Features & Improvements

- No change in this release.

## Demos & Tutorials

- **Playground Demo:** Fix warnings & errors when executing the playground demo.

# iCanScript v1.0.2 (Beta #16)

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*Feb 5th, 2014*

iCanScript v1.0.2 includes a full review of the visual editor animations and several corrections in its Undo / Redo features. In addition, this version adds the following two cool features:

- Multi-Selection and;
- Contextual Menu for Port Drag & Release.

Read-on for additional details.

Enjoy !!!

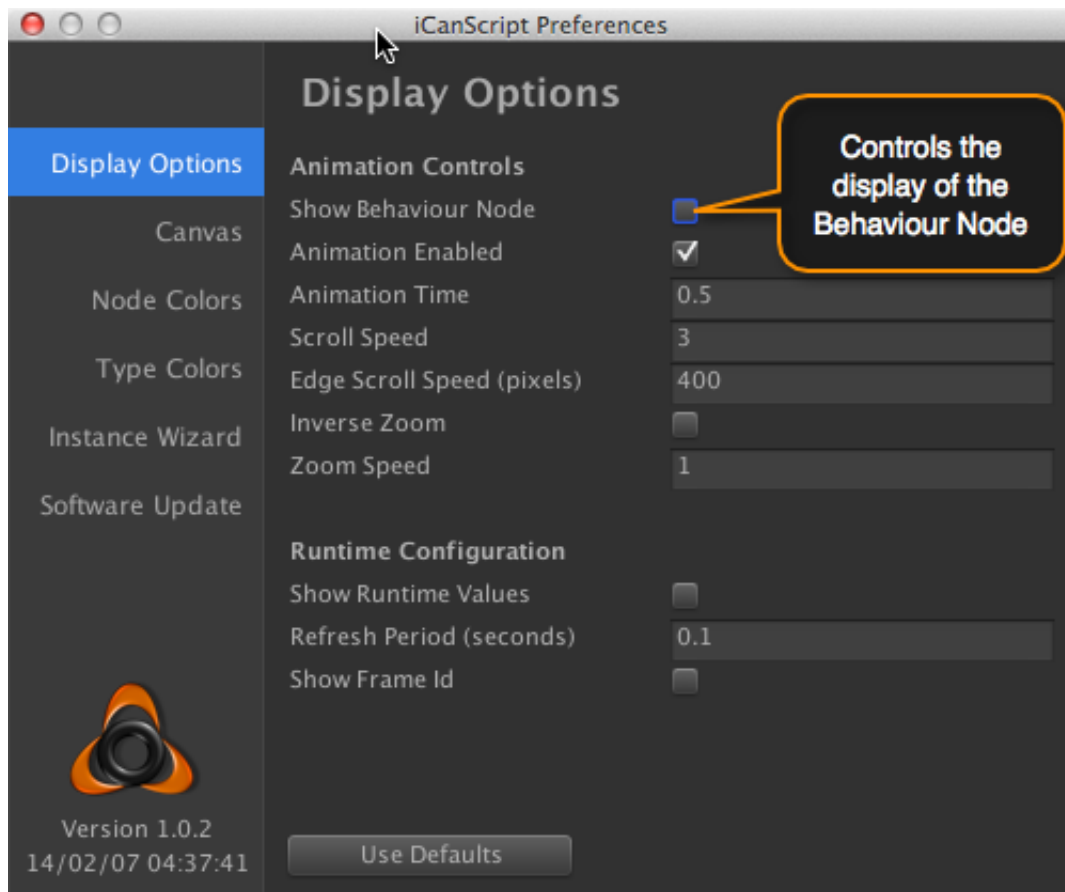
## Known Bugs

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- **Performance Glitches:** Having the *Transform* displayed in the inspector when playing a visual script can cause some performance glitches. Please fold the *Transform* if you find that the execution is jerky.

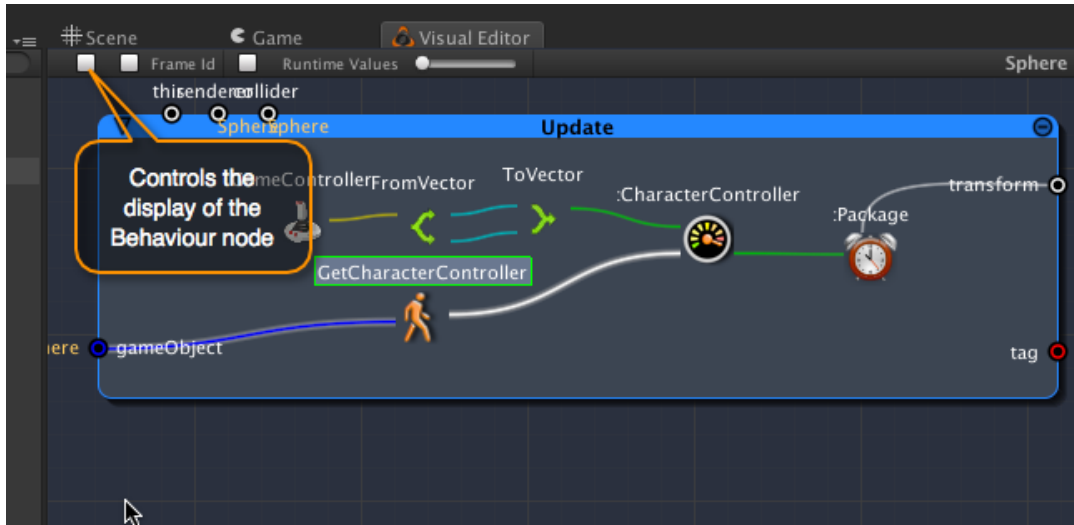
## Features & Improvements

- **Multi-Selection:** Hold down the Command/Windows key to select multiple nodes & ports. Multi-Selection can be used to:
  - Delete a group of nodes / ports;
  - Warp a selection in a package;
  - Drag multiple nodes to a new location.

- **Contextual Menu for Port Drag & Release:** A contextual menu is available when you drag and release a data or control port in an empty area of a package node. The menu gives you the ability to create nodes and automatically bind them to the dragged port.
- **Node Library:** All “FromVector” and “ToVector” have be relocated under a new iCanScript Library named “From <-> To”.
- **Wrap in Package:** You can now wrap the selected node(s) in a package using the contextual menu or using the ‘W’ key shortcut.
- **Delete Package Keep Children:** You can now delete a package and promote the children nodes to the parent package.
- **Display of Behaviour Node:** The display of the Behaviour node can now be disabled using the Preferences Panel or the checkbox on the left of the visual editor toolbar.



Behaviour display option - Preferences Panel



Behaviour display option - Visual Editor

## Bug Fixes:

- **Message Node:** Fix message handler warnings/errors when playing the game.
- **Port Relocation:** Fix problem where dragging port on edge of same parent would cause an illegal circular connection.
- **Contextual Menu for OnEntry, OnUpdate, OnExit:** A contextual menu is now available for the state node *OnEntry*, *OnUpdate*, and *OnExit* packages.
- **Undo/Redo:** All undo/redo were revised and corrected. (see known bug above for details).

## Demos & Tutorials:

- No change in this release.

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# iCanScript v1.0.1 (Beta #15)

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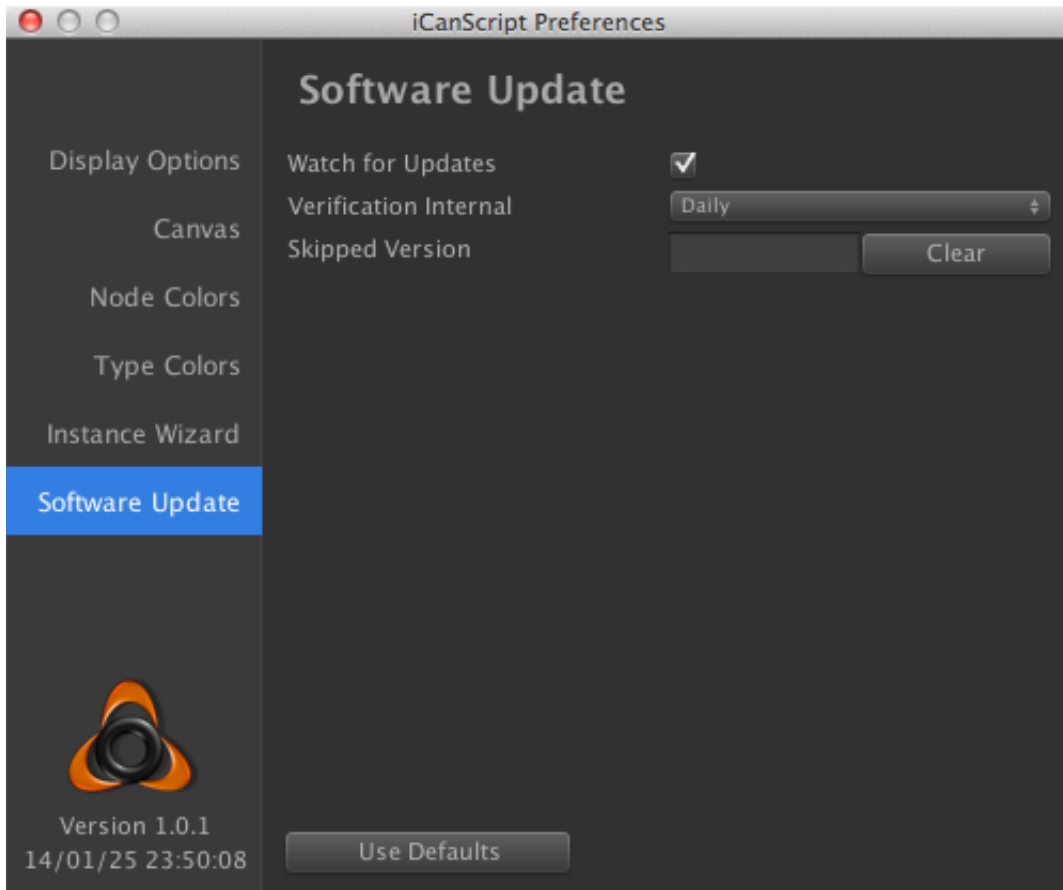
*Feb 3rd, 2014*

iCanScript v1.0.1 is the 2nd release in preparation for submission to the Unity Asset Store. This release includes corrections for critical bug in editing state charts and code generation. The software upgrade feature as also been improved.

Enjoy !!!

## Features & Improvements:

- **Build Date:** The build date is displayed below the version information in the Preferences Panel.
- **Property Port Name:** Property output port is now named with the property name.
- **Periodic Check for Update:**
  - Periodically verifies for newer versions of iCanScript.
  - The interval can be adjusted from the *Preferences Panel*.



Software Update Preferences

## Bug Fixes:

- **State Chart:** Fixes crash when binding the *“Transition Package trigger port”* while it is already bounded.
- **Re-parenting Node:** Fix broken binding when re-parenting a node with a circular connection (output port connected to an inout port) and a connection to another node from the same output port.
- **Code Generation:** Fix *Package* code generation issue resulting in ports not being created with the proper internal *“index”*.
- **Transition Node:** The name of *Transition Node* can now be edited.

## Demos & Tutorials:



- **Playground:** A mini-playground demo has been added to the Demo\_Scenes folder. This demo consists of a rolling ball that can be controlled by user input.

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# iCanScript v1.0.0 (Beta #14)

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*Jan 23, 2014*

iCanScript v1.0.0 (Beta #14) is the first release that complies with the Unity Asset Store requirements. It includes:

- menu re-organization;
- documentation distribution;
- a Quick Start demo scene; and...
- bug fixes.

## Unity Asset Store Required Changes

- **Menus:** The items in the top-level *iCanScript* menu were relocated as follows:

Menus Items (before v1.0.0)	Relocated Menu Items (v1.0.0)
<i>iCanScript-&gt;Create Visual Script</i>	<i>Edit-&gt;iCanScript-&gt;Create Visual Script</i>
<i>iCanScript-&gt;Center Visual Script</i>	<i>Edit-&gt;iCanScript-&gt;Center Visual Script</i>
<i>iCanScript-&gt;Center on Selected</i>	<i>Edit-&gt;iCanScript-&gt;Center on Selected</i>
<i>iCanScript-&gt;Home Page</i>	<i>Help-&gt;iCanScript-&gt;Home Page</i>
<i>iCanScript-&gt;User Guide</i>	<i>Help-&gt;iCanScript-&gt;User Guide</i>
<i>iCanScript-&gt;Release Notes</i>	<i>Help-&gt;iCanScript-&gt;Release Notes</i>
<i>iCanScript-&gt;Customer Request</i>	<i>Help-&gt;iCanScript-&gt;Customer Request</i>
<i>iCanScript-&gt;Check for Updates...</i>	<i>Help-&gt;iCanScript-&gt;Check for Updates...</i>

- **Documentations:** The following documentation files can be found in the top-level folder of iCanScript:
  - Readme.pdf

- Release Notes.pdf
- **Demo Scenes:** iCanScript now includes a *Demo\_Scenes* folder. This folder includes the *Quick Start Tutorial* scene. Please refer to the User Guide for detailed explanation in building the Quick Start scene.

## Features & Improvements:

- **State Chart:** The Transition Package as been significantly simplified. You can now create the guard condition directly under the transition module.
- **State Chart Icons:** New icons are provided for state *OnEntry*, *OnUpdate*, and *OnExit* packages.

## Bug Fixes:

- **Engine :: State Chart:** The state chart execution could stall the engine due to improper deadlock resolution.
- **Engine :: State Chart:** The engine code for multiplexer ports on the edge of state chart was not generated causing those ports to stall their output value.

## Known Bugs:

- **State Chart:** Binding the “*Transition Package trigger port*” while it is already bonded causes the Visual Editor to crash.
  - **Workaround:** Please remove the binding to the trigger port before making a new binding.
- **State Chart:** Multiplexer port on the edge of the chart chart may run out of sequence.
  - **Workaround:** Embed the State Chart inside a Package node and relocate the multiplexer port on the Package will assure proper execution sequence.

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# iCanScript v0.9.7 (Beta #13)

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*Jan 10, 2014*

iCanScript v0.9.7 (Beta #13) is a preparation release for submitting to the Unity Asset Store. It includes a small number of fixes and compatibility adjustment for Unity v4.3.x latest API.

Enjoy !!!

## Bug Fixes:

- **Engine:** Enable Ports sourced from an uninitialized boolean port are enabled by default (they were disabled in the prior versions).

## Features & Improvements:

- Compatibility with v4.3.x of Unity:
  - Support latest Undo API;
  - Support latest Inspector GUI.

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# iCanScript v0.9.6 (Beta #12)

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*Nov 11, 2013*

iCanScript v0.9.6 (Beta #12) is a critical bug fix release for the engine resolving several possible deadlocks for visual scripts with circular dependencies. It also include additional debug capabilities and a minimal node library.

Enjoy !!!

## Bug Fixes:

- **Engine:** Fix deadlock when running with circular dependancies;
- **Engine:** Fix multiplexer port selection when involved in circular dependencies;
- **Library Tree:** Clicking the X icon clear the search string field;

## Features & Improvements:

- **New Nodes in base package:**
  - Accumulators;
  - Boolean Logic;
  - Comparaisons;
  - Choice (selection from 2 inputs);
  - Math (Add, Sub, Mul, Div, Random, FromVector, ToVector).
- **New Debug Capabilities:**
  - Frame Id and Frame Rate shown in visual editor toolbar;
  - Frame Id shown on each node when running (configurable);
  - Display of Frame Id on nodes can be enabled/disabled from Preference Panel and Visual Editor Toolbar.
- **New Package Icons:** A package icon is displayed for utility types (static classes).
- **Automatic Object Creation:** A variable of the proper type is created for nodes that require an object instance (i.e. This) but does not have one defined.

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# iCanScript v0.9.5 (Beta #11)

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iCanScript v0.9.5 (Beta #11) is a bug fix release.

Enjoy !!!

## Bug Fixes:

- **Visual Editor:** Data ports do not disappear anymore when creating a binding;
- **Running:** Resolve hang when running with one or more bindings between two or more behaviour message nodes;
- **Running:** Resolve exceptions when compiling/running nodes with a trigger port;
- **Running:** Resolve exceptions when compiling/running nodes with enable port(s);
- **Running:** Resolve exceptions when compiling/running nodes with multiplexer port(s);
- **Running:** Enable ports are now functional when running engine;
- **Running:** Trigger ports are now functional when running engine;
- **Running:** Multiplexer ports are now function when running engine.

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# iCanScript v0.9.4 (Beta #10)

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iCanScript v0.9.4 (Beta #10) is a bug fix release moving iCanScript closer and closer to stability for the first official release...

Enjoy !!!

## **New Features:**

Custom Node Installer: Decouple the user node installer from the default iCanScript installer (see User Guide for details).

## **Bug Fixes:**

iCanScript Menus: Web reference for User Guide and Release Notes are now functional.

Unity 4.2.1 Project Conversion Issue: This release was compiled using v4.2.1 and can be installed on Unity 4.2.x if you find that Unity crashes when converting your projects.

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# iCanScript v0.9.3 (Beta #9)

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iCanScript v0.9.3 (Beta #9) is the first feature complete release. It includes several new features needed to create game scripts notably support for all Unity Behaviour (MonoBehaviour) messages such as OnTriggerEnter(...), OnCollision(...). RC #1.0a is the base for the upcoming V1.0 release. It departs from the previous release and may not be compatible with project created with previous releases.

Enjoy !!!

## New Features:

- **All:** Supports all Unity Behaviour Messages.
- **All:** Supports for conditional execution using “Enable” & “Trigger” ports.
- **All:** Support for an output “this” port that can be used on instance nodes to control the execution sequence.
- **Visual Editor:** Support for multiplexer input & output port to merge the data when using conditional execution.
- **Visual Editor:** Display name of game object being edited in the window toolbar.
- **Visual Editor:** Edition of previous visual script when new selected scene object does not include a visual script.
- **Visual Editor:** Ports are now classified has either an end port or a relay port.
- **Visual Editor:** Different icons for input and output ports (in preparation for port on any edge feature).
- **Library Editor:** Icons have been updated to reflect company logos and package grouping.
- **Hierarchy Editor:** Icons are not synchronized with the user defined icons of the nodes.
- **Preference Editor:** Added configurable option for code engineering.
- ... and much much more ...

## Bug Fixes:

- **Library Panel:** Now include public fields, properties, and functions of base classes using the BaseVisibility=true option of the iCS\_Class attribute.
- **Visual Editor:** Resolve null exception when starting / stopping game engine.

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# iCanScript v0.9.2 (Beta #8)

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Release 0.9.2 (Beta #8) of iCanScript is a bug fix release. This release is compatible with projects created in v0.9.1.

Enjoy !!!

## New Features:

- **Visual Editor:** Check for updates menu item added.

## Bug Fixes:

- **Visual Editor:** Fix crash when performing Undo/Redo of newly created nodes.
- **Visual Editor:** Connections are now properly recreated after relocating a node.
- **Visual Editor:** State transition module can no longer be dragged outside transition root parent.

## Improvements:

- **Examples:** A simple light switch example is available (optional).
- **Nodes:** Basic node library is relocated into an optional unity package.

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# iCanScript v0.9.1 (Beta #7)

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Release 0.9.1 (Beta #7) of iCanScript has a fully redesign UI engine and visual script internal data representation. It will serve as the bases for all future product releases and assures forward product compatibility (missing in the previous releases). You will find that the flexibility of the visual editor is enhanced including manual repositioning of the connector ports on the appropriate node edges and that the nodes will attempt to retain the user position even when involved in collisions from unfolding / folding surrounding nodes.

Since this version will be forward compatible, you may start using it for long term projects.

Enjoy !!!

## New Features:

- **Engine:** Persistent data versioning assures future release compatibility.
- **Visual Editor:** Node position is now anchored as per user last drag operation preserving the layout in node collisions, unfolding, folding, and iconizing.
- **Visual Editor:** Flexible port re-positioning on parent edge.
- **Visual Editor:** Port layout preserved when node is iconized.
- **Visual Editor:** Node can now be moved using Shift/Alt-Shift + Arrow keys.
- **Preference Panel:** Visual editor animation can now be controlled by pixels/seconds and minimum time.
- **Preference Panel:** Visual editor animation can now be disabled/enabled.

## Bug Fixes:

- **Visual Editor:** Dropping a node near the edge of another node no longer selects the wrong parent.
- **Visual Editor:** Fix potential crash when dragging a module input port inside the parent module.

- **Preference Panel:** Now displays properly for light (standard) and dark (pro) skins.

## Improvements:

- **Visual Editor:** Port layout preserved when node is iconized.

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# iCanScript v0.8.6 (Beta #6)

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Release 0.8.6 (Beta #6) of iCanScript is a bug fix release. The main area of improvement include state chart diagrams in the visual editor and general hierarchy panel manipulations.

Enjoy !!!

## New Features:

- **Visual Editor:** Multiplexer port icon visual improvement.
- **Visual Editor:** Transition ports are now named “fromState->toState”.
- **Visual Editor:** Manual port relocation of state transition is now possible.
- **Visual Editor:** Dragging a port inside a module will auto-create an instance node of the proper type.
- **Visual Editor:** Retain value when publishing a port to a parent module.
- **Visual Editor:** Using the right mouse click (move) with no selected node or port now pans the viewport.
- **Hierarchy Panel:** Display value port icon for non-connected input data ports.
- **Hierarchy Panel:** Changing a port or node name will immediately be showed in the visual editor.
- **Library Panel:** Display value port icon for input ports of data processing nodes.

## Bug Fixes:

- **Visual Editor:** Fix null reference when focusing on selected object without a selected object.
- **Visual Editor:** Center on initial Behaviour, Module Library and State Chart Library node creation.
- **Visual Editor:** Newly created transitions are now properly displayed.
- **Visual Editor:** Resolve freezing/crash on state chart transition creation.
- **Visual Editor:** State nodes are now always visible after creation.

- **Visual Editor:** Removing annoying “No object picked” debug message.
- **Visual Editor:** Transition port names are no longer displayed.
- **Visual Editor:** State transition ports preserve their positions when an iconized state is folded or unfolded.
- **Visual Editor:** Fix inconsistent behaviour of texture and game object drag and drop operations.
- **Inspector Panel:** Fix annoying “ArgumentException” error when the selected node or port is modified.
- **Hierarchy Panel:** Resorting is disabled when changing port / node name to avoid losing keyboard focus.
- **Hierarchy Panel:** Pressing the escape key while editing a port or node name will revert to the original name.
- **Hierarchy Panel:** Pressing the return key exists a port or node name edition.

## Improvements:

- **Visual Editor:** De-clutter by removing the name label for multiplexer port inputs.
- **Visual Editor:** Remove auto-creation of output this for instance nodes.
- **Visual Editor:** Preserve connection shape on state port relocation.
- **Preference Panel:** Change the default entry state node colour to an orange-beige.
- **Hierarchy Panel:** Ports and nodes with unchangeable names are now displayed in orange-beige.

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# iCanScript v0.8.5 (Beta #5)

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Release 0.8.5 (Beta #5) of iCanScript focuses mainly on performance improvements for the visual editor.

Previous users of iCanScript will notice faster redraw and less latency when dragging ports and nodes. Users will also notice that it is much easier to drag nodes into another node (reparenting).

The installation has been simplified by embedding the gizmos into the Unity package and automatically installing the iCanScript gizmo on first usage of iCanScript.

Enjoy !!!

## New Features:

- **Installation:** The gizmo file is automatically installed into the project Gizmos folder.
- **Preferences Panel:** Zoom speed is now user configurable.
- **Preferences Panel:** Version information is displayed.
- **Visual Editor:** The Graph Editor has been renamed to Visual Editor.
- **Visual Editor:** Configuration to show runtime port values now available in toolbar.

## Performance Improvements:

- **Visual Editor:** Eliminate periodic refresh.
- **Visual Editor:** Circular ports and nodes are drawn 200% faster.
- **Visual Editor:** Remove mouse delay latency.
- **Library Panel:** Eliminate periodic refresh.

## Bug Fixes:

- **General:** Links to iCanScript web site for user manual, programmer guide, and customer request are now functional.



- **Preferences Panel:** Setting the Show Runtime Port Values in the preference panel to false will prevent the refresh of the visual editor when the game is running.
- **Preferences Panel:** Runtime port value refresh is turned off by default to avoid interfering with performance of game. It can be turned on in the preference panel.
- **Visual Editor:** The refresh period of the preference editor for the runtime port value is now applied.
- **Visual Editor:** Zooming from the slider in the visual editor toolbar now uses the centre of the window as the scale pivot.
- **Visual Editor:** Zooming speed is now linear.
- **Visual Editor:** Properly show floating nodes resulting from copy/paste operation.
- **Visual Editor:** Scroll zone on edge of editor when dragging is now available for all zoom factors.
- **Visual Editor:** No iCanScript object selected notification is now immediately shown on object selection.
- **Visual Editor:** Shift-Enter on a selected function node now minimizes (iconizes) the node.
- **Visual Editor:** Move node to new parent node is now easier by using the mouse pointer as the drop position.

## Improvements:

- **Library Panel:** Port icon has been upgraded to use anti-aliasing.
- **Hierarchy Panel:** Port icon has been upgraded to use anti-aliasing.

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# iCanScript v0.8.4 (Beta #4)

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iCanScript v0.8.4 is a critical bug fix release that resolves all known drag and drop erratic behaviours from/to the graphic editor window. It includes the following:

## Critical Bug Fixes:

- Dragging a game object from the scene hierarchy tree into the iCanScript graphic editor window will always succeed given proper node nesting.  
Dragging a class node or function node from the iCanScript library into the iCanScript graphic editor window will always succeed given proper node nesting.
- Dragging a prefab iCanScript library object from the project tree into the iCanScript graphic editor window will always succeed given proper node nesting.

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# iCanScript v0.8.2 (Beta #3)

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iCanScript v0.8.2 (Beta #3) is a performance improvement release that includes the following changes:

## Bug Fixes:

- Animation glitches in graphic view are no longer present when minimizing, folding, and maximizing nodes with multiple levels of nesting.

## Performance Improvements:

- Graphical display performance now allows for the creation and manipulation of large scripts.
- Library search performance has been significantly improved. Note that the search will be active when at least two characters have been typed in the search field.

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# iCanScript v0.8.1 (Beta #2)

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iCanScript v0.8.1 includes some minor bug fixes as well as a redesigned User Preference Utility Window.

## Bug Fixes:

- Remove Unity engine nodes that are only available in the Pro version. Pro only functionality will be added in later releases.
- The five menu items for the iCanScript windows have been relocated under Window/iCanScript.

## New Preference Utility window:

- The iCanScript preference utility window can now be launched from Window/iCanScript/Preference.
- The user preference settings are saved per Unity installation and are applied to all loaded iCanScript graphs.
- User preference settings on a per graph basis have been removed.

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# iCanScript v0.8.0 (Beta #1)

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First public release. iCanScript v0.8.0 includes all of the core features to design scripts for gameplay and mission control logic.

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