

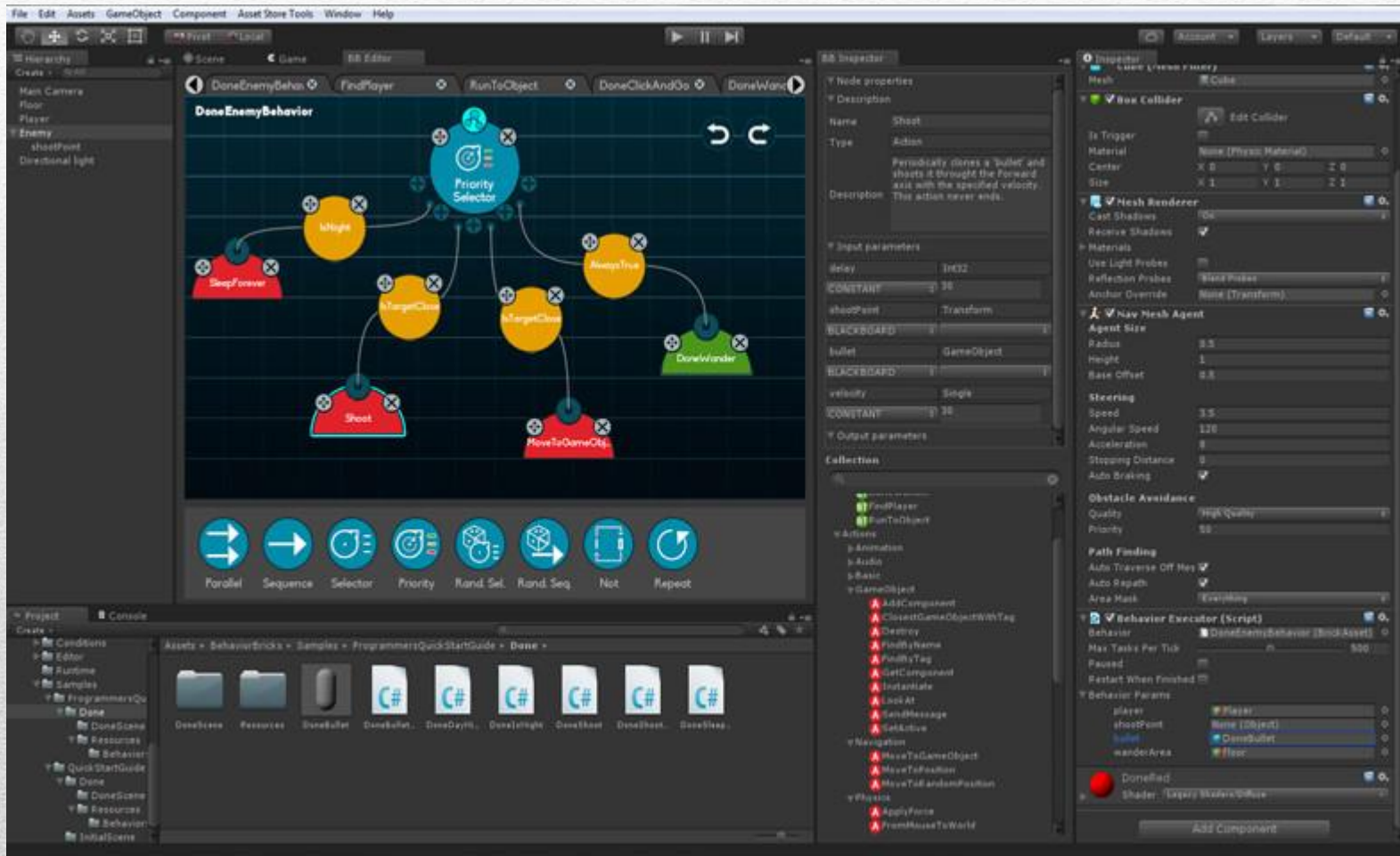


# Behavior Trees Unity y Unreal

**Javier Lucas Gómez**

Programador de Inteligencia Artificial  
Lead of Automation  
MercurySteam

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- Sin implementación propia
- Se pueden encontrar diversos paquetes del AssetStore.

Destacaremos dos:

Behavior Bricks, gratuito, y  
Behavior Designer, de pago





unity Asset Store

3D

2D

Add-Ons

Audio

Templates

Tools

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All Assets ▾

Type here to search assets



Plus/Pro

Impressive New Assets

Bundle Of The V

Home > Tools > Visual Scripting > Behavior Bricks



PADAONE GAMES

## Behavior Bricks

★★★★★ ▾ 33 user reviews

FREE

Add to My Assets

### Popular Tags

behavior trees

Edit tags

Report tags

Behavior Bricks (BB) is a state-of-the-art engine for Behavior Trees (BTs) along with an intuitive visual editor. Behavior Bricks has been designed with three main goals in mind: efficiency, extensibility, and reusability. As a result, Behavior Bricks includes some \*unique features\* not to be found in other tools for Behavior Trees available in the Asset Store. State-of-the-art, unique features, and free, how is that even possible? Behavior Bricks is the showcase of the work from a [research group](http://gaia.fdi.ucm.es/research/bb/) from the [Complutense University of Madrid](http://gaia.fdi.ucm.es/research/bb/) in Spain. We work on new methods for creating artificial intelligence (AI) for non-player characters (NPCs) in games. Check our web page to find research papers related to machine learning and behavior trees, and take a glimpse of what the future may bring to Behavior Bricks:

For complete documentation, examples and information visit:  
<http://bb.padaonegames.com>

=== Parameterized trees ===

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### Requirements

Editor Extension (one license per seat)

### Package contents

1.1 MB

Total file size

1.1 MB

Number of files

224



Package Preview

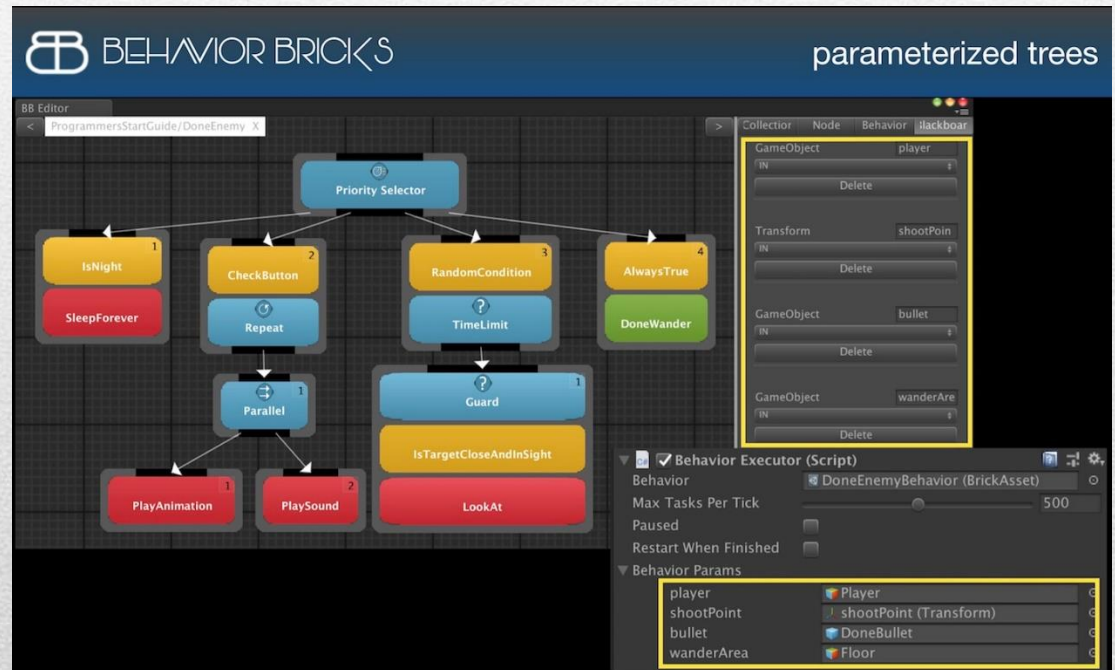
Feedback





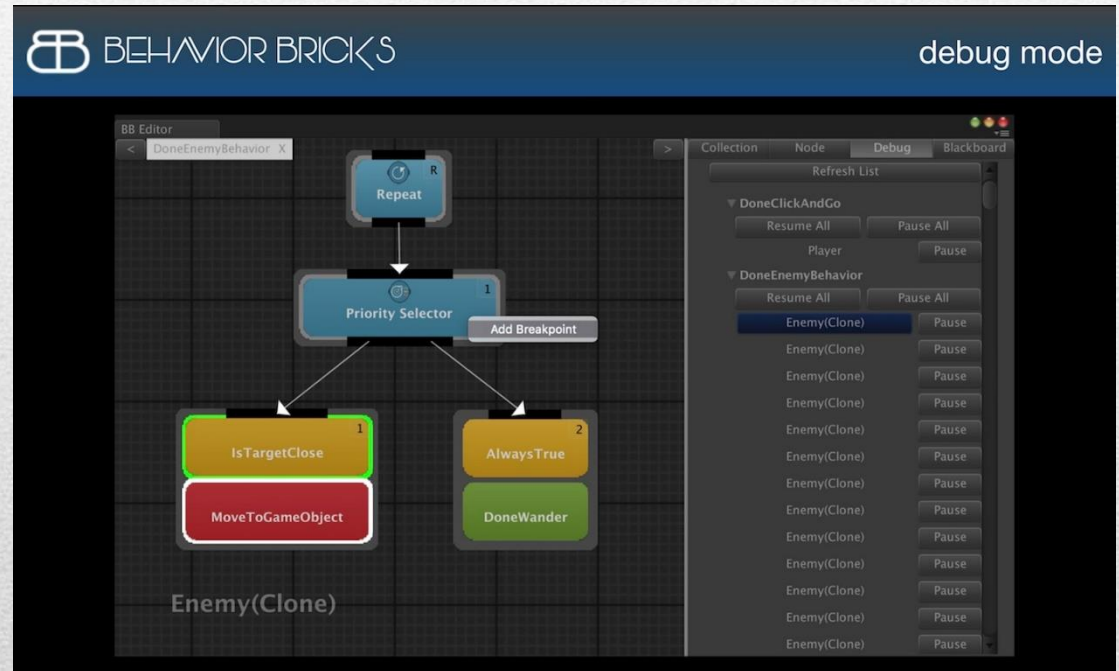
# BEHAVIOR BRICKS

- **Editor visual** integrado en Unity
- Diseñado para ser **eficiente**: Nodos suspended
- El número de nodos a ejecutar en un tick se puede controlar
- Permite el manejo de **árboles de gran tamaño**





- **Nodos estandar + Nodos específicos:** manejo de navegación, NavMeshes, animaciones y demás elementos propios de Unity.
- Posibilidad de **añadir** nuevas acciones y condiciones en **C#**
- Sistema de **depuración** integrado



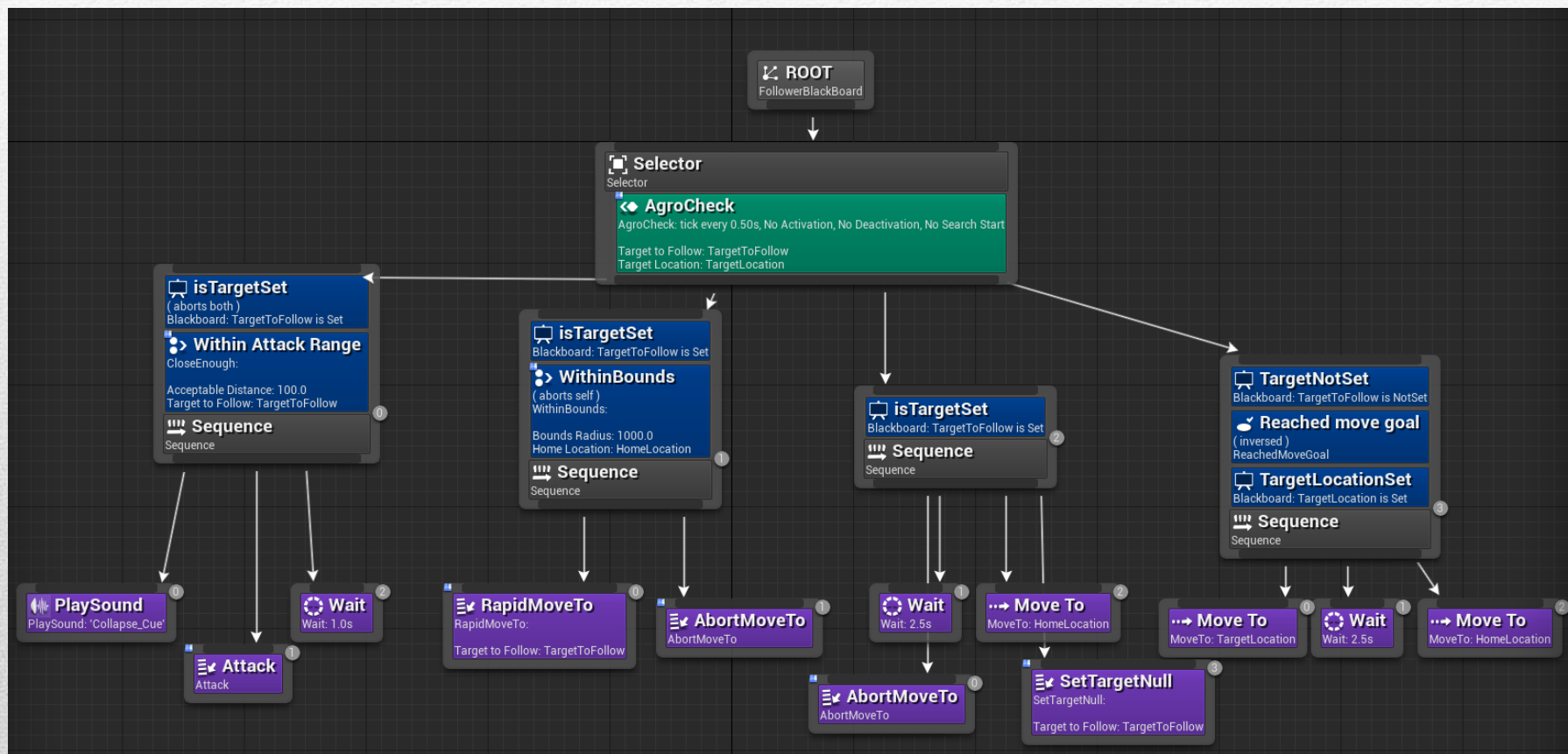


The screenshot shows the Unity Asset Store interface. At the top is the Unity logo and navigation icons. Below is a search bar with the text "Search...". The main content area features the "Behavior Designer" extension by Opsive. The extension's title "Behavior Designer" is in large white text, followed by "Editor Extensions/Visual Scripting" and "Opsive". It has a 5-star rating from 427 users and is priced at \$75. A green "Buy now" button is visible. Below the button are social media icons for GitHub, Twitter, Facebook, Steam, and a generic icon. A note states: "This extension requires one license per seat. Requires Unity 4.6.0 or higher." To the right of the text is a visual representation of the Behavior Designer system, showing a hierarchy of nodes: a "Sequence" node at the top, branching into a "Patrol" node (marked with a green checkmark) and a "Selector" node. The "Selector" node branches into a "Pursue" node (marked with a red X) and a "Search" node. The background of the visual representation is a dark grid with some 3D cubes in the top right corner.

- **Editor visual** con sistema de **depuración** integrado
  - **Nodos estandar + Nodos específicos:** manejo de navegación, NavMeshes, animaciones y demás elementos propios de Unity.
-



# UNREAL ENGINE







**UNREAL  
ENGINE**

- **Implementación propia** y bien integrada en el motor
  - Acoplada a los **BluePrints**, se puede llamar un BT desde un Blueprint y viceversa
  - Permite **controlar las IA's** a todos los niveles.
  - Integra en los propios nodos un sistema de **decoradores**.
  - Condiciones no son nodos hoja sino decoradores. **Argumentan mejor legibilidad y mejor orientación** a eventos en el árbol.
-



**UNREAL  
ENGINE**

## Servicio vs Task

- **Servicio**
    - Nodo especiales para registrar callbacks para ejecuciones periódicas
    - Se ejecutan sobre los nodos composite mientras estos se estén ejecutando y modifican el estado de la IA
  - **Task**
    - Hacen “el trabajo”: se ejecutan y al terminar devuelven éxito o fallo para que los composites a los que estén conectadas actúen en consecuencia
-





**UNREAL  
ENGINE**

## Simple Parallel

- No es exactamente un Parallel: Ejecuta una Task y un árbol a la vez
  - Evita subárboles concurrentes
  - El “background branch” se ejecuta en paralelo a la Task
  - Tiene políticas de finalización: esperar a que acabe el Task o el subárbol
-

# Referencias

<https://assetstore.unity.com/packages/tools/visual-scripting/behavior-bricks-74816>

<https://docs.unrealengine.com/4.27/en-US/InteractiveExperiences/ArtificialIntelligence/BehaviorTrees/>

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