



About

absent-variables is a completely free and open-source dialogue system designed specifically for [Unity](#). If you want to contribute, please go to [Contributing](#) section. I'd be really happy to see you helping me with this!

In this documentation, you will learn how to use, modify and extend the system.

You can start learning by reading [Installing](#) or [Basic Setup](#).



About

absent-variables is a completely free and open-source dialogue system designed specifically for [Unity](#). If you want to contribute, please go to [Contributing](#) section. I'd be really happy to see you helping me with this!

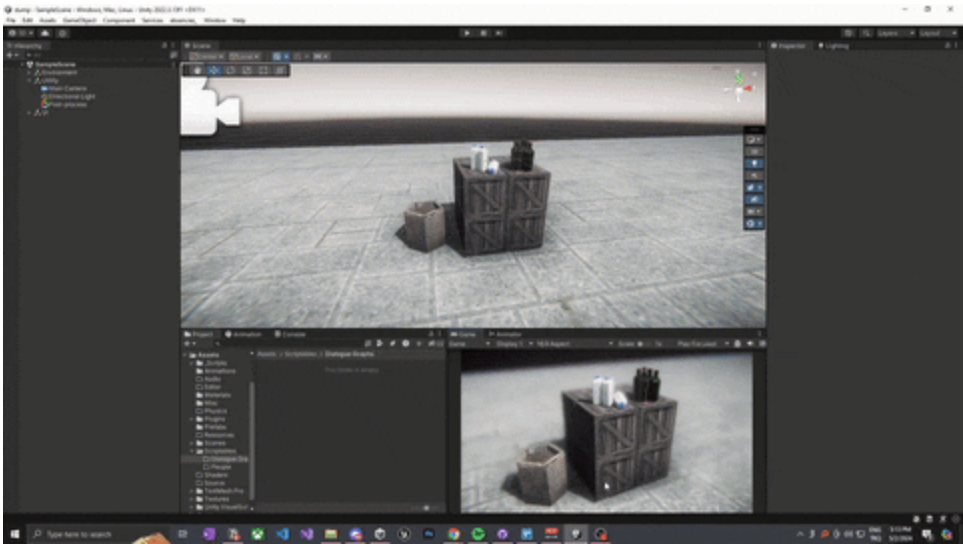
In this documentation, you will learn how to use, modify and extend the system.

You can start learning by reading [Installing](#) or [Basic Setup](#).

Basic Setup

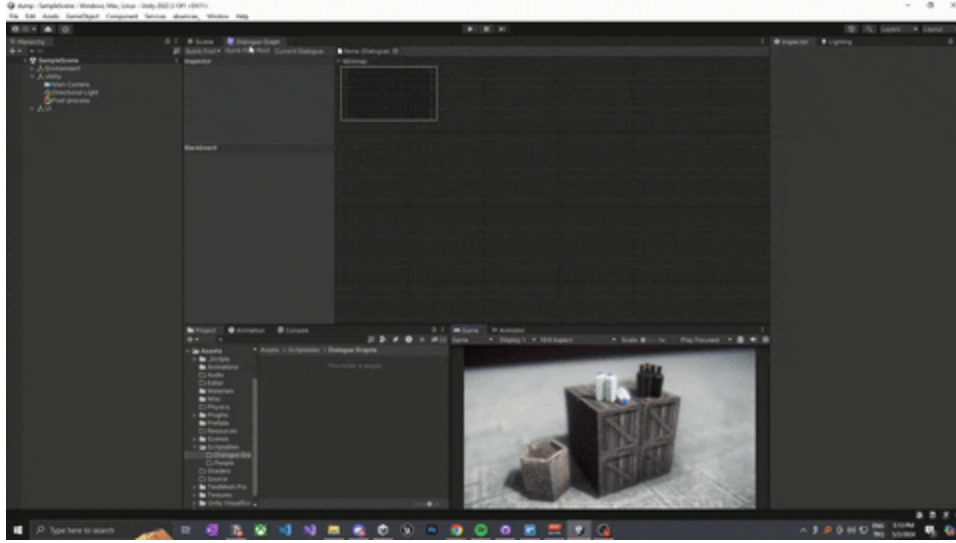
In this section of the documentation, you will see how to use this tool's editor in a pretty basic way. Let's start!

Opening up the window



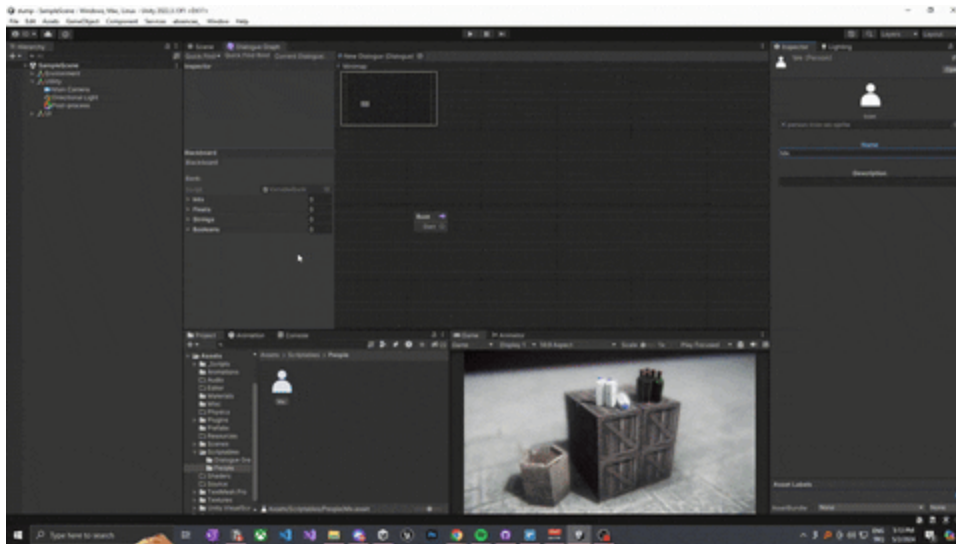
You can open up the window via the: '**absencee_/absent-dialogues/Open Dialogue Graph Window**' menu option on the Unity's toolbar.

Creating a graph



You can create a dialogue graph via the: '**absencee_/absent-dialogues/Create Dialogue Graph**' menu option on the Unity's toolbar.

Adding people to the conversation



You can add a person to a dialogue by selecting the dialogue and adding the people to the list in the inspector.

What's Next?

Now you know the basics. You can go to [Getting Started](#) to continue reading about the tool itself. Or you can go to [Demos and Examples](#) to have a look at example use cases of the tool.



Demos and Examples

In this section, you will see example use cases of this tool. Let's start!

I'll also be uploading videos on [YouTube](#) about this tool in the future.

The Built-in Demo

It takes place at the '**Plugins/absencee_/absent-dialogues/Demo**' directory, under the **Assets** folder of your current unity project.

You can open up the '**./TMP/Demo_TMP.unity**' scene and press play to give it a try.

More?

I'll be adding new demos and examples here as I develop games using this tool. You can jump to [Getting Started](#) go on.



Contributing

You can contribute via forking or branching the [repository](#) of this package. Please be clear with your commit descriptions.

Or you can just point out the issues of the package via the [issues](#) tab of github instead of contributing it directly.

I appreciate any contribution from small to big, I thank you for all you've done!

Have a nice day!



Mechanism

In this section of the documentation, I'll be explaining you the base mechanism this tool relies on. I highly recommend you to read this section if you want to **contribute** to this tool or just want to **expand** the tool for your own use. And also, before starting, I recommend you to read the [Basic Setup](#) section before reading this one. Let's give it a go!

The Graph



Imgur Image

Here is the *demo* graph that comes with the tool itself. As you can see, there are **nodes**, a **VariableBank**, and an **inspector**. You will be learning more about these in the further pages, so I won't explain all of them now.

Instead, I will be covering the **whole concept** of this tool's working principle in a superficial way.

So, when you create a graph, you create a new scriptable object called a **Dialogue**. And that dialogue comes with its own another scriptable object, and that one's called the **Blackboard VB**. Blackboard VB is the same thing with the **VariableBank**, it just has a special name for itself.

The only things you need to know about nodes for now is: they have reference the nodes connected to them by the **right-side**. So the flow is one-way only. The only node that breaks this rule is the **Goto Node**.



Imgur Image

And as you can see, all of the nodes that you create also gets created as an asset under the dialogue you've created.

As you may noticed, the **RootNode** got created by itself, with the dialogue. It is because the root node is a must-have node per dialogue. So, don't try to delete it.

Now you know that everything is stored as **scriptable object** assets on the disk. Let's see when you press play.

The Runtime System



Image

Here is the demo graph again, but it is on the flow (which means it is used by a dialogue instance).

The node with the **red** outline is the current node that gets displayed on screen, while the **gray** outliend ones are the 'already seen' ones.

But as you can notice from the dialogue field at he top of this window, this is not our original '**Demo.asset**' dialogue file. This is a **clone** dialogue.

Well that's how this system works. When you're using a **Dialogue Player**, it clones the dialogue you referenced on the construction.

The purpose with this is to prevent you from losing any data on the flow. None of the changes you've made will write to the disk, they will stay on the memory.

You can select a game object with a **Dialogue Instance** attached in order to see it's cloned dialogue live.

The Dialogue Player

Dialogue Player is the class responsible for using a dialogue. What it does is pretty simple.

1. **Clone** the **referenced dialogue** (when constructor gets called).
2. Let you progress with the '**Continue(...)**' function.
3. Let you decide what to do with the current **state**, and the **data** of the current node.

And that's it!

Dialogue Player does not perform anything by itself. It only updates it's state in order for you to know what is going on with the flow.

I highly recommend reading the API Documentation of Dialogue player for further information about the functions and the state of it.

As said earlier, changes made during play mode (or in-game) **does not get saved by default**. So, you can write your own save logic over it, or use my [absent-saves](#) package.

What's Next?

This section is ended. Go to [Nodes](#) to continue.



Mechanism

In this section of the documentation, I'll be explaining you the base mechanism this tool relies on. I highly recommend you to read this section if you want to **contribute** to this tool or just want to **expand** the tool for your own use. And also, before starting, I recommend you to read the [Basic Setup](#) section before reading this one. Let's give it a go!

The Graph



Here is the *demo* graph that comes with the tool itself. As you can see, there are **nodes**, a **VariableBank**, and an **inspector**. You will be learning more about these in the further pages, so I won't explain all of them now.

Instead, I will be covering the **whole concept** of this tool's working principle in a superficial way.

So, when you create a graph, you create a new scriptable object called a **Dialogue**. And that dialogue comes with its own another scriptable object, and that one's called the **Blackboard VB**. Blackboard VB is the same thing with the **VariableBank**, it just has a special name for itself.

The only things you need to know about nodes for now is: they have reference the nodes connected to them by the **right-side**. So the flow is one-way only. The only node that breaks this rule is the **Goto Node**.



And as you can see, all of the nodes that you create also gets created as an asset under the dialogue you've created.

As you may noticed, the **RootNode** got created by itself, with the dialogue. It is because the root node is a must-have node per dialogue. So, don't try to delete it.

Now you know that everything is stored as **scriptable object** assets on the disk. Let's see when you press play.

The Runtime System



Here is the demo graph again, but it is on the flow (which means it is used by a dialogue instance).

The node with the **red** outline is the current node that gets displayed on screen, while the **gray** outliend ones are the 'already seen' ones.

But as you can notice from the dialogue field at he top of this window, this is not our original '**Demo.asset**' dialogue file. This is a **clone** dialogue.

Well that's how this system works. When you're using a **Dialogue Player**, it clones the dialogue you referenced on the construction.

The purpose with this is to prevent you from losing any data on the flow. None of the changes you've made will write to the disk, they will stay on the memory.

You can select a game object with a **Dialogue Instance** attached in order to see it's cloned dialogue live.

The Dialogue Player

Dialogue Player is the class responsible for using a dialogue. What it does is pretty simple.

1. **Clone** the **referenced dialogue** (when constructor gets called).
2. Let you progress with the '**Continue(...)**' function.
3. Let you decide what to do with the current **state**, and the **data** of the current node.

And that's it!

Dialogue Player does not perform anything by itself. It only updates it's state in order for you to know what is going on with the flow.

I highly recommend reading the API Documentation of Dialogue player for further information about the functions and the state of it.

As said earlier, changes made during play mode (or in-game) **does not get saved by default**. So, you can write your own save logic over it, or use my [absent-saves](#) package.

What's Next?

This section is ended. Go to [Nodes](#) to continue.



Nodes

Nodes are the base elements of this tool. As I said, this is a *node based* dialogue system. So, In this section of the documentation, you will get a brief explanation of all node types included by default in this tool.

Root Node



Root Node is automatically created when you create a new graph. This node acts as a starting point in the graph. Because of that, its **UNDESTROYABLE!!!**.

Dialogue Part Node



Dialogue Part Node works similar to the **Root Node**. This is also a starting point node **BUT** it is not the starting point of the graph itself. It is a starting point of the node chain it is connected to.

Properties:

- *(str.)* **Dialogue Part Name:** This property is used by the **Goto Node** in order to find and teleport to this node. Read [Goto Node](#) for more details.

Goto Node



Goto Node is used to separate the node chains to have a more clear graph window. The only mission of this node is to find the target **Dialogue Part Node** and teleport to it.

Properties:

- *(str.)* **Target Dialogue Part Name:** **Goto Node** finds a **Dialogue Part Node** which has it's target property matchin to this property and teleports to it.

Fast Speech Node



Fast Speech Node is one of the two speech nodes in this tool. This node is used to display a speech that has no options.

Properties:

- *(Person)* **Person:** The person who speaks.
- *(str.)* **Speech:** Speech will be displayed.
- *(AdditionalSpeechData)* **Additional Speech Data:** This property contains some extra data that can be used when the speech gets displayed.

Decision Speech Node



Decision Speech Node does the same thing with the **Fast Speech Node**. The only difference between them is that the **Decision Speech Node** also has options the player acn choose from.

Properties:

- *(Person)* **Person:** The person who speaks.
- *(str.)* **Speech:** Speech will be displayed.
- *(AdditionalSpeechData)* **Additional Speech Data:** This property contains some extra data that can be used when the speech gets displayed.
- *(List)*
Options: Options will be displayed.

Option Block



Option Block is not a Node itself. It is used to display the options of a **Decision Speech Node**. Text written in the text field of this block will be displayed as an option.

Condition Node



Condition Node lets you to progress in different ways in the dialogue depending on some conditions. The conditions are based on the **Variable Comparers** like the ones in the **Option Block**.

Properties:

- (*ProcessorType*) **Processor:** Lets you select the way comparers work.
- (*List*) **Comparers:** List of the entire comparers used to process the output boolean.

Action Node



Action Node is pretty self explanatory. It invokes some actions when it gets *reached* by the dialogue.

Properties:

- (*List*) **VB Actions:** Actions that depend on my **absent-variables** package. These can be used to set some variables which can be used troughout the game.
- (*UnityEvent*) **Unity Events:** UnityEvents that **DO NOT** accept scene objects.

There is also a property of **Action Node** called **CustomAction()** which is a virtual method. And also **Action Node** one of the two node subtypes which you can derive new subtypes from (they aren't *sealed*). So, you can derive from **Action Node** to have a node that has some more specific actions to perform.

StickyNote Node



StickyNote is not really a node. It is derived from the node base type and that's all. It has no effect on the dialogue flow. But you can use it to leave some useful notes in the graph view.

Title Node



Title Node is nearly the same as **StickyNote**. It is just bigger and easy to see.

What's Next?

This section is ended. Go to [Components](#) to continue.



Components

Components are essential when you're working with a tool which is integrated right into unity. In this section of the documentation, you will get a simple explanation of built-in components that come this tool.

Dialogue Displayer



Dialogue Displayer is the only built-in way of displaying a dialogue on screen. But you can come up with your own solutions with the knowledge from the [mechanism](#) section.

Dialogue Displayer is a singleton! Use it with this knowledge.

Option Text



Option Text is a needed component when working with the built-int **Dialogue Displayer**. It is simply responsible for the *clicking* action, *index* holding and of course, displaying the option.

Dialogue Instance is designed to work with the **Dialogue Player**. You can read [Mechanism](#) page for more details about that class.

Dialogue Instance



Dialogue Instance is the best way to play a dialogue in your game. It is pretty straight-forward to use. All you have to do is: attach, drag, press play. And you're done!

The *player* section below in the inspector is only visible in **play mode**.

Dialogue Sounds Player



Dialogue Sounds Player is the *extension* component responsible for playing sounds from an audio source, using the information from **AdditionalSpeechData**.

Dialogue Animations Player



Dialogue Animations Player is the *extension* component responsible for managing animator controller over a dialogue, using the information from **AdditionalSpeechData**

Dialogue Input Handler (Legacy)



Dialogue Input Handler (Legacy) is the *extension* component responsible for handling the input comes from player during the dialogue. It is marked **legacy** because it only works with the old input system of unity.

What's Next?

Well, you know everything you need to know about this tool right now. But if you want to modify it for your own use, you can go to [Advanced](#) to see how you can do it easily.



[Advanced](#) / [Custom Nodes](#)

[Edit this page](#)

Custom Nodes

In this section of the documentation, you will learn how to create your own custom nodes. Let's start.

What's Next?

This section is ended. Go to [Custom Dialogue Extensions](#) to continue.



[Advanced](#) / [Custom Nodes](#)

[Edit this page](#)

Custom Nodes

In this section of the documentation, you will learn how to create your own custom nodes. Let's start.

What's Next?

This section is ended. Go to [Custom Dialogue Extensions](#) to continue.



Custom Dialogue Extensions

In this section of the documentation, you will learn how to write your own dialogue extensions. Let's start.

```
#if UNITY_EDITOR
    [UnityEditor.MenuItem("CONTEXT/DialogueInstance/Add Extension/EXTENSION_NAME")]
    static void AddExtensionMenuItem(UnityEditor.MenuCommand command)
    {
        DialogueInstance instance = (DialogueInstance)command.context;
        instance.AddExtension<EXTENSION_TYPE>();
    }
#endif
```

What's Next?

You've done it! You've read all the way to the end, mate. I really appreciate you. Know you don't just know how this tool works in a detailed way but you also know how you can modify it.

There is nothing else you need to read. But if you want to know how you can publish any modifications you've made on the tool to the open-source community, I'd suggest you reading [Contributing](#) section.

And again, thank you for reading this all the way!

Have a nice day!



Roadmap

In this section of the documentation, you will see some details about the past and the future of this project.

Latest Version

- Small bugs fixed.
- Editor window consistency is far better from now on.
- Restricted the usages of VariableBanks with nodes for a healthier structure.

In the Next Version

- Dialogue editor refresh automation.
- Stabler graph view.
- Grid snapping fix (will be added to the docs).
- Bugfix of DialogueInputHandler (Legacy) checking for input event if the instance is not in the dialogue.
- Rewrite of the Option system (now it supports multiple comparers for visibility).
- Switch to the latest version of absent-variables (**not backwards capable**).
- Added RuntimeSelectionHandler to handle the runtime displaying of the graph.
- Refined code.
- Custom documentation for components and nodes.
- More and better API documentation.

Already on the Plans

- Rewriting the GotoNode and getting rid of string prone code.
- Localization for dialogues.
- Better documentation for API and the editor members.

- New images and gifs for the documentation.
- New icons for the components, nodes and etc.
- An extension based on the absent-saves package.

In the Future (Without Certainty)

- Import/Export/Backup support.
- Integration with some other applications.
- Generic option feature.
- Dialogue override graph feature.



Namespace com.absence.dialoguesystem

Classes

Dialogue

The scriptable object derived type that holds all of the data which is essential for a dialogue.

DialogueAnimationsPlayer

A small component which is responsible for playing the animations (if there is any) of the dialogue instance attached to the same game object.

DialogueDisplayer

A singleton with the duty of displaying the current dialogue context. Written for the Unity UI package. Not compatible with the UI Toolkit.

DialogueExtensionBase

This is the base class to derive from in order to handle some custom logic over the system.

DialogueInputHandler_Legacy

A small component with the responsibility of using the input comes from player (uses legacy input system of unity) on the dialogue.

DialogueInstance

Lets you manage a single `DialoguePlayer` in the scene easily.

DialogueOptionText

A small component that manages the functionality of an option's drawing and input.

DialoguePlayer

Lets you progress in a dialogue easily.

DialogueSoundsPlayer

A small component which is responsible for playing the sounds (if there is any) of the `DialogueInstance` attached to the same gameobject.

Enums

[DialoguePlayer.PlayerState](#)

Shows what state the dialogue player is in.

Delegates

[DialogueInstance.SpeechEventHandler](#)

The delegate responsible for handling events directly about speech.