



Socket.IO V3 / V4 Client Asset Documentation



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If you happen to have any issues, please write an email to support AT firesplash DOT de and we will be happy to help!

This asset is used to connect a unity project to a server (or multiple servers) using Socket.IO middleware. The library provides the most important methods for this. It was not and will never be a try to implement every single aspect but the library is extendable as we provide the full source code.

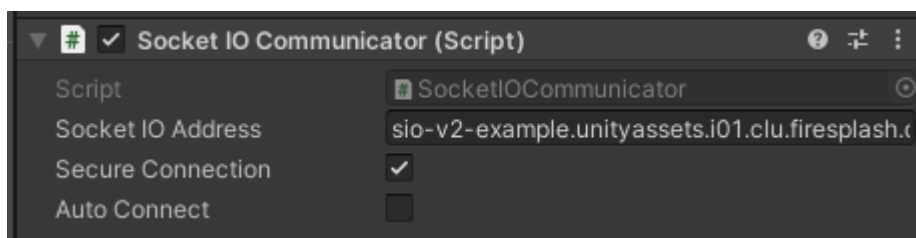
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After all we would love to get your honest review on this asset on the asset store when you got some experience with it. This helps us out a LOT!

Set Up

Our asset works quite straight-forward. Just create a GameObject and add the “Socket IO Communicator” component to it. Enter all detail used for connecting into the fields. The Address has to be provided without protocol prefix or any folders.

S.IO-Namespaces are not supported by this library.



Whenever possible you should not use the “Auto Connect” feature as most likely you will want to setup the listeners (“On”) before connecting. See the example for a best practice setup.

If you want to connect to more than one Socket.IO server, you have to use one GameObject per connection and you need to name them different. If you use two GameObjects identically named with SocketIOCommunicator Component in WebGL builds, it will result in unexpected behavior because the Socket.IO implementation depends on unique names from javascript (JSLib) side.

This is a Unity limitation.



Socket.IO Protocol version compatibility

For general version compatibility please refer to this link: <https://socket.io/docs/v4/client-installation/index.html>

Compatibility matrix from our side:

Server Version -> v Asset Version v	v1.x	v2.x	v3.0.x	v3.1.x	v4.x
Asset V2	Red	Green	Red	Yellow	Yellow
Asset V3/V4	Red	Red	Green	Green	Green

Green = Full compatibility (within the general limitations of this asset according to this documentation)

Yellow = Compatible via 'allowEIO3' flag and **NOT officially supported** – Might break at any time.

Red = incompatible

If your Socket.IO asset v2 is compatible to Socket.IO Server v4, why was this still a good investment? Why the higher price?

The Socket.IO v2 asset only covers the very basic portions of the protocol in native mode. For example reconnects are not automated, most of the status events are not emitted to your application and after all the compatibility layer is not a future-safe investment.

This Asset version implements the most important events (reconnect, connect_error, reconnect_error and so on) as well as auto reconnecting (Note: a **connect_error** causes **NO reconnect** while any connection drop during a running session does)

Further Socket.IO v3/v4 has a way better timeout/ping handling and is considered more stable. This is only the case when both sides are v3/v4

The higher price is applied as v3/v4 support needed huge changes in the code base and lots of research. The undelaying protocol has significantly changed since v2 which is also the reason why v2 and v3/v4 are not compatible (without the compatibility flag which actually degrades v3/v4 servers to v2)

After all we provide our customers a discounted upgrade path, so at any time customers will only pay the extra work, and do not have to buy a complete second asset.



Usage

We provide a well-documented example in our asset. Please review the code to get a closer understanding.

The SocketIOCommunicator Component provides access to a singleton “Instance” which contains the actual Socket.IO implementation specific to the platform. You use this to interact with the library.

Further in runtime it will create an object called “SIODispatcher” which is a helper for running everything thread safe. This component is used to enqueue actions to be run on the main thread.

The following methods are available:

```
void Instance.On(string eventName, Callback(string payloadData));
```

Used to subscribe to a specific event. The callback will be executed everytime when the specific event is received.

The callback contains a string. This is the data sent from the server, either a stringified JSON object (if the data was a json object) or a plain text string.

If the server sent no payload, the string will be null.

Example:

```
sioCom.Instance.On("WhosThere", (string payload) =>
{
    Debug.Log("Data received: " + payload);
}
);
```

```
void Instance.Off(string eventName, Callback);
```

Used to remove the subscription to an event.

Example:

```
sioCom.Instance.Off("WhosThere", WhosthereHandlerMethod);
```

```
void Instance.Emit(string eventName[, Callback(string payloadData)]);
```

Used to send an event to the server containing an optional payload.

If the payload is a valid JSON stringified object, the server will receive it as a JSON object.

Example:

```
sioCom.Instance.Emit("ItsMe", "Hello World");
```



```
void Instance.Connect()
```

When Auto-Connect is disabled (best practice), this call connects to the server.

Example:

```
sioCom.Instance.Connect();
```

```
void Instance.Close()
```

Closes the connection to the server

Example:

```
sioCom.Instance.Close();
```

```
bool Instance.IsConnected()
```

Returns a Boolean which is true if the library is currently connected to the server.

Example:

```
while (sioCom.Instance.IsConnected()) {  
    sioCom.Instance.Emit("KnockKnock");  
    //Please don't do this. That's evil 😏  
}
```