# Foundation Messenger (v4.0) 3/6/2015

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The Messenger is a static application service for relaying events (messages) in a loosely coupled way. Any object may be "Published" through the messenger and handled by methods (or coroutines) through the app.

- Support for objects, structs, enums and interfaces
- Support for caching. This allows for publishing then subscribing and then receiving a
  message in that order. This is useful for one time messages like authentication.
- Use the IMessengerObject interface to add a Publish() extension method to your message.
- Supports [Subscribe] annotation. Using this annotation unlocks the Subscribe(object)
  helper method. This helper method allows for the subscribe of all decorated methods
  automagically.
- Support for coroutines event handling.

# Setup

Make sure the files exist in your project.

## Use

#### **Subscribing**

Subscribing is the wiring of methods to the messenger. Methods must take a single argument of the message type they are handling. When a message of the appropriate type is publish the method will be called.

```
public class MyHandler: MonoBehaviour
{
    void Awake()
    {
        // Subscribe using the [Subscribe] annotation
```

```
Messenger.Subscribe(this);
        // Subscribe manually
        Messenger<MessageType>.Subscribe(MyHandler);
        // Subscribe manually
        Messenger<MessageType>.SubscribeCortoutine(MyCoroutineHandler);
   }
   void OnDestroy()
   {
        // Unsubscribe using the [Subscribe] annotation
        Messenger.Unsubscribe(this);
        // Unsubscribe manually
        Messenger<MessageType>.Unsubscribe(MyHandler);
        // Unsubscribe manually
       Messenger<MessageType>.UnsubscribeCortoutine(MyCoroutineHandler);
   }
    [Subscribe]
    public void MyHandler(MessageType arg);
    [Subscribe]
   public IEnumerator MyCoroutineHandler(MessageType arg);
}
```

### **Publishing**

Publishing is the sending a message to subscribed members.

```
public class MyPublisher: MonoBehaviour
{
    void Awake()
    {
       var message = new MessageType();

      // publish using the IMessengerObject Extension Method message.Publish();

      // publish Manually
      Messenger.Publish(message);
}
```

## Caching

Messages may be cached. When cached the message will be saved and issued to late subscribers.

```
// Cache the message
[CachedMessage]

// or

// Cache the message and clear the cache of old messages of the same type
[CachedMessage(OnePerType=true)]

public class MessageType : IMessengerObject
{
}
```