

Unity HRM

0.9

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

ANT	7
Encrypt	7
MioLink	7
SocketInterface	7

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

ANT.ANTInterface	9
SocketInterface.AsynchronousSocketListener	10
Form	
MioLink.Form1	14
SocketInterface.StateObject	15

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

ANT.ANTInterface	Interface for communication with the HRM	9
SocketInterface.AsynchronousSocketListener	Server communication. Listener and sender of packets	10
MioLink.Form1	Basic C# Form which will display server state	14
SocketInterface.StateObject	State object for reading client data asynchronously.	
	15	

Chapter 4

Namespace Documentation

4.1 ANT Namespace Reference

Classes

- class [ANTInterface](#)
Interface for communication with the HRM.

4.2 Encrypt Namespace Reference

Classes

- class **StringCipher**
Enable simple encryption on a string.

4.3 MioLink Namespace Reference

Classes

- class [Form1](#)
Basic C# Form which will display server state.
- class **Program**
Entry class.

4.4 SocketInterface Namespace Reference

Classes

- class [AsynchronousSocketListener](#)
Server communication. Listener and sender of packets.
- class [StateObject](#)
State object for reading client data asynchronously.

Chapter 5

Class Documentation

5.1 ANT.ANTInterface Class Reference

Interface for communication with the HRM.

Static Public Member Functions

- static void [Init](#) ()
Initialize parameters for a HRM device connection.
- static void [Start](#) ()
Start ANT+ driver and open ports for connection.
- static void [Shutdown](#) ()
Shut down the ant device connection.

5.1.1 Detailed Description

Interface for communication with the HRM.

Definition at line 11 of file ANT.cs.

5.1.2 Member Function Documentation

5.1.2.1 Init()

```
static void ANT.ANTInterface.Init ( ) [static]
```

Initialize parameters for a HRM device connection.

Definition at line 31 of file ANT.cs.

Here is the call graph for this function:



5.1.2.2 Shutdown()

```
static void ANT.ANTInterface.Shutdown ( ) [static]
```

Shut down the ant device connection.

Definition at line 326 of file ANT.cs.

5.1.2.3 Start()

```
static void ANT.ANTInterface.Start ( ) [static]
```

Start ANT+ driver and open ports for connection.

Definition at line 68 of file ANT.cs.

The documentation for this class was generated from the following file:

- ANT.cs

5.2 SocketInterface.AsynchronousSocketListener Class Reference

Server communication. Listener and sender of packets.

Static Public Member Functions

- static void [StartListening](#) ()
Open port and start listening.
- static void [AcceptCallback](#) (IAsyncResult ar)
TCP handsake to confirm packets
- static void [Receive](#) ()
Handle the received packet from the callback and start listening again.
- static void [ReadCallback](#) (IAsyncResult ar)
Read the message data that got send.
- static void [Send](#) (string data)
Encrypt and send the data packet.
- static void [Shutdown](#) ()
Close the server.

5.2.1 Detailed Description

Server communication. Listener and sender of packets.

Definition at line 23 of file AsyncSocketInterface.cs.

5.2.2 Member Function Documentation

5.2.2.1 AcceptCallback()

```
static void SocketInterface.AsynchronousSocketListener.AcceptCallback (
    IAsyncResult ar ) [static]
```

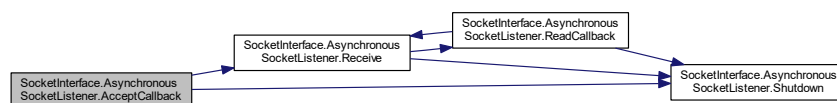
TCP handsake to confirm packets

Parameters

<i>ar</i>	
-----------	--

Definition at line 59 of file AsyncSocketInterface.cs.

Here is the call graph for this function:



5.2.2.2 ReadCallback()

```
static void SocketInterface.AsynchronousSocketListener.ReadCallback (
    IAsyncResult ar ) [static]
```

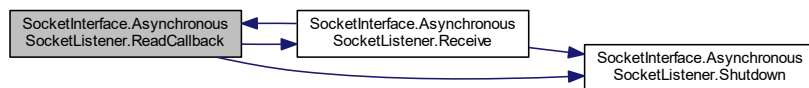
Read the message data that got send.

Parameters

<i>ar</i>	
-----------	--

Definition at line 104 of file AsyncSocketInterface.cs.

Here is the call graph for this function:



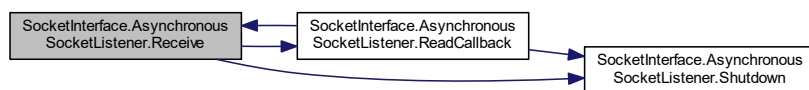
5.2.2.3 Receive()

```
static void SocketInterface.AsynchronousSocketListener.Receive ( ) [static]
```

Handle the received packet from the callback and start listening again.

Definition at line 79 of file AsyncSocketInterface.cs.

Here is the call graph for this function:



5.2.2.4 Send()

```
static void SocketInterface.AsynchronousSocketListener.Send (
    string data ) [static]
```

[Encrypt](#) and send the data packet.

Parameters

<i>data</i>	The data to be send as string.
-------------	--------------------------------

Definition at line 154 of file AsyncSocketInterface.cs.

5.2.2.5 Shutdown()

```
static void SocketInterface.AsynchronousSocketListener.Shutdown ( ) [static]
```

Close the server.

Definition at line 197 of file AsyncSocketInterface.cs.

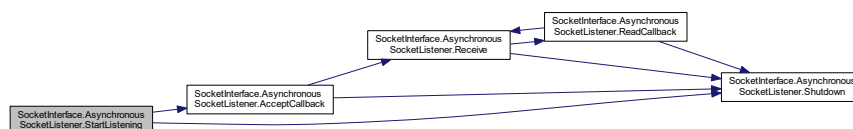
5.2.2.6 StartListening()

```
static void SocketInterface.AsynchronousSocketListener.StartListening ( ) [static]
```

Open port and start listening.

Definition at line 31 of file AsyncSocketInterface.cs.

Here is the call graph for this function:



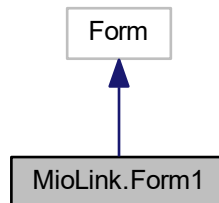
The documentation for this class was generated from the following file:

- AsyncSocketInterface.cs

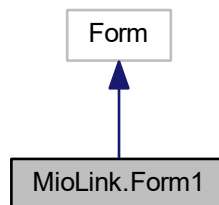
5.3 MioLink.Form1 Class Reference

Basic C# Form which will display server state.

Inheritance diagram for MioLink.Form1:



Collaboration diagram for MioLink.Form1:



5.3.1 Detailed Description

Basic C# Form which will display server state.

GUI frontend.

Definition at line 13 of file `Form1.cs`.

The documentation for this class was generated from the following files:

- `Form1.cs`
- `Form1.Designer.cs`

5.4 SocketInterface.StateObject Class Reference

State object for reading client data asynchronously.

Public Attributes

- Socket `workSocket` = null
Client socket.
- byte[] `buffer` = new byte[`BufferSize`]
Receive buffer.
- StringBuilder `sb` = new StringBuilder()
Received data string.

Static Public Attributes

- const int `BufferSize` = 1024
Size of receive buffer.

5.4.1 Detailed Description

State object for reading client data asynchronously.

Definition at line 12 of file AsyncSocketInterface.cs.

The documentation for this class was generated from the following file:

- AsyncSocketInterface.cs

Index

- AcceptCallback
 - SocketInterface.AsynchronousSocketListener, [11](#)
- ANT, [7](#)
- ANT.ANTInterface, [9](#)
 - Init, [9](#)
 - Shutdown, [10](#)
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- MioLink, [7](#)
- MioLink.Form1, [14](#)
- ReadCallback
 - SocketInterface.AsynchronousSocketListener, [11](#)
- Receive
 - SocketInterface.AsynchronousSocketListener, [12](#)
- Send
 - SocketInterface.AsynchronousSocketListener, [12](#)
- Shutdown
 - ANT.ANTInterface, [10](#)
 - SocketInterface.AsynchronousSocketListener, [13](#)
- SocketInterface, [7](#)
- SocketInterface.AsynchronousSocketListener, [10](#)
 - AcceptCallback, [11](#)
 - ReadCallback, [11](#)
 - Receive, [12](#)
 - Send, [12](#)
 - Shutdown, [13](#)
 - StartListening, [13](#)
- SocketInterface.StateObject, [15](#)
- Start
 - ANT.ANTInterface, [10](#)
- StartListening
 - SocketInterface.AsynchronousSocketListener, [13](#)