

Advanced HMI Communication Driver Model

In order for the controls in Advanced HMI to link to values in a controller/PLC, a driver that implements the ICommComponent interface must be developed.

The following are the methods defined in ICommComponent:

```
Function ReadAny(ByVal startAddress As String) As String
```

This is the basic read for retrieving a value from the controller.

```
Function ReadAny(ByVal startAddress As String, ByVal numberOfElements As Integer) As String()
```

This is another read method that can read multiple consecutive elements. It returns the value as an array of strings.

```
Function WriteData(ByVal startAddress As String, ByVal dataToWrite As String) As Integer
```

This is the basic write method. It returns a 0 if the write was successful

```
Delegate Sub ReturnValues(ByVal Values As String())  
Function Subscribe(ByVal PLCAddress As String, ByVal numberOfElements As Integer, ByVal Callback As ReturnValues) As Integer
```

This delegate and function work together to provide automatically updated values. Once values are read from the PLC, they will be sent to the "Callback" subroutine in the driver. The "Callback" must be defined as a ReturnValues delegate. When a subscribe is called, an ID value is returned that is used to remove the subscription.

```
Function UnSubscribe(ByVal ID As Integer) As Integer
```

This is called just before a control is destroyed or wishes to stop receiving values from the PLC.