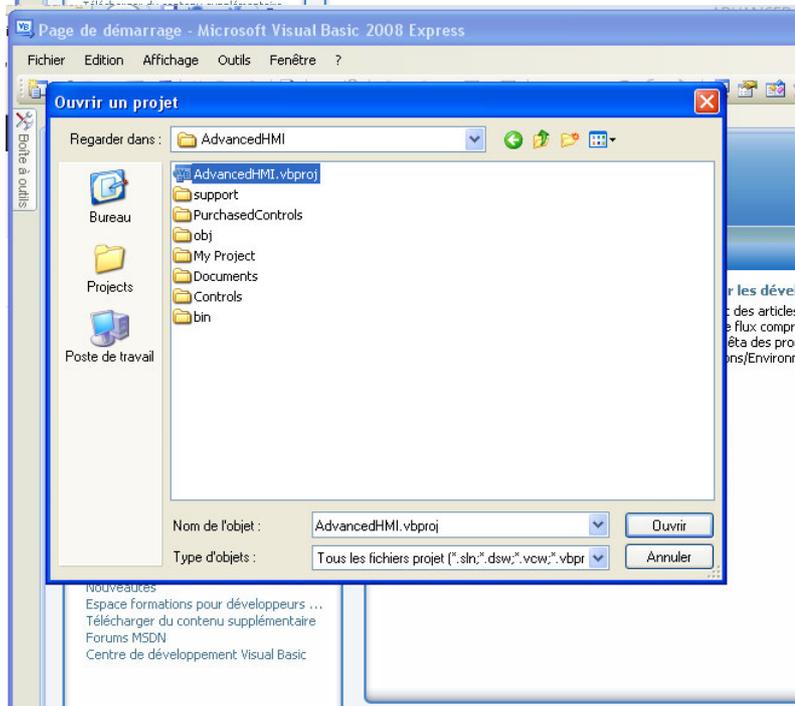
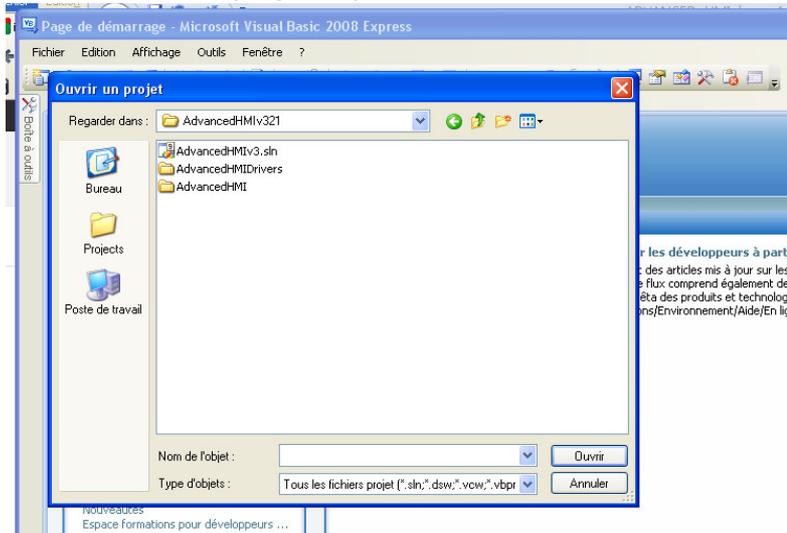


ADVANCED HMI

Lancer AdvancedHMI :

Lancer Visual basic express 2008 :

Fichier/Ouvrir un projet/repertoire AdvancedHMI



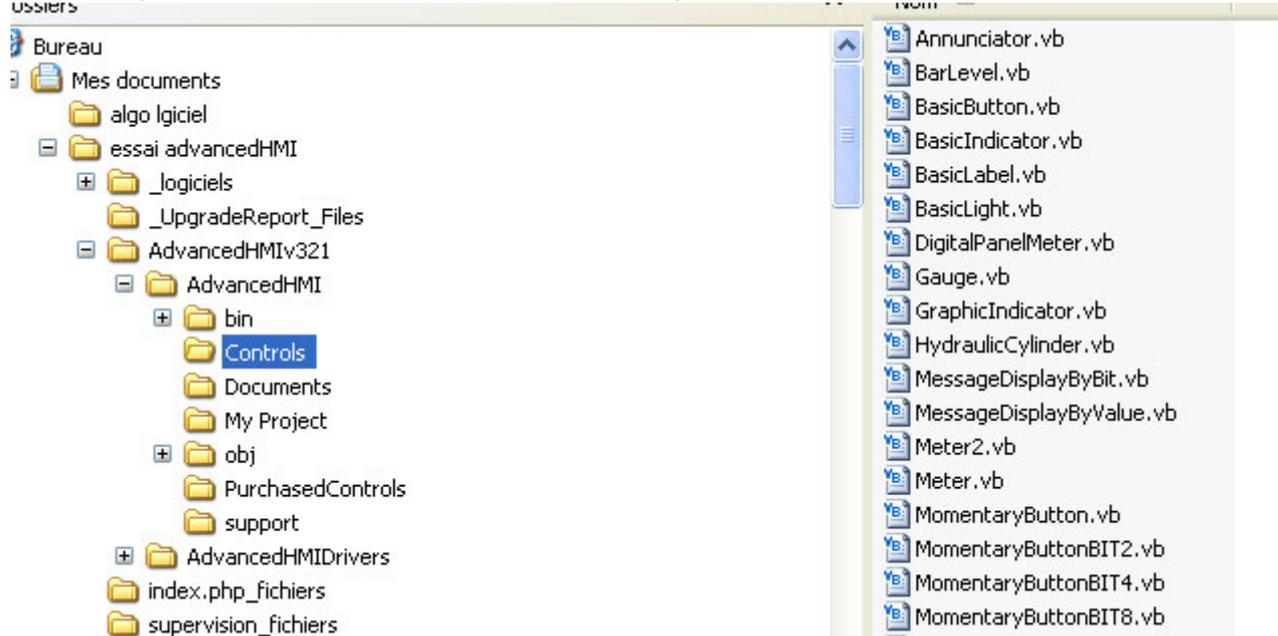
Ouvrir.
Générer/



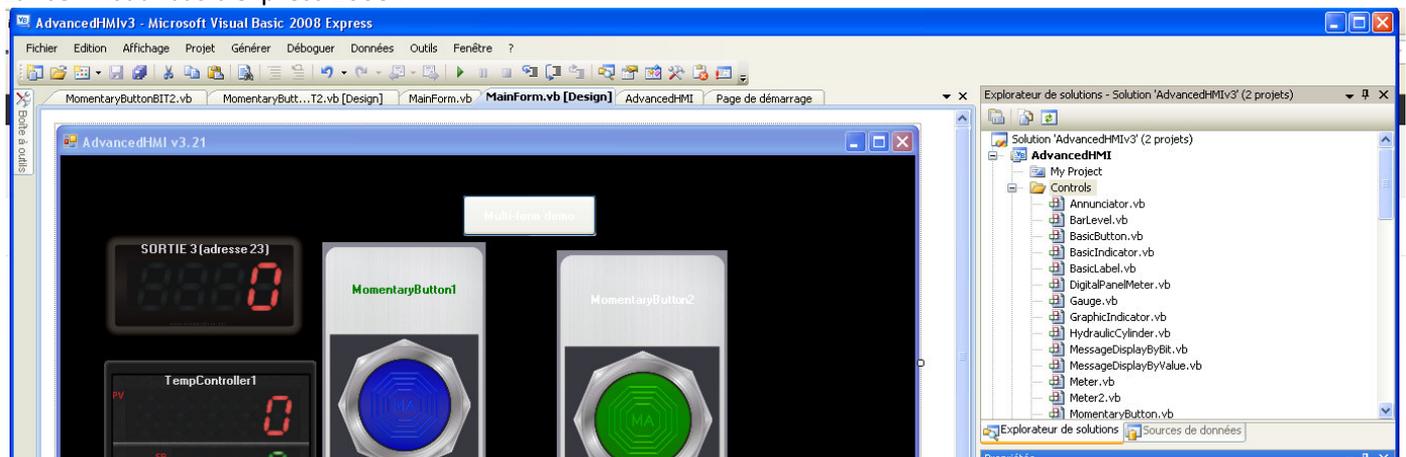
Les différents objets ont été générés dans la boîte à outils.

Modifier et ajouter un nouveau composant :

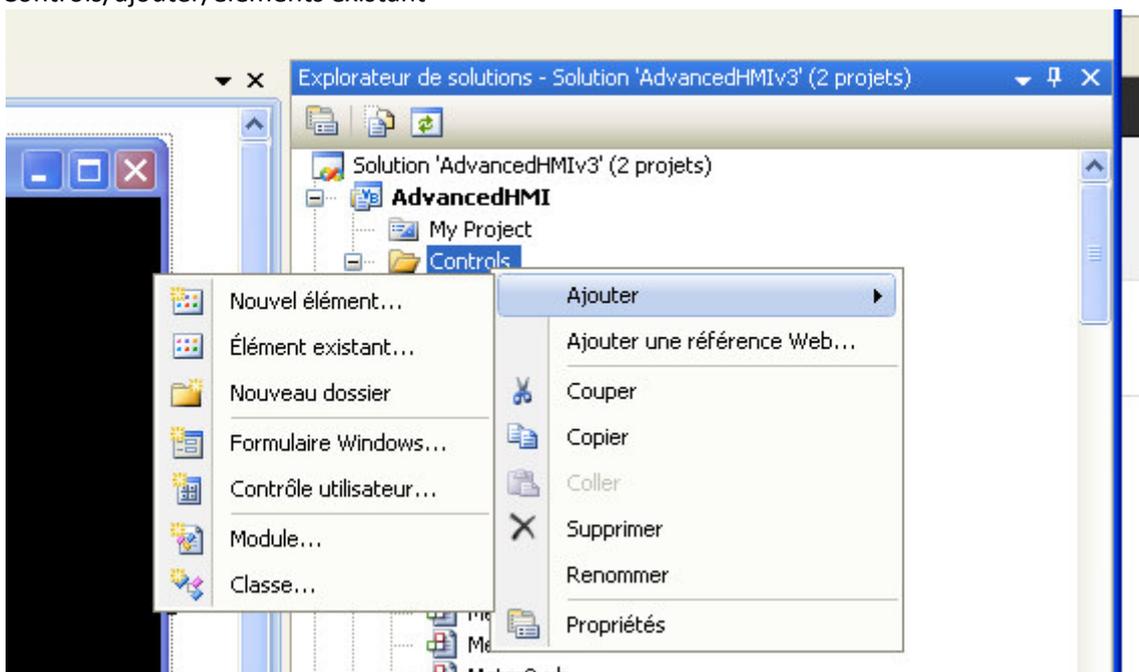
Faire un copier coller d'un élément existant (Momentary Button) dans « controls » de advancedhmi :



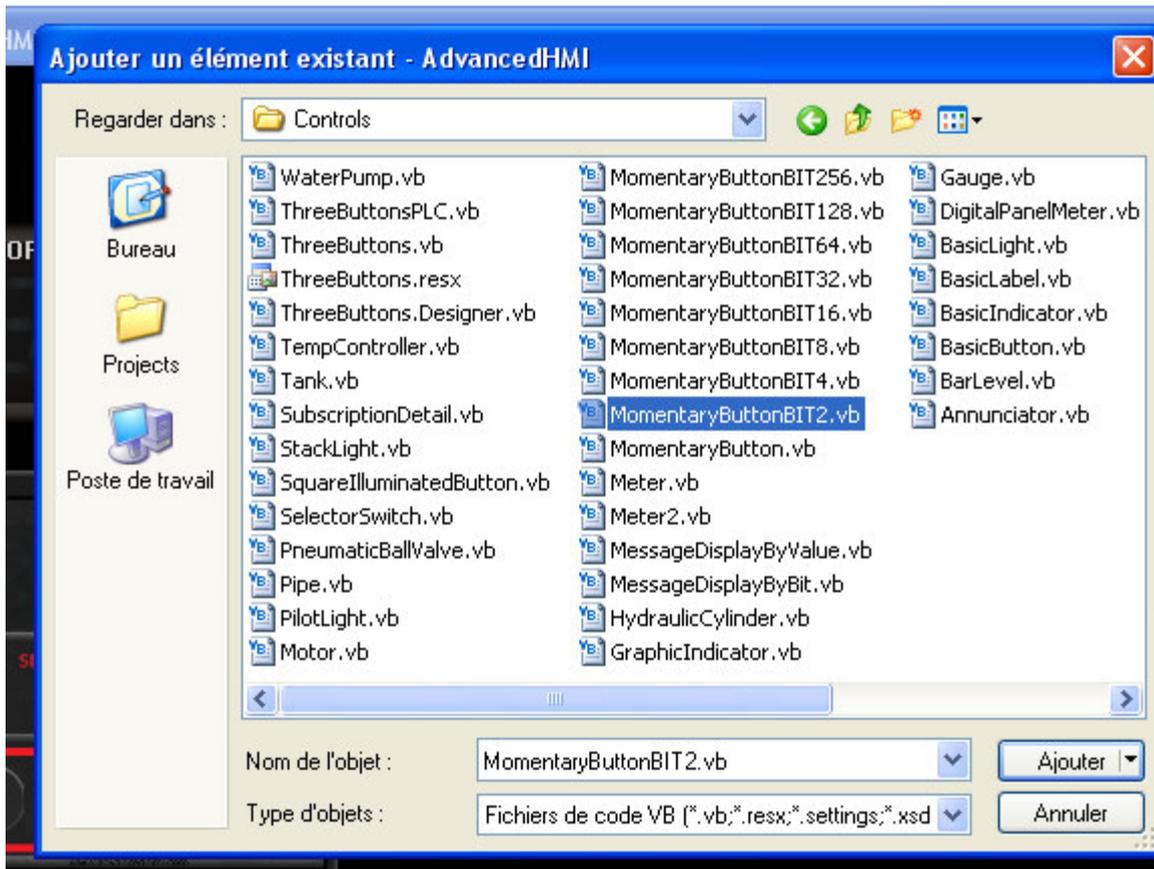
Lancer Visual basic express 2008 :



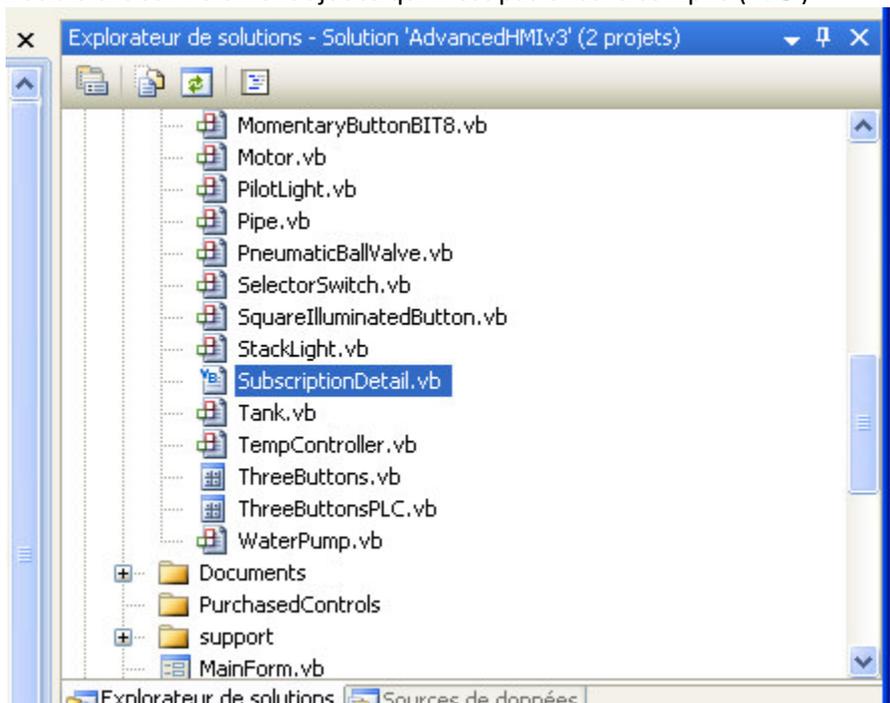
Controls/ajouter/éléments existant

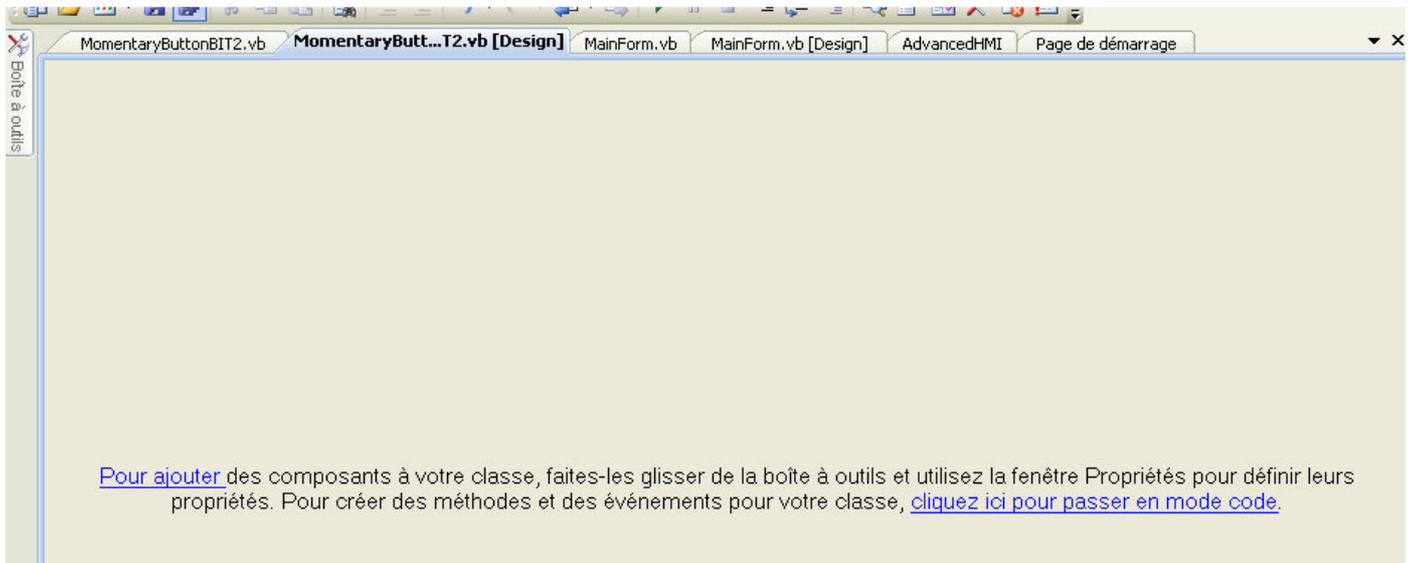


Sélectionner l'élément en vb que vous avez ajouté à Controls :

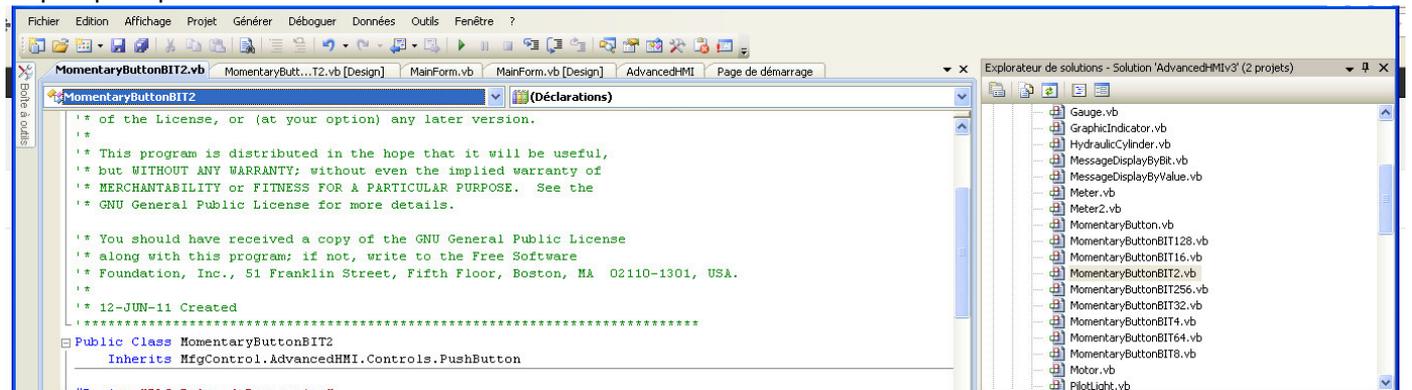


Double clic sur l'élément ajouté qui n'est pas encore compilé ()





Cliquer pour passer en mode code :



Changer Public Class pour qu'elle corresponde au nom donné à l'objet, ici, MomentaryButtonBIT2
Grâce à cette modif, le bouton enverra la valeur 2

```
#Region "PLC Related Properties"
...
Private Sub MomentaryButton_MouseDown(ByVal sender As Object, ByVal e As System.Windows.Forms.MouseEvent
    If m_PLCAaddressClick <> "" And Enabled Then
        Try
            Select Case MyBase.OutputType
                Case OutputTypes.MomentarySet : _CommComponent.WriteData(m_PLCAaddressClick, 2)
                Case OutputTypes.MomentaryReset : _CommComponent.WriteData(m_PLCAaddressClick, 0)
                Case OutputTypes.SetTrue : _CommComponent.WriteData(m_PLCAaddressClick, 2)
                Case OutputTypes.SetFalse : _CommComponent.WriteData(m_PLCAaddressClick, 0)
                Case OutputTypes.Toggle
                    Dim CurrentValue As Boolean
                    CurrentValue = _CommComponent.ReadAny(m_PLCAaddressClick)
                    If CurrentValue Then
                        _CommComponent.WriteData(m_PLCAaddressClick, 0)
                    Else
                        _CommComponent.WriteData(m_PLCAaddressClick, 2)
                    End If
                End Select
            Catch ex As MfgControl.AdvancedHMI.Drivers.common.PLCDriverException
                If ex.ErrorCode = 1808 Then
                    DisplayError("***** & m_PLCAaddressClick & ***** PLC Address not found")
                Else
                    DisplayError(ex.Message)
                End If
            End Try
        End Try
    End Try
End Try
```

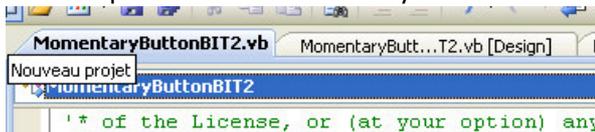
```

'*****
'* Event - Mouse Up
'*****
Private Sub MomentaryButton_MouseUp(ByVal sender As Object, ByVal e As System.Windows.Forms.MouseEventArgs)
    If m_PLAddressClick <> "" And Enabled Then
        Try
            Select Case MyBase.OutputType
                Case OutputTypes.MomentarySet : _CommComponent.WriteData(m_PLAddressClick, 0)
                Case OutputTypes.MomentaryReset : _CommComponent.WriteData(m_PLAddressClick, 2)
            End Select
        Catch ex As MfgControl.AdvancedHMI.Drivers.common.PLCDriverException
            If ex.ErrorCode = 1808 Then
                DisplayError("***** & m_PLAddressClick & ***** PLC Address not found")
            Else
                DisplayError(ex.Message)
            End If
        End Try
    End If
End Sub

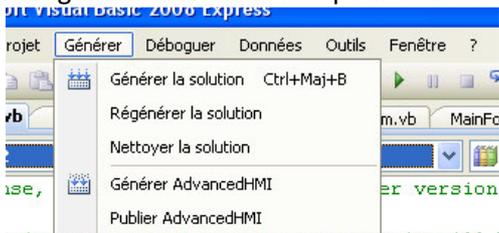
```

Enregistrer.

L'astérisque à côté de MomentaryButtonBIT2.vb disparaît.



Puis générer advanced hmi pour effectuer la compilation :



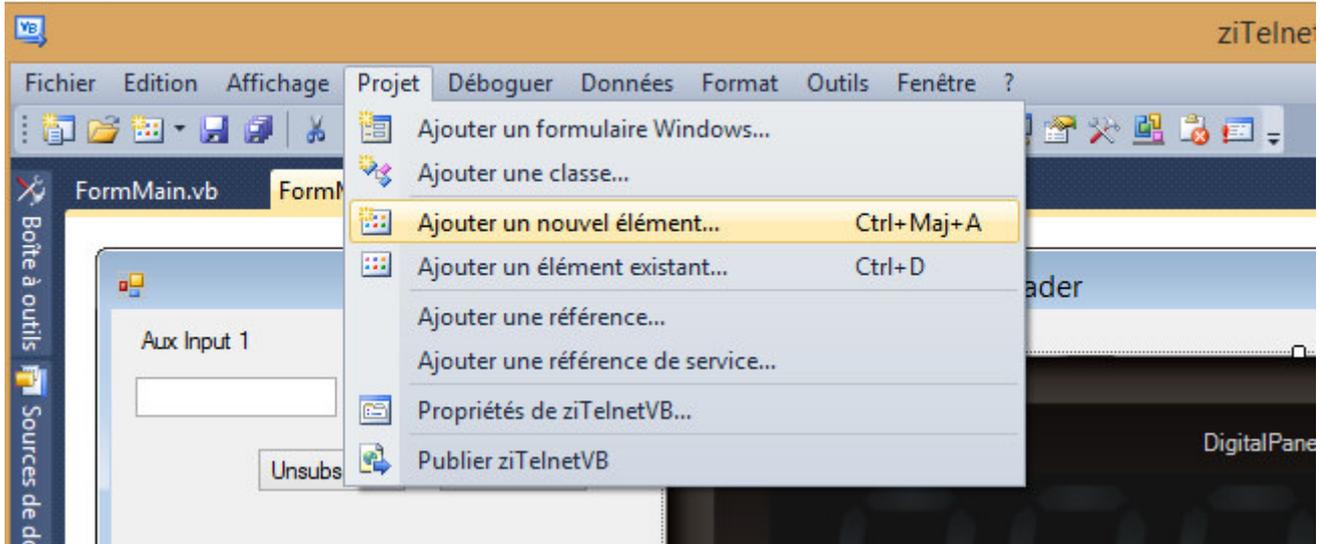
Ajouter un nouvel onglet pour y déposer vos créations par exemple :



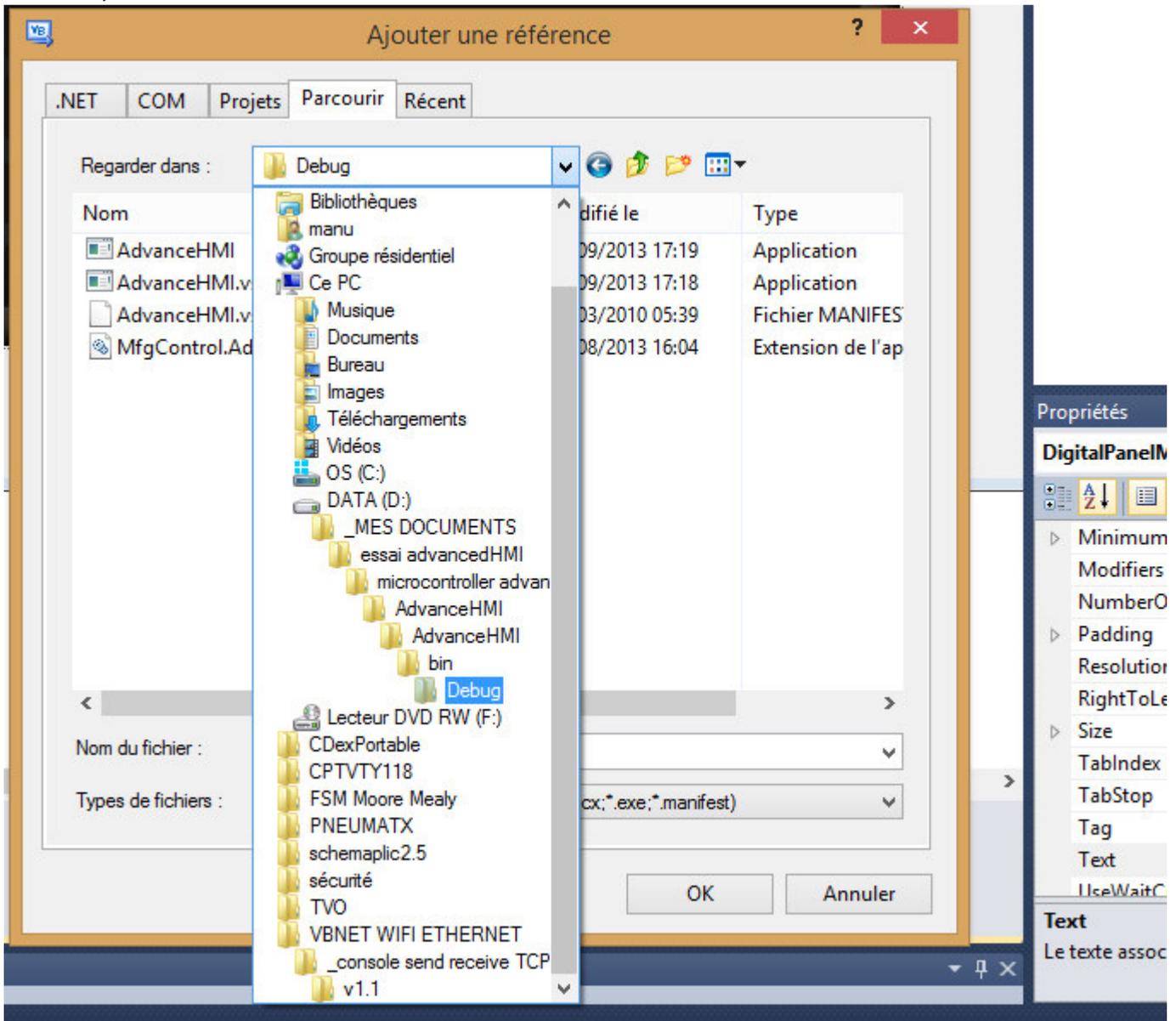
Ajouter les composants de advancedHMI à Visual basic express 2010

Ouvrir vb express 2010

Projet/ajouter une référence



Parcourir/ chercher la dll MfgControl.AdvancedHMI.Controls.dll dans le chemin suivant

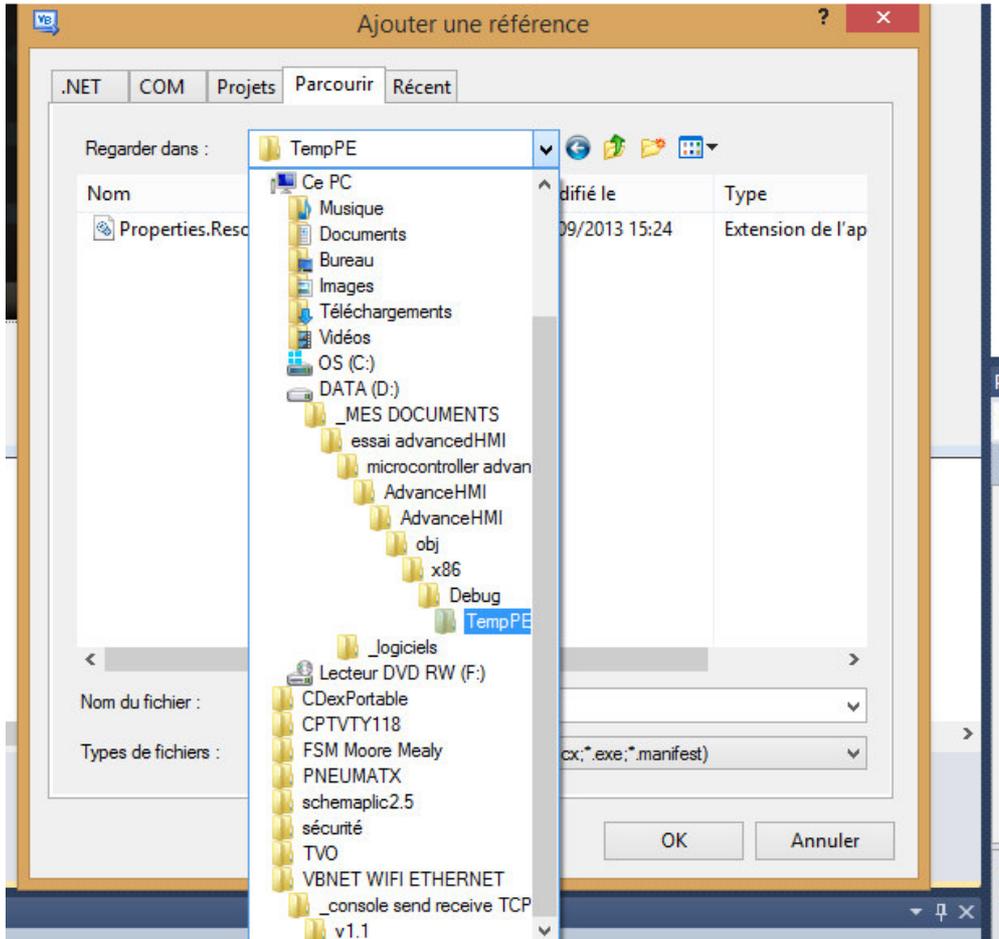


OK



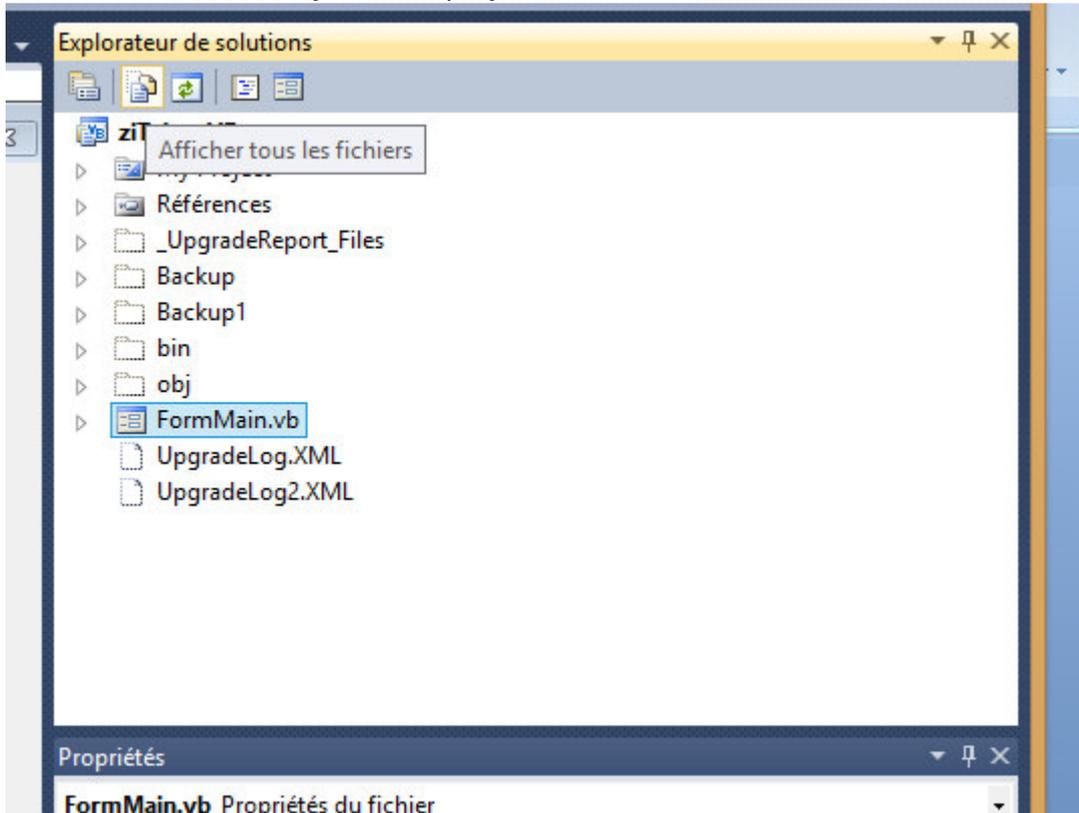
Properties.Resources.Designer.cs.dll

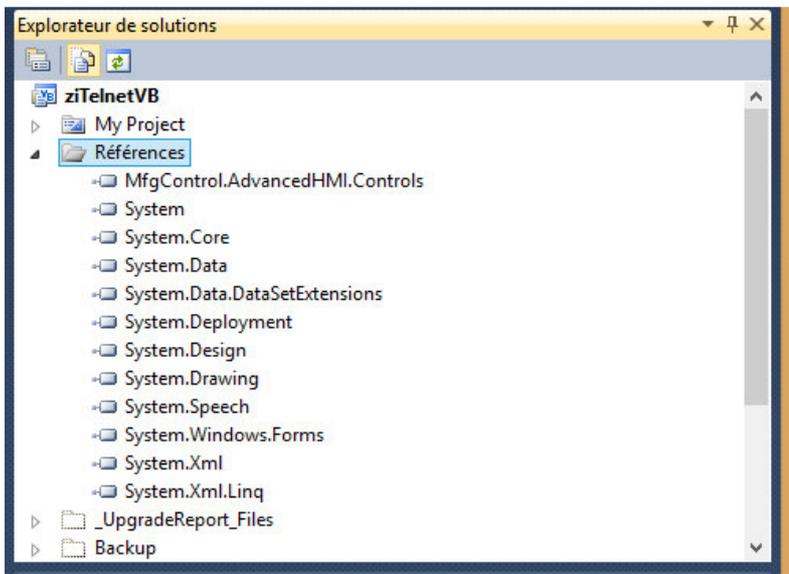
Faire la même chose avec l'autre dll



OK

Visualiser la référence ajoutée au projet :

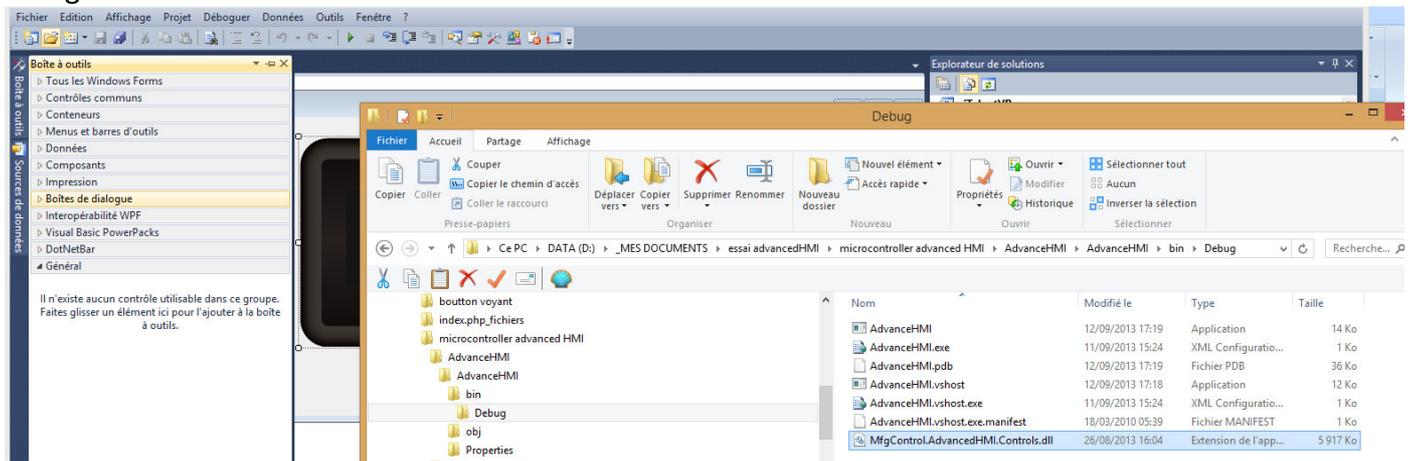




Faire glisser une copie de la dll

MfgControl.AdvancedHMI.Controls.dll

dans la boîte à outil/Boîtes de dialogue



OK

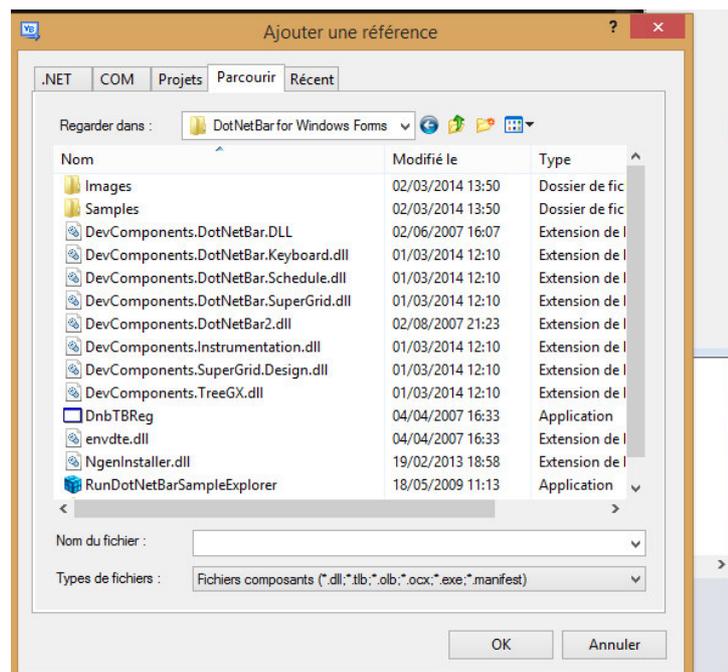
Autre jauge DotNetBar :

Même méthode.



Installer la version d'essai de
Projet/ajouter une référence :
Prendre les dll DevComponents
uniquement

DotNetBarSetupTrial.msi



Vérifier les références ajoutées au projet.



Faire glisser la dll

DevComponents.DotNetBar2.dll

dans Boîtes à outils/Boîtes de dialogue.

Penser à rajouter les références à chaque nouveau projet pour les DotNetBar.

Digital panel : à 10-2 près



| Propriétés | |
|---|---------------------------------------|
| DigitalPanelMeterA1 MfgControl.AdvancedHMI.DigitalPanelMete | |
| (ApplicationSettings) | |
| (DataBindings) | |
| (Name) | DigitalPanelMeterA1 |
| AccessibleDescription | |
| AccessibleName | |
| AccessibleRole | Default |
| AllowDrop | True |
| Anchor | Top, Left |
| BackColor | Black |
| BackgroundImage | (aucun) |
| BackgroundImageLayout | Tile |
| CausesValidation | True |
| CommComponent | ModbusTcpCom1 |
| ContextMenuStrip | (aucun) |
| Cursor | Default |
| DecimalPosition | 2 |
| Dock | None |
| Enabled | True |
| Font | Microsoft Sans Serif; 8,25pt; style=E |
| ForeColor | LightGray |
| GenerateMember | True |
| ImeMode | NoControl |
| KeypadFontColor | WhiteSmoke |
| KeypadMaxValue | 65535 |

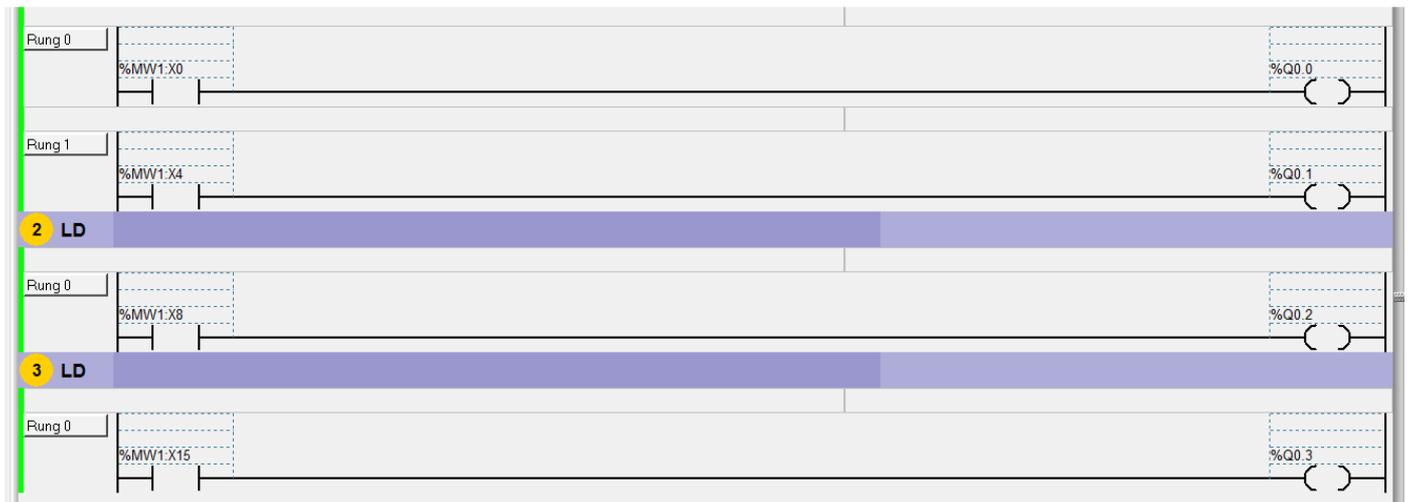
| | |
|-------------------|----------------------------|
| KeypadMaxValue | 65535 |
| KeypadMinValue | -400 |
| KeypadScaleFactor | 0,01 |
| KeypadText | |
| KeypadWidth | 300 |
| Location | 542; 307 |
| Locked | False |
| Margin | 3; 3; 3; 3 |
| MaximumSize | 0; 0 |
| MinimumSize | 0; 0 |
| Modifiers | Friend |
| NumberOfDigits | 5 |
| Padding | 0; 0; 0; 0 |
| PLCAddressKeypad | 40002 |
| PLCAddressText | |
| PLCAddressValue | 40002 |
| PLCAddressVisible | |
| Resolution | 0,001 |
| RightToLeft | No |
| Size | 247; 107 |
| TabIndex | 56 |
| TabStop | True |
| Tag | |
| Text | DigitalPanelMeterA1 |
| UseWaitCursor | False |
| Value | 0 |
| ValueScaleFactor | 1 |
| Visible | True |

Adresse Modbus rtu advancedHMI/twido :

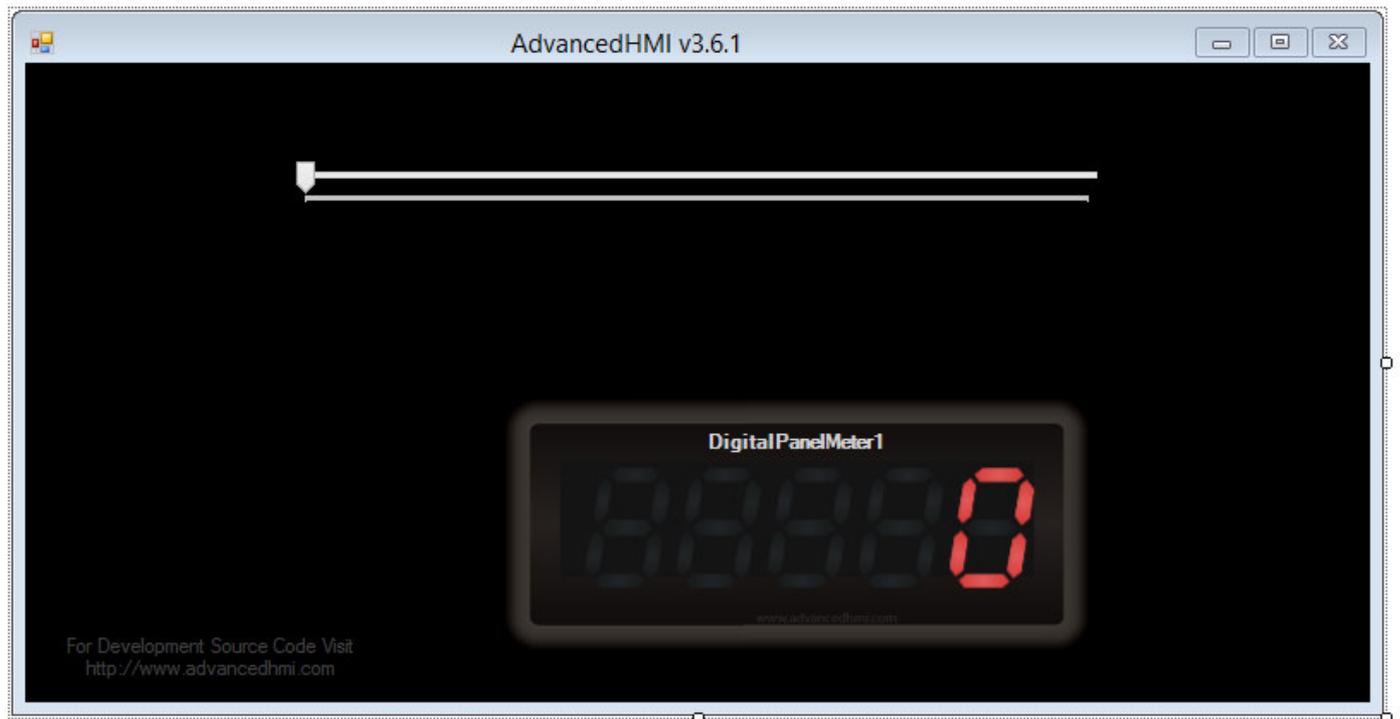
| | |
|-------------------|---------------------------------------|
| Enabled | True |
| Font | Microsoft Sans Serif; 8,25pt; style=B |
| ForeColor | ActiveCaptionText |
| GenerateMember | True |
| ImeMode | NoControl |
| LegendPlate | Large |
| Location | 284; 124 |
| Locked | False |
| Margin | 3; 3; 3; 3 |
| MaximumSize | 0; 0 |
| MinimumSize | 0; 0 |
| Modifiers | Friend |
| OutputType | MomentarySet |
| Padding | 0; 0; 0; 0 |
| PLCAddressClick | 40002 |
| PLCAddressVisible | |
| RightToLeft | No |
| Size | 196; 287 |
| TabIndex | 49 |
| TabStop | True |
| Tag | |
| Text | MomentaryButton1 |
| UseWaitCursor | False |
| Visible | True |

L'adresse 40002 correspond à l'adresse

Twido %MW1



Utiliser la trackbar pour piloter une valeur analogique :



Paramètres trackbar :

Propriétés

TrackBar1 System.Windows.Forms.TrackBar

| System.Windows.Forms.TrackBar | |
|-------------------------------|---|
| ▶ (ApplicationSettings) | |
| ▶ (DataBindings) | |
| (Name) | TrackBar1 |
| AccessibleDescription | |
| AccessibleName | |
| AccessibleRole | Default |
| AllowDrop | False |
| Anchor | Top, Left |
| AutoSize | True |
| BackColor |  Black |
| CausesValidation | True |
| ContextMenuStrip | (aucun) |
| Cursor | Default |
| Dock | None |
| Enabled | True |
| GenerateMember | True |
| LargeChange | 5 |
| ▶ Location | 150; 56 |
| Locked | False |
| ▶ Margin | 3; 3; 3; 3 |
| Maximum | 4096 |
| ▶ MaximumSize | 0; 0 |
| Minimum | 0 |
| ▶ MinimumSize | 0; 0 |
| Modifiers | Friend |
| Orientation | Horizontal |
| RightToLeft | No |
| RightToLeftLayout | False |
| ▶ Size | 483; 45 |
| SmallChange | 1 |
| SmallChange | 1 |
| TabIndex | 5 |
| TabStop | True |
| Tag | |
| TickFrequency | 1 |
| TickStyle | BottomRight |
| UseWaitCursor | False |
| Value | 0 |
| Visible | True |

Paramètre digitalpanelmeter :

| Propriétés | |
|--|--|
| DigitalPanelMeter1 MfgControl.AdvancedHMI.DigitalPanelMeter | |
| | |
| ▷ (ApplicationSettings) | |
| ▷ (DataBindings) | |
| (Name) | DigitalPanelMeter1 |
| AccessibleDescription | |
| AccessibleName | |
| AccessibleRole | Default |
| AllowDrop | False |
| Anchor | Top, Left |
| BackColor | Black |
| BackgroundImage | (aucun) |
| BackgroundImageLayout | Tile |
| CausesValidation | True |
| CommComponent | ModbusTcpCom1 |
| ContextMenuStrip | (aucun) |
| Cursor | Default |
| DecimalPosition | 0 |
| Dock | None |
| Enabled | True |
| ▷ Font | Microsoft Sans Serif; 8,25pt; style=Bold |
| ForeColor | LightGray |
| GenerateMember | True |
| ImeMode | NoControl |
| KeypadFontColor | WhiteSmoke |
| KeypadMaxValue | 65535 |
| KeypadMinValue | 0 |
| KeypadScaleFactor | 1 |
| KeypadText | |
| KeypadWidth | 300 |
| ▷ Location | 279; 197 |
| Locked | False |

| | |
|-------------------|---------------------------|
| ▷ Margin | 3; 3; 3; 3 |
| ▷ MaximumSize | 0; 0 |
| ▷ MinimumSize | 0; 0 |
| Modifiers | Friend |
| NumberOfDigits | 5 |
| ▷ Padding | 0; 0; 0; 0 |
| PLCAddressKeypad | 4002 |
| PLCAddressText | |
| PLCAddressValue | 4002 |
| PLCAddressVisible | |
| Resolution | 1 |
| RightToLeft | No |
| ▷ Size | 341; 148 |
| TabIndex | 4 |
| TabStop | True |
| Tag | |
| Text | DigitalPanelMeter1 |
| UseWaitCursor | False |
| Value | 0 |
| ValueScaleFactor | 1 |
| Visible | True |

Valider l'option keypad

Programme sur la main form :

```

mainform (Declarations)
Public Class MainForm
    Dim valeur As Integer
    Dim result As String

    '*****
    '* Stop polling when the form is not visible in order to reduce communications
    '* Copy this section of code to every new form created
    '*****
    Private Sub Form_VisibleChanged(ByVal sender As Object, ByVal e As System.EventArgs) Handles Me.VisibleChanged
        If components IsNot Nothing Then
            Dim drv As AdvancedHMIDrivers.IComComponent
            '*****
            '* Search for comm components
            '*****
            For i As Integer = 0 To components.Components.Count - 1
                If components.Components(i).GetType.GetInterface("AdvancedHMIDrivers.IComComponent") IsNot Nothing Then
                    drv = components.Components.Item(i)
                    '* Stop/Start polling based on form visibility
                    drv.DisableSubscriptions = Not Me.Visible
                End If
            Next
        End If
    End Sub

    '*****
    '* This will guarantee that even hidden forms are all closed
    '* when the main application is closed
    '*****
    Private Sub DemoForm_FormClosed(ByVal sender As Object, ByVal e As System.Windows.Forms.FormClosedEventArgs) Handles Me.FormClosed
        Environment.Exit(0)
    End Sub

    '*****
    '* Filling the form with a gradient
    '*****
    Private Sub MainForm_Paint(sender As Object, e As System.Windows.Forms.PaintEventArgs) Handles Me.Paint
        Dim rect As New System.Drawing.Rectangle(0, 0, e.ClipRectangle.Width, e.ClipRectangle.Height)
        Dim gradientBrush As New Drawing.Drawing2D.LinearGradientBrush(New Point(0, 0), New Point(0, Height),
            System.Drawing.Color.FromArgb(180, 100, 200), System.Drawing.Color.FromArgb(110, 200, 255))
        e.Graphics.FillRectangle(gradientBrush, rect)
    End Sub

```

```
        System.Drawing.Color.FromArgb(180, 100, 200), System.Drawing.Color.FromArgb(110, 200, 255))
        'e.Graphics.FillRectangle(gradientBrush, rect)
    End Sub

    Private Sub TrackBar1_Scroll(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles TrackBar1.Scroll
        valeur = TrackBar1.Value
        result = valeur.ToString
        DigitalPanelMeter1.PLCAddressKeypad = result
        DigitalPanelMeter1.CommComponent.Write(40002, valeur)
    End Sub

    Private Sub DigitalPanelMeter1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles DigitalPanelMeter1.Click
    End Sub
End Class
```

On utilise l'adresse du keypad interposée pour afficher la valeur de la trackbar en 40002 et commcomponent pour envoyer la valeur de la trackbar.