附录（程序代码）

**（通用）——（声明）**

Dim pluglastTime

Dim pluglastTime2

Dim i As Single

Dim LastTimeR As New ADODB.Recordset '用于取最后一条电量等表的记录时间的记录对象

Dim LastTimeR2 As New ADODB.Recordset '用于取最后一条温度等表的记录时间的记录对象

Dim strCodeplugmacAddress

**command1——click**

Private Sub Command1\_Click()

MsgBox "用户注销成功"

smartplus.Hide

Form1.Show

End Sub

**Form——initialize**

Private Sub Form\_Initialize()

Adodc1.ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source=localhost"

Adodc1.CommandType = adCmdText

TotalData.ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost " '全部插座信息表的ado控件

TotalTemp.ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost " '全部插座信息表的ado控件

TotalData.CommandType = adCmdText

TotalTemp.CommandType = adCmdText

buildingactive(0).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

buildingactive(0).CommandType = adCmdText

buildingactive(1).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

buildingactive(1).CommandType = adCmdText

area(0).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

area(0).CommandType = adCmdText

area(1).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

area(1).CommandType = adCmdText

collector(0).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source=1 localhost "

collector(0).CommandType = adCmdText

collector(1).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

collector(1).CommandType = adCmdText

plug(0).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

plug(0).CommandType = adCmdText

plug(1).ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

plug(1).CommandType = adCmdText

Adodc2.ConnectionString = "Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Password=123456;Initial Catalog=shuihu;Data Source= localhost "

Adodc2.CommandType = adCmdText

TotalData.RecordSource = "Select top 100 ACTIVEPOWER,REACTIVEPOWER,VOLTAGE,[CURRENT],ACTIVEENERGY,processTime,DBTIME,MAC from analyze\_electrictable order by DBTIME desc"

TotalTemp.RecordSource = "select top 100 TEMP,HUMIDITY,MAC,COLLECTIP,DBTIME from analyze\_humituretable order by DBTIME desc"

TotalData.Refresh

TotalTemp.Refresh

VOLTAGEchart.chartType = VtChChartType2dXY '电压二维散点图，显示一条曲线

CURRENTChart.chartType = VtChChartType2dXY '电流二维散点图，显示一条曲线

ACTIVEENERGYChart.chartType = VtChChartType2dXY '电量二维散点图，显示一条曲线

TEMPChart.chartType = VtChChartType2dXY '温度二维散点图，显示一条曲线

With ACTIVEENERGYChart '初始化电量曲线样式

chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

'// 设置最大值

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

'// 设置最小值

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

'//设置图表标题

.Title.Text = "电量汇总"

.Plot.Axis(VtChAxisIdX).ValueScale.MajorDivision = 3 'X轴主要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MajorDivision = 6 'Y轴主要网格数量

.Plot.Axis(VtChAxisIdX).ValueScale.MinorDivision = 0 'X轴次要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MinorDivision = 0 'Y轴次要网格数量

.Plot.Axis(VtChAxisIdX).Labels(1).Format = "hh:mm:ss"

.Plot.Axis(VtChAxisIdX).AxisGrid.MajorPen.Style = VtPenStyleNull '//X轴网格不显示

.Plot.Axis(VtChAxisIdY).AxisGrid.MajorPen.Style = VtPenStyleDotted '//Y轴网格为实线

.Plot.AutoLayout = False '//改为手动设置大小

.Plot.UniformAxis = False '//指定图表的所有值坐标轴的单位刻度不一致(X,Y轴坐标不需要一致).

End With

With CURRENTChart '初始化电流曲线样式

.chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

'// 设置最大值

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

'// 设置最小值

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

'//设置图表标题

.Title.Text = "电流"

.Plot.Axis(VtChAxisIdX).ValueScale.MajorDivision = 3 'X轴主要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MajorDivision = 6 'Y轴主要网格数量

.Plot.Axis(VtChAxisIdX).ValueScale.MinorDivision = 0 'X轴次要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MinorDivision = 0 'Y轴次要网格数量

.Plot.Axis(VtChAxisIdX).Labels(1).Format = "hh:mm:ss"

.Plot.Axis(VtChAxisIdX).AxisGrid.MajorPen.Style = VtPenStyleNull '//X轴网格不显示

.Plot.Axis(VtChAxisIdY).AxisGrid.MajorPen.Style = VtPenStyleDotted '//Y轴网格为实线

.Plot.AutoLayout = False '//改为手动设置大小

.Plot.UniformAxis = False '//指定图表的所有值坐标轴的单位刻度不一致(X,Y轴坐标不需要一致).

End With

With VOLTAGEchart '初始化电压曲线样式

.chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

'// 设置最大值

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

'// 设置最小值

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

'//设置图表标题

.Title.Text = "电压"

.Plot.Axis(VtChAxisIdX).ValueScale.MajorDivision = 3 'X轴主要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MajorDivision = 6 'Y轴主要网格数量

.Plot.Axis(VtChAxisIdX).ValueScale.MinorDivision = 0 'X轴次要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MinorDivision = 0 'Y轴次要网格数量

.Plot.Axis(VtChAxisIdX).Labels(1).Format = "hh:mm:ss"

.Plot.Axis(VtChAxisIdX).AxisGrid.MajorPen.Style = VtPenStyleNull '//X轴网格不显示

.Plot.Axis(VtChAxisIdY).AxisGrid.MajorPen.Style = VtPenStyleDotted '//Y轴网格为实线

.Plot.AutoLayout = False '//改为手动设置大小

.Plot.UniformAxis = False '//指定图表的所有值坐标轴的单位刻度不一致(X,Y轴坐标不需要一致).

End With

With TEMPChart '初始化温度曲线样式

.chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

'// 设置最大值

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

'// 设置最小值

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

'//设置图表标题

.Title.Text = "温度平均值"

.Plot.Axis(VtChAxisIdX).ValueScale.MajorDivision = 3 'X轴主要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MajorDivision = 6 'Y轴主要网格数量

.Plot.Axis(VtChAxisIdX).ValueScale.MinorDivision = 0 'X轴次要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MinorDivision = 0 'Y轴次要网格数量

.Plot.Axis(VtChAxisIdX).Labels(1).Format = "hh:mm:ss"

.Plot.Axis(VtChAxisIdX).AxisGrid.MajorPen.Style = VtPenStyleNull '//X轴网格不显示

.Plot.Axis(VtChAxisIdY).AxisGrid.MajorPen.Style = VtPenStyleDotted '//Y轴网格为实线

.Plot.AutoLayout = False '//改为手动设置大小

.Plot.UniformAxis = False '//指定图表的所有值坐标轴的单位刻度不一致(X,Y轴坐标不需要一致).

End With

With HUMIDITYChart '初始化温度曲线样式

.chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

'// 设置最大值

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

'// 设置最小值

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

'//设置图表标题

.Title.Text = "湿度平均值"

.Plot.Axis(VtChAxisIdX).ValueScale.MajorDivision = 3 'X轴主要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MajorDivision = 6 'Y轴主要网格数量

.Plot.Axis(VtChAxisIdX).ValueScale.MinorDivision = 0 'X轴次要网格数量

.Plot.Axis(VtChAxisIdY).ValueScale.MinorDivision = 0 'Y轴次要网格数量

.Plot.Axis(VtChAxisIdX).Labels(1).Format = " hh:mm:ss"

.Plot.Axis(VtChAxisIdX).AxisGrid.MajorPen.Style = VtPenStyleNull '//X轴网格不显示

.Plot.Axis(VtChAxisIdY).AxisGrid.MajorPen.Style = VtPenStyleDotted '//Y轴网格为实线

.Plot.AutoLayout = False '//改为手动设置大小

.Plot.UniformAxis = False '//指定图表的所有值坐标轴的单位刻度不一致(X,Y轴坐标不需要一致).

End With

t = buildtree()

End Sub

**Form——Load**

Private Sub Form\_Load() '数据库连接

End Sub

**Timer3\_Timer**

Private Sub Timer3\_Timer()

'Adodc2.Refresh

'Adodc1.Refresh

TotalData.Refresh

TotalTemp.Refresh

End Sub

**Timerarea\_Time**

Private Sub Timerarea\_Timer()

area(0).Refresh

area(1).Refresh

End Sub

**Timerbuilding\_Timer**

Private Sub Timerbuilding\_Timer()

buildingactive(0).Refresh

buildingactive(1).Refresh

End Sub

**Timercollector\_Timer**

Private Sub Timercollector\_Timer()

collector(0).Refresh

collector(1).Refresh

End Sub

**Timerplug\_Timer**

Private Sub Timerplug\_Timer()

plug(0).Refresh

plug(1).Refresh

End Sub

**TreeView1\_NodeClick**

Private Sub TreeView1\_NodeClick(ByVal Node As MSComctlLib.Node) '读取数据中的对映表并显示电量等

Dim Mydata() As Double '电量数组

Dim VOLTAGEData() As Double '电流数组

Dim CURRENTData() As Double '电流数组

Dim TEMPData() As Double '温度数组

Dim HUMIDITYData() As Double '湿度数据

DblSec = 1.1574074074074E-05 '时间类型的数据1秒赋值给double类型变量时的值，即：1秒（时间类型）=1.1574074074074E-05（double类型）

Dim buildingR As New ADODB.Recordset '根目录节点的记录集对象（建筑物）

Dim plugR As New ADODB.Recordset '三级目录节点的记录集对象（插座）

Dim collectorR As New ADODB.Recordset '二级目录节点的记录集对象（采集器）

Dim AreaR As New ADODB.Recordset '一级目录节点的记录集对象（区域）

buildingR.Open "select \* from buildingInformation ", buildingactive(0).ConnectionString

Do Until buildingR.EOF '遍历二级采集器目录节点并显示

strCodebuildingtagName = Trim(buildingR.Fields("tagName"))

If Node.Text = strCodebuildingtagName Then '选中建筑物节点

Timerbuilding.Enabled = True

Timerplug.Enabled = False

Timercollector = False

Timerarea = False

VOLTAGEchart.Visible = False '不显示电压曲线表

CURRENTChart.Visible = False '不显示电流曲线表

LastTimeR.Open "Select max(DBTIME) from analyze\_electrictable join collectorInformation join areaInformation on collectorInformation.AID=areaInformation.AID on COLLECTIP=collectorInformation.macAddress group by DBTIME,areaInformation.BID Order by DBTIME", buildingactive(0).ConnectionString

Do Until LastTimeR.EOF

buildinglastTime = CStr(LastTimeR(0))

LastTimeR.MoveNext

Loop

LastTimeR.Close

LastTimeR2.Open "select max(DBTIME) from analyze\_humituretable join collectorInformation join areaInformation on collectorInformation.AID=areaInformation.AID on COLLECTIP=collectorInformation.macAddress group by DBTIME,areaInformation.BID Order by DBTIME", buildingactive(1).ConnectionString

Do Until LastTimeR2.EOF

buildinglastTime2 = CStr(LastTimeR2(0))

LastTimeR2.MoveNext

Loop

LastTimeR2.Close

buildingactive(0).RecordSource = "Select sum(ACTIVEENERGY) as 电量汇总,DBTIME,areaInformation.BID from analyze\_electrictable join collectorInformation join areaInformation on collectorInformation.AID=areaInformation.AID on COLLECTIP=collectorInformation.macAddress where DBTIME>dateadd(MINUTE,-10,cast('" & buildinglastTime & "'as datetime)) group by DBTIME,areaInformation.BID Order by DBTIME"

buildingactive(1).RecordSource = "Select avg(cast(TEMP AS int)) as 温度平均值,avg(cast(HUMIDITY as int)) as 湿度平均值,CONVERT(varchar,DBTIME,120),areaInformation.BID from analyze\_humituretable join collectorInformation join areaInformation on collectorInformation.AID=areaInformation.AID on COLLECTIP=collectorInformation.macAddress where DBTIME>dateadd(MINUTE,-10,cast('" & buildinglastTime2 & "'as datetime)) group by CONVERT(varchar,DBTIME,120),areaInformation.BID Order by CONVERT(varchar,DBTIME,120)"

buildingactive(1).Refresh

buildingactive(0).Refresh

If buildingactive(0).Recordset.RecordCount > 0 Then '如果电量记录集有数据才显示电量之和曲线

ReDim Mydata(buildingactive(0).Recordset.RecordCount - 1, 1) '重定义采集器电量汇总之和的数组

ReDim HUMIDITYData(buildingactive(1).Recordset.RecordCount - 1, 1) As Double

For i = 0 To buildingactive(0).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(buildingactive(0).Recordset(1).Value))

Maxdate = buildingactive(0).Recordset(1).Value

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

Maxdate0 = buildingactive(0).Recordset(1).Value

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

If Maxdate > Maxdata0 Then Maxdata0 = Maxdate

TempACTIVEENERGYY = buildingactive(0).Recordset(0).Value '将电量第一个数设为y轴最小值

If i = 0 Then

MaxACTIVEENERGYY = TempACTIVEENERGYY: MinACTIVEENERGYY = TempACTIVEENERGYY

End If

If TempACTIVEENERGYY > MaxACTIVEENERGYY Then MaxACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最大值

If TempACTIVEENERGYY < MinACTIVEENERGYY Then MinACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最小值

Mydata(i, 0) = TimeValue(buildingactive(0).Recordset(1).Value) '第2列时间值存放电量X轴数据

Mydata(i, 1) = buildingactive(0).Recordset(0).Value '第4列存入电量之和Y轴数据

buildingactive(0).Recordset.MoveNext

Next i

With ACTIVEENERGYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxACTIVEENERGYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinACTIVEENERGYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 20 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = Mydata

End With

ReDim TEMPData(buildingactive(1).Recordset.RecordCount - 1, 1) '重定义建筑物的温度数组

ReDim HUMIDITYData(buildingactive(1).Recordset.RecordCount - 1, 1) '重定义建筑物的温度数组

For i = 0 To buildingactive(1).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(buildingactive(1).Recordset(2).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

Temptemp = buildingactive(1).Recordset(0).Value '将温度第一个数设为y轴最小值

TempHUMIDITYY = buildingactive(1).Recordset(1).Value '将湿度第一个数设为y轴最小值

If i = 0 Then

MaxtempY = Temptemp: MintempY = Temptemp

MaxHUMIDITYY = TempHUMIDITYY: MinHUMIDITYYY = TempHUMIDITYY

End If

If Temptemp > MaxtempY Then MaxtempY = Temptemp '求建筑物温度Y轴最大值

If Temptemp < MintempY Then MintempY = Temptemp '求建筑物温度Y轴最小值

If TempHUMIDITYY > MaxtempY Then MaxtempY = TempHUMIDITYY '求建筑物温度Y轴最大值

If TempHUMIDITYY < MinHUMIDITYYY Then MinHUMIDITYYY = TempHUMIDITYY '求建筑物湿度Y轴最小值

TEMPData(i, 0) = TimeValue(buildingactive(1).Recordset(2).Value) '第3列时间值存放建筑物X轴数据

TEMPData(i, 1) = buildingactive(1).Recordset(0).Value '第1列存入温度Y轴数据

HUMIDITYData(i, 0) = TimeValue(buildingactive(1).Recordset(2).Value) '第3列时间值存放X轴数据

HUMIDITYData(i, 1) = buildingactive(1).Recordset(1).Value '第1列存入湿度平均值Y轴数据

buildingactive(1).Recordset.MoveNext

Next i

With TEMPChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxtempY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MintempY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = TEMPData

End With

With HUMIDITYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxHUMIDITYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinHUMIDITYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = HUMIDITYData

End With

End If '结束一个有数据的建筑物曲线显示

End If '结束一个建筑物的曲线显示

buildingR.MoveNext

Loop

buildingR.Close

Do Until AreaR.EOF '遍历二级采集器目录节点并显示

strCodeAreatagName = Trim(AreaR.Fields("tagName"))

'strCodeCOLLECTIP = AreaR.Fields("macAddress")

If Node.Text = strCodeAreatagName Then '选中区域节点

Timerarea.Enabled = True

Timerbuilding.Enabled = False

Timerplug.Enabled = False

Timercollector = False

VOLTAGEchart.Visible = False '不显示电压曲线表

CURRENTChart.Visible = False '不显示电流曲线表

LastTimeR.Open "Select max(DBTIME) from analyze\_electrictable join collectorInformation on COLLECTIP=collectorInformation.macAddress group by DBTIME,collectorInformation.AID ", area(0).ConnectionString

Do Until LastTimeR.EOF

arealastTime = CStr(LastTimeR(0))

LastTimeR.MoveNext

Loop

LastTimeR.Close

LastTimeR2.Open "select max(DBTIME) from analyze\_humituretable join collectorInformation on COLLECTIP=collectorInformation.macAddress group by DBTIME,collectorInformation.AID ", area(1).ConnectionString

Do Until LastTimeR2.EOF

arealastTime2 = CStr(LastTimeR2(0))

LastTimeR2.MoveNext

Loop

LastTimeR2.Close

area(0).RecordSource = "Select sum(ACTIVEENERGY) as 电量汇总,DBTIME,collectorInformation.AID from analyze\_electrictable join collectorInformation on COLLECTIP=collectorInformation.macAddress where DBTIME>dateadd(MINUTE,-10,cast('" & arealastTime & "'as datetime)) group by DBTIME,collectorInformation.AID Order by DBTIME"

area(1).RecordSource = "Select avg(cast(TEMP AS int)) as 温度平均值,avg(cast(HUMIDITY as int)) as 湿度平均值,CONVERT(varchar,DBTIME,120),collectorInformation.AID from analyze\_humituretable join collectorInformation on COLLECTIP=collectorInformation.macAddress where DBTIME>dateadd(MINUTE,-10,cast('" & arealastTime2 & "'as datetime)) group by CONVERT(varchar,DBTIME,120),collectorInformation.AID Order by CONVERT(varchar,DBTIME,120)"

' area(1).RecordSource = "Select avg(cast(TEMP AS int)) as 温度平均值,avg(cast(HUMIDITY as int)) as 湿度平均值,DBTIME,collectorInformation.AID from analyze\_humituretable join collectorInformation on COLLECTIP=collectorInformation.macAddress where DBTIME>dateadd(MINUTE,-10,cast('" & arealastTime2 & "'as datetime)) group by DBTIME,collectorInformation.AID Order by DBTIME"

area(1).Refresh

area(0).Refresh

If area(0).Recordset.RecordCount > 0 Then '如果记录集有数据才显示曲线

ReDim Mydata(area(0).Recordset.RecordCount - 1, 1) '重定义采集器电量汇总之和的数组

For i = 0 To area(0).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(area(0).Recordset(1).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

TempACTIVEENERGYY = area(0).Recordset(0).Value '将电量第一个数设为y轴最小值

If i = 0 Then

MaxACTIVEENERGYY = TempACTIVEENERGYY: MinACTIVEENERGYY = TempACTIVEENERGYY

End If

If TempACTIVEENERGYY > MaxACTIVEENERGYY Then MaxACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最大值

If TempACTIVEENERGYY < MinACTIVEENERGYY Then MinACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最小值

Mydata(i, 0) = TimeValue(area(0).Recordset(1).Value) '第2列时间值存放电量X轴数据

Mydata(i, 1) = area(0).Recordset(0).Value '第4列存入电量之和Y轴数据

area(0).Recordset.MoveNext

Next i

With ACTIVEENERGYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxACTIVEENERGYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinACTIVEENERGYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 20 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = Mydata

End With

ReDim TEMPData(area(1).Recordset.RecordCount - 1, 1) '重定义建筑物的温度数组

ReDim HUMIDITYData(area(1).Recordset.RecordCount - 1, 1) '重定义建筑物的温度数组

For i = 0 To area(1).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(area(1).Recordset(2).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

Temptemp = area(1).Recordset(0).Value '将温度第一个数设为y轴最小值

TempHUMIDITYY = area(1).Recordset(1).Value '将湿度第一个数设为y轴最小值

If i = 0 Then

MaxtempY = Temptemp: MintempY = Temptemp

MaxHUMIDITYY = TempHUMIDITYY: MinHUMIDITYYY = TempHUMIDITYY

End If

If Temptemp > MaxtempY Then MaxtempY = Temptemp '求采集器温度Y轴最大值

If Temptemp < MintempY Then MintempY = Temptemp '求采集器温度Y轴最小值

If TempHUMIDITYY > MaxtempY Then MaxtempY = TempHUMIDITYY '求采集器温度Y轴最大值

If TempHUMIDITYY < MinHUMIDITYYY Then MinHUMIDITYYY = TempHUMIDITYY '求采集器湿度Y轴最小值

TEMPData(i, 0) = TimeValue(area(1).Recordset(2).Value) '第3列时间值存放采集器X轴数据

TEMPData(i, 1) = area(1).Recordset(0).Value '第1列存入温度Y轴数据

HUMIDITYData(i, 0) = TimeValue(area(1).Recordset(2).Value) '第3列时间值存放X轴数据

HUMIDITYData(i, 1) = area(1).Recordset(1).Value '第1列存入湿度平均值Y轴数据

area(1).Recordset.MoveNext

Next i

With TEMPChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxtempY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MintempY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = TEMPData

End With

With HUMIDITYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxHUMIDITYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinHUMIDITYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = HUMIDITYData

End With

End If '结束一个有数据的区域曲线显示

End If '结束一个区域的曲线显示

AreaR.MoveNext

Loop

AreaR.Close

collectorR.Open "select \* from collectorInformation ", collector(0).ConnectionString

Do Until collectorR.EOF '遍历二级采集器目录节点并显示

strCodecollectortagName = Trim(collectorR.Fields("tagName"))

' strCodeCOLLECTIP = Trim(collectorR.Fields("macAddress"))

strCodeCOLLECTIP = collectorR.Fields("macAddress")

If Node.Text = strCodecollectortagName Then '选中采集器节点

Timercollector.Enabled = True

Timerbuilding.Enabled = False

Timerarea.Enabled = False

Timerplug.Enabled = False

VOLTAGEchart.Visible = False '不显示电压曲线表

CURRENTChart.Visible = False '不显示电流曲线表

LastTimeR.Open "Select max(DBTIME) from analyze\_electrictable where COLLECTIP='" & strCodeCOLLECTIP & "' group by COLLECTIP ", collector(0).ConnectionString

Do Until LastTimeR.EOF

collectorlastTime = CStr(LastTimeR(0))

LastTimeR.MoveNext

Loop

Print collectorlastTime

LastTimeR.Close

LastTimeR2.Open "select max(DBTIME) from analyze\_humituretable where COLLECTIP='" & strCodeCOLLECTIP & "'group by COLLECTIP", collector(1).ConnectionString

Do Until LastTimeR2.EOF

collectorlastTime2 = CStr(LastTimeR2(0))

LastTimeR2.MoveNext

Loop

Print collectorlastTime2

LastTimeR2.Close

collector(0).RecordSource = "Select sum([CURRENT]) as 电流汇总,DBTIME,COLLECTIP,sum(VOLTAGE) as 电压汇总,sum(ACTIVEENERGY) as 电量汇总 from analyze\_electrictable where COLLECTIP='" & strCodeCOLLECTIP & "' and DBTIME>dateadd(MINUTE,-30,cast('" & collectorlastTime & "'as datetime)) group by DBTIME,COLLECTIP Order by DBTIME"

collector(1).RecordSource = "Select avg(cast(TEMP AS int)) as 温度平均值,avg(cast(HUMIDITY as int)) as 湿度平均值,CONVERT(varchar,DBTIME,120),COLLECTIP from analyze\_humituretable where COLLECTIP='" & strCodeCOLLECTIP & "' and DBTIME>dateadd(MINUTE,-10,cast('" & collectorlastTime2 & "'as datetime))group by CONVERT(varchar,DBTIME,120),COLLECTIP"

collector(0).Refresh

collector(1).Refresh

If collector(0).Recordset.RecordCount > 0 Then '如果记录集有数据才显示曲线

ReDim Mydata(collector(0).Recordset.RecordCount - 1, 1) '重定义采集器电量汇总之和的数组

ReDim CURRENTData(collector(0).Recordset.RecordCount - 1, 1) '重定义采集器电流汇总之和的数组

ReDim VOLTAGEData(collector(0).Recordset.RecordCount - 1, 1) '重定义采集器电压之和数组

For i = 0 To collector(0).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(collector(0).Recordset(1).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

TempACTIVEENERGYY = collector(0).Recordset(4).Value '将电量第一个数设为y轴最小值

TempCurrentY = collector(0).Recordset(0).Value '将电流第一个数设为y轴最小值

TempVoltageY = collector(0).Recordset(3).Value '将电压第一个数设为y轴最小值

If i = 0 Then

MaxY = TempCurrentY: MinY = TempCurrentY

MaxVoltageY = TempVoltageY: MinVoltageY = TempVoltageY

MaxACTIVEENERGYY = TempACTIVEENERGYY: MinACTIVEENERGYY = TempACTIVEENERGYY

End If

If TempACTIVEENERGYY > MaxACTIVEENERGYY Then MaxACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最大值

If TempACTIVEENERGYY < MinACTIVEENERGYY Then MinACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最小值

If TempCurrentY > MaxY Then MaxY = TempCurrentY '求采集器电流之和Y轴最大值

If TempCurrentY < MinY Then MinY = TempCurrentY '求采集器电流之和Y轴最小值

If TempVoltageY > MaxVoltageY Then MaxVoltageY = TempVoltageY '求采集器电压之和Y轴最大值

If TempVoltageY < MinVoltageY Then MinVoltageY = TempVoltageY '求采集器电压之和Y轴最小值

Mydata(i, 0) = TimeValue(collector(0).Recordset(1).Value) '第2列时间值存放电量X轴数据

'Mydata(i, 0) = collector(0).Recordset(1).Value '第2列时间值存放电量X轴数据

Mydata(i, 1) = collector(0).Recordset(4).Value '第4列存入电量之和Y轴数据

CURRENTData(i, 0) = TimeValue(collector(0).Recordset(1).Value) '第2列时间值存放电流X轴数据

CURRENTData(i, 1) = collector(0).Recordset(0).Value '第1列存入电流之和Y轴数据

VOLTAGEData(i, 0) = TimeValue(collector(0).Recordset(1).Value) '第2列时间值存放电压X轴数据

VOLTAGEData(i, 1) = collector(0).Recordset(3).Value '第4列存入电压之和Y轴数据

collector(0).Recordset.MoveNext

Next i

'collector(0).Recordset.Close

With ACTIVEENERGYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxACTIVEENERGYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinACTIVEENERGYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 10 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = Mydata

End With

With CURRENTChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxX

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinY

' .Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 10 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxY + 5

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = CURRENTData

End With

With VOLTAGEchart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxVoltageY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinVoltageY

'.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 10 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = VOLTAGEData

End With

ReDim TEMPData(collector(1).Recordset.RecordCount - 1, 1) '重定义采集器的温度数组

ReDim HUMIDITYData(collector(1).Recordset.RecordCount - 1, 1) '重定义采集器温度数组

For i = 0 To collector(1).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(collector(1).Recordset(2).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

Temptemp = collector(1).Recordset(0).Value '将温度第一个数设为y轴最小值

TempHUMIDITYY = collector(1).Recordset(1).Value '将湿度第一个数设为y轴最小值

If i = 0 Then

MaxtempY = Temptemp: MintempY = Temptemp

MaxHUMIDITYY = TempHUMIDITYY: MinHUMIDITYYY = TempHUMIDITYY

End If

If Temptemp > MaxtempY Then MaxtempY = Temptemp '求区域温度Y轴最大值

If Temptemp < MintempY Then MintempY = Temptemp '求区域温度Y轴最小值

If TempHUMIDITYY > MaxtempY Then MaxtempY = TempHUMIDITYY '求区域温度Y轴最大值

If TempHUMIDITYY < MinHUMIDITYYY Then MinHUMIDITYYY = TempHUMIDITYY '求区域湿度Y轴最小值

TEMPData(i, 0) = TimeValue(collector(1).Recordset(2).Value) '第3列时间值存放区域X轴数据

TEMPData(i, 1) = collector(1).Recordset(0).Value '第1列存入温度Y轴数据

HUMIDITYData(i, 0) = TimeValue(collector(1).Recordset(2).Value) '第3列时间值存放X轴数据

HUMIDITYData(i, 1) = collector(1).Recordset(1).Value '第1列存入湿度平均值Y轴数据

collector(1).Recordset.MoveNext

Next i

With TEMPChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxtempY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MintempY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = TEMPData

End With

With HUMIDITYChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxHUMIDITYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinHUMIDITYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = HUMIDITYData

End With

End If '结束一个有数据的采集器曲线显示

End If '结束一个采集器的曲线显示

collectorR.MoveNext

Loop

collectorR.Close

Dim analyze\_electrictableR As New ADODB.Recordset '插座电量等数据表的记录集对象

plugR.Open "select \* from pluginInformation", plug(0).ConnectionString

Do Until plugR.EOF '遍历三级插座目录节点并显示

strCodeplugtagName = Trim(plugR.Fields("tagName"))

strCodeplugmacAddress = Trim(plugR.Fields("macAddress"))

If Node.Text = strCodeplugtagName Then '如果选中插座级的节点

Timerplug.Enabled = True

Timercollector = False

Timerbuilding = False

Timerarea = False

CURRENTChart.Visible = True

VOLTAGEchart.Visible = True

LastTimeR.Open "Select max(DBTIME) from analyze\_electrictable where MAC='" & strCodeplugmacAddress & "'", plug(0).ConnectionString

Do Until LastTimeR.EOF

pluglastTime = CStr(LastTimeR(0))

LastTimeR.MoveNext

Loop

Print pluglastTime

LastTimeR.Close

LastTimeR2.Open "select max(DBTIME) from analyze\_humituretable where MAC='" & strCodeplugmacAddress & "'", plug(1).ConnectionString

Do Until LastTimeR2.EOF

pluglastTime2 = CStr(LastTimeR2(0))

LastTimeR2.MoveNext

Loop

Print pluglastTime2

LastTimeR2.Close

plug(0).RecordSource = "Select ACTIVEPOWER,REACTIVEPOWER,VOLTAGE,[CURRENT],ACTIVEENERGY,DBTIME,MAC from analyze\_electrictable where MAC='" & strCodeplugmacAddress & "'and DBTIME>dateadd(MINUTE,-10,cast('" & pluglastTime & "'as datetime)) Order by DBTIME"

'Adodc2.RecordSource = "select TEMP,HUMIDITY,MAC,COLLECTIP,DBTIME from analyze\_humituretable where DBTIME>dateadd(MINUTE,-10,GETDATE())" '显示近10分钟的插座温度，演示系统时要把系统时间设定为10-21 9：01：50，因为这是数据库记录的最后一条记录的插入时间

plug(1).RecordSource = "select TEMP,HUMIDITY,MAC,COLLECTIP,DBTIME from analyze\_humituretable where MAC='" & strCodeplugmacAddress & "' and DBTIME>dateadd(MINUTE,-10,cast('" & pluglastTime2 & "'as datetime)) Order by DBTIME" '显示近10分钟的插座温度，演示系统时要把系统时间设定为10-21 9：01：50，因为这是数据库记录的最后一条记录的插入时间

plug(0).Refresh

plug(1).Refresh

With ACTIVEENERGYChart

.chartType = VtChChartType2dXY '二维散点图，只能显示一条曲线注意本语句的位置，如果放在最后X轴坐标将显示成小数而非时间格式

'图上只画条曲线

.ColumnCount = 2

VOLTAGEchart.ColumnCount = 2

' .RowCount = plug(0).Recordset.RecordCount

'设置XY轴?

.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

VOLTAGEchart.Plot.Axis(VtChAxisIdX).ValueScale.Auto = False

VOLTAGEchart.Plot.Axis(VtChAxisIdY).ValueScale.Auto = False

VOLTAGEchart.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

VOLTAGEchart.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

Title.Text = "电量"

VOLTAGEchart.Title.Text = "电压"

ReDim Mydata(plug(0).Recordset.RecordCount - 1, 1) '重定义电量数组

ReDim CURRENTData(plug(0).Recordset.RecordCount - 1, 1) '重定义电流数组

ReDim VOLTAGEData(plug(0).Recordset.RecordCount - 1, 1) '电压数组

For i = 0 To plug(0).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(plug(0).Recordset(5).Value))

'Print TempSec

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求最大值

If TempSec < MinSec Then MinSec = TempSec '求最小值

TempACTIVEENERGYY = plug(0).Recordset(4).Value '将电量第一个数设为y轴最小值

If i = 0 Then

MaxACTIVEENERGYY = TempACTIVEENERGYY: MinACTIVEENERGYY = TempACTIVEENERGYY

End If

If TempACTIVEENERGYY > MaxACTIVEENERGYY Then MaxACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最大值

If TempACTIVEENERGYY < MinACTIVEENERGYY Then MinACTIVEENERGYY = TempACTIVEENERGYY '求采集器电量之和Y轴最小值

VOLTAGEData(i, 0) = TimeValue(plug(0).Recordset(5).Value) '第6列时间值存放电压X轴数据

CURRENTData(i, 0) = TimeValue(plug(0).Recordset(5).Value) '第6列时间值存放电流X轴数据

Mydata(i, 0) = TimeValue(plug(0).Recordset(5).Value) '第6列时间值存放X轴数据

Mydata(i, 1) = plug(0).Recordset(4).Value '第5列电量存放Y轴数据

'MyData(i, 2) = plug(0).Recordset(1).Value '第2列存放Y轴数据

VOLTAGEData(i, 1) = plug(0).Recordset(2).Value '第3列存入电压Y轴数据

CURRENTData(i, 1) = plug(0).Recordset(3).Value '第4列存入电流Y轴数据

plug(0).Recordset.MoveNext

Next i

Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

Plot.SeriesCollection(1).Pen.Width = 50 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

'.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxACTIVEENERGYY + 0.1

Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinACTIVEENERGYY

.ChartData = Mydata '电量数据?

With VOLTAGEchart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 300

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 10 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

End With

With CURRENTChart

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = 1

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = 0

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = 0

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = CURRENTData

End With

VOLTAGEchart.ChartData = VOLTAGEData '数据?

End With

'MSChart1.Plot.UniformAxis = False

If plug(1).Recordset.RecordCount > 0 Then '如果记录集有数据才显示曲线

ReDim TEMPData(plug(1).Recordset.RecordCount - 1, 1) '重定义插座的温度数组

ReDim HUMIDITYData(plug(1).Recordset.RecordCount - 1, 1) '重定义插座的温度数组

For i = 0 To plug(1).Recordset.RecordCount - 1

TempSec = DateDiff("s", "0:0:0", TimeValue(plug(1).Recordset(4).Value))

If i = 0 Then

MaxSec = TempSec: MinSec = TempSec

End If

If TempSec > MaxSec Then MaxSec = TempSec '求x轴最大值

If TempSec < MinSec Then MinSec = TempSec '求x轴最小值

Temptemp = plug(1).Recordset(0).Value '将温度第一个数设为y轴最小值

TempHUMIDITYY = plug(1).Recordset(1).Value '将湿度第一个数设为y轴最小值

If i = 0 Then

MaxtempY = Temptemp: MintempY = Temptemp

MaxHUMIDITYY = TempHUMIDITYY: MinHUMIDITYYY = TempHUMIDITYY

End If

If Temptemp > MaxtempY Then MaxtempY = Temptemp '求插座温度Y轴最大值

If Temptemp < MintempY Then MintempY = Temptemp '求插座温度Y轴最小值

If TempHUMIDITYY > MaxtempY Then MaxtempY = TempHUMIDITYY '求插座温度Y轴最大值

If TempHUMIDITYY < MinHUMIDITYYY Then MinHUMIDITYYY = TempHUMIDITYY '求插座湿度Y轴最小值

TEMPData(i, 0) = TimeValue(plug(1).Recordset(4).Value) '第5列时间值存放电量X轴数据

TEMPData(i, 1) = plug(1).Recordset(0).Value '第1列存入温度Y轴数据

HUMIDITYData(i, 0) = TimeValue(plug(1).Recordset(4).Value) '第5列时间值存放电量X轴数据

HUMIDITYData(i, 1) = plug(1).Recordset(1).Value '第1列存入温度Y轴数据

plug(1).Recordset.MoveNext

Next i

With TEMPChart

.Title.Text = "温度"

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxtempY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MintempY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = TEMPData

End With

With HUMIDITYChart

.Title.Text = "湿度"

.Plot.Axis(VtChAxisIdY).ValueScale.Maximum = MaxHUMIDITYY + 5

.Plot.Axis(VtChAxisIdY).ValueScale.Minimum = MinHUMIDITYY

.Plot.SeriesCollection(1).Pen.VtColor.Set 0, 0, 255 '//第一条为理想曲线,设置为蓝色

.Plot.SeriesCollection(1).Pen.Width = 40 '//设置为较细

.Plot.Axis(VtChAxisIdX).ValueScale.Maximum = MaxSec \* DblSec

.Plot.Axis(VtChAxisIdX).ValueScale.Minimum = MinSec \* DblSec

.ChartData = HUMIDITYData

End With

End If '结束一个有数据的插座温度曲线显示

End If

plugR.MoveNext

Loop

End Sub

**（通用）\_buildtree**

Public Function buildtree() '建立导航目录树

Dim R As New ADODB.Recordset '根目录节点的记录集对象（建筑物）

Dim AreaR As New ADODB.Recordset '一级目录节点的记录集对象（区域）

Dim collectorR As New ADODB.Recordset '二级目录节点的记录集对象（采集器）

Dim plugR As New ADODB.Recordset '三级目录节点的记录集对象（插座）

R.Open "select \* from buildingInformation", Adodc1.ConnectionString

With TreeView1.Nodes

'清空列表

.Clear

Do Until R.EOF '遍历根目录节点并显示

strCode = Trim(R.Fields("BID"))

' Print strCode

' Select Case Len(strCode)

' Case 1

TreeView1.Nodes.Add , , "A" & strCode, R.Fields("tagName") 'Treeview 的 Key 用于直接访问节点。不能是数字，前面要加一个字符

AreaR.Open "select \* from areaInformation ", Adodc1.ConnectionString

Do Until AreaR.EOF '遍历一级区域目录节点并显示

strCodeAreaBID = Trim(AreaR.Fields("BID"))

strCodeAreaAID = Trim(AreaR.Fields("AID"))

' Print strCodeAreaBID

If strCodeAreaBID = strCode Then

Set nodeTemp = .Item("A" & strCode)

'Print nodeTemp

If nodeTemp Is Nothing Then Exit Do 'error

TreeView1.Nodes.Add nodeTemp, tvwChild, "A" & strCodeAreaBID & strCodeAreaAID, AreaR.Fields("tagName")

End If

collectorR.Open "select \* from collectorInformation ", Adodc1.ConnectionString

Do Until collectorR.EOF '遍历二级采集器目录节点并显示

strCodecollectorAID = Trim(collectorR.Fields("AID"))

strCodecollectorCID = Trim(collectorR.Fields("CID"))

If strCodecollectorAID = strCodeAreaAID Then

Set nodeTemp = .Item("A" & strCode & strCodeAreaAID)

If nodeTemp Is Nothing Then Exit Do 'error

TreeView1.Nodes.Add nodeTemp, tvwChild, "A" & strCodeAreaBID & strCodeAreaAID & strCodecollectorCID, collectorR.Fields("tagName")

plugR.Open "select \* from pluginInformation", Adodc1.ConnectionString

Do Until plugR.EOF '遍历三级插座目录节点并显示

strCodeplugPID = Trim(plugR.Fields("PID"))

strCodeplugCID = Trim(plugR.Fields("CID"))

If strCodeplugCID = strCodecollectorCID Then

Set nodeTemp = .Item("A" & strCodeAreaBID & strCodeAreaAID & strCodecollectorCID)

If nodeTemp Is Nothing Then Exit Do 'error

TreeView1.Nodes.Add nodeTemp, tvwChild, "A" & strCodeAreaBID & strCodeAreaAID & strCodecollectorCID & strCodeplugPID, plugR.Fields("tagName")

End If

plugR.MoveNext

Loop

plugR.Close

End If

collectorR.MoveNext

Loop

collectorR.Close

AreaR.MoveNext

Loop

AreaR.Close

R.MoveNext

Loop

R.Close

End With

Set R = Nothing

End Function