**Excel&VBA入门与代码解析**

**2019-6-15**

1. **Excel&VBA介绍**
2. 学习群：QQ群搜索“EXCEL”,“VBA”等，或者直接添加本人群，QQ群：170986447，验证码：东
3. 学习资料：《Excel.VBA从入门到精通》以及群资料
4. **“选股模型”代码解析**

**打开“选股模型”，ALT+F11进入代码编辑窗口，可以查看代码**

'注意，以“'”开头的文本都是注释，程序中不运行

Sub Basic\_inf() '基本信息录入，从文件夹《1.基本信息》中读取“Table.xls”至sheet4 “基本信息”表格

Application.DisplayAlerts = False '关闭警告

Application.ScreenUpdating = False '关闭屏幕更新

Application.Calculation = xlCalculationAutomatic '启动自动计算模式

Dim thisBK As String '定义字符串，“这个工作簿”

Dim I As Long, J As Long, K As Long '定义循环变量

st = Timer '记录开始时间

thisBK = ThisWorkbook.Name '这个工作簿的名字

Sheet8.Range("a2:j10000").ClearContents '清理相关内容

URL = ThisWorkbook.Path '这个工作簿的路径，电脑中的地址

Workbooks(thisBK).Sheets("基本信息").Range("a2:cc10000").ClearContents '清理相关内容

Workbooks.Open Filename:=URL & "\1.基本信息\Table.xls" '打开同目录下的 \1.基本信息\Table.xls 文件

Workbooks(thisBK).Sheets("基本信息").Activate

J = 1

Application.Calculation = xlCalculationManual

For I = 2 To 4000

If IsNumeric(Workbooks("Table.xls").Sheets("Table").Cells(I, 5)) And Len(Workbooks("Table.xls").Sheets("Table").Cells(I, 5)) > 0 Then

J = J + 1

Workbooks(thisBK).Sheets("基本信息").Cells(J, 1) = J - 1

Workbooks(thisBK).Sheets("基本信息").Cells(J, 2) = Format(Trim(Workbooks("Table.xls").Sheets("Table").Cells(I, 2)), "000000") '

For K = 3 To 38

Workbooks(thisBK).Sheets("基本信息").Cells(J, K) = Trim(Workbooks("Table.xls").Sheets("Table").Cells(I, K))

Next K

End If

Application.StatusBar = "Finished: " & J

Next

'以循环读取的方式，将Table数据读入至本工作簿的“基本信息”

Set fso = CreateObject("Scripting.FileSystemObject")

Workbooks(thisBK).Sheets("基本信息").Range("bb1") = fso.GetFile(URL & "\1.基本信息\Table.xls").DateLastModified

'记录基本信息最后更新的时间

Windows("Table.xls").Close '关闭Table

FileCopy URL & "\1.基本信息\Table.xls", URL & "\1.基本信息\基本信息-" & Format(Now, "yyyymmddhhmmss") & ".xls"

'备份Table

ActiveWorkbook.Save '保存当前工作簿

Sheet8.Activate '激活sheet8

'MsgBox "基本信息更新完成！" 提示更新完成

Application.StatusBar = "Time using: " & CInt(Timer - st) + 1 & " Seconds!" '记录总共用来多少时间，在状态栏显示

Application.DisplayAlerts = True '打开警告

Application.ScreenUpdating = True '打开屏幕更新

Application.Calculation = xlCalculationAutomatic '启动自动计算模式

End Sub

Sub Capital\_Ind() '获取网站数据——行业资金流

Application.DisplayAlerts = False '关闭警告

Application.ScreenUpdating = False '关闭屏幕更新

Application.Calculation = xlCalculationManual '启动手动计算模式

Dim I As Long, J As Long, K As Long, LastR As Long '定义循环变量

Dim URL As String '定义字符串 用于存储地址

Dim HtmlStr As String '定义字符串，用于返回网站字符串

Dim StrTemp1 As String, StrTemp2 As String, StrTemp3 As String '定义一些中间处理字符串

Dim StrTemp() As String '定义一个数组

Sheet1.Range("a2:e10000").ClearContents '清空相应位置的内容

URL = "http://nufm.dfcfw.com/EM\_Finance2014NumericApplication/JS.aspx?cmd=C.\_BKHY&type=ct&st=(BalFlowMain)&sr=-1&p=1&ps=500&js={pages:(pc),data:[(x)]}&token=894050c76af8597a853f5b408b759f5d&sty=DCFFITABK"

'网站数据地址，在浏览器输入上述网址，可以查看数据样式

With CreateObject("msxml2.xmlhttp")

.Open "GET", URL, False

.setRequestHeader "if-Modified-Since", "0"

.send

HtmlStr = .responsetext

End With

'调用get方法，获取网站数据，保存至字符串 HtmlStr （百度：VBA get url）

'debug.Print Left(HtmlStr, 200) '调试代码时用于打印查看 返回结果

StrTemp = Split(HtmlStr, "data:[""")

StrTemp1 = StrTemp(1)

StrTemp2 = Split(StrTemp1, """]}")(0)

StrTemp = Split(StrTemp2, """,""")

'反复采用 split 方法切分字符串 HtmlStr，得到一个数组 StrTemp

'StrTemp 数组 每一条为一个行业的资金流相关信息

LastR = UBound(StrTemp) 'StrTemp 数组维数，从0开始计算

For I = 0 To LastR

StrTemp3 = StrTemp(I)

Sheet1.Cells(I + 2, 1) = I + 1

For K = 1 To 4

Sheet1.Cells(I + 2, K + 1) = Split(StrTemp3, ",")(K)

Next

Next

'采用循环，将数组值输出至sheet1，即“行业涨跌”表格

Sheet1.Range("b1:d5000").Sort key1:=Sheet1.Range("d1"), order1:=xlDescending, Header:=xlYes '按涨跌幅排序

Sheet1.Range("l1") = Now '标注更新数据的时间

Application.DisplayAlerts = True '打开警告

Application.ScreenUpdating = True '打开屏幕更新

Application.Calculation = xlCalculationAutomatic '启动自动计算模式

End Sub

Sub Capital\_Stk() '获取股票资金流，代码逻辑同行业资金流 注意参考：Sub Capital\_Ind

Application.DisplayAlerts = False

Application.ScreenUpdating = False

Application.Calculation = xlCalculationManual

Dim I As Long, J As Long, K As Long, LastR As Long

Dim URL As String

Dim HtmlStr As String

Dim StrTemp1 As String, StrTemp2 As String, StrTemp3 As String

Dim StrTemp() As String

Sheet9.Range("a2:f10000").ClearContents

URL = "http://nufm.dfcfw.com/EM\_Finance2014NumericApplication/JS.aspx/JS.aspx?type=ct&st=(BalFlowMain)&sr=-1&p=1&ps=5000&js={pages:(pc),data:[(x)]}&token=894050c76af8597a853f5b408b759f5d&cmd=C.\_AB&sty=DCFFITA"

With CreateObject("msxml2.xmlhttp")

.Open "GET", URL, False

.setRequestHeader "if-Modified-Since", "0"

.send

HtmlStr = .responsetext

End With

StrTemp = Split(HtmlStr, "data:[""")

StrTemp1 = StrTemp(1)

StrTemp2 = Split(StrTemp1, """]}")(0)

StrTemp = Split(StrTemp2, """,""")

LastR = UBound(StrTemp)

For I = 0 To LastR

StrTemp3 = StrTemp(I)

Sheet9.Cells(I + 2, 1) = I + 1

For K = 1 To 5

Sheet9.Cells(I + 2, K + 1) = Split(StrTemp3, ",")(K)

Next

Next

Sheet9.Range("l1") = Now

Application.DisplayAlerts = True '打开警告

Application.ScreenUpdating = True '打开屏幕更新

Application.Calculation = xlCalculationAutomatic '启动自动计算模式

End Sub

Sub Data\_Day\_Review()

'从网站提前日线数据，进行日线指标计算

'循环3300+股票，230个日线数据

'http://pdfm.eastmoney.com/em\_ubg\_pdti\_fast/api/js?cb=jQuery183&TYPE=k&style=top&num=10&rtntype=6&id=6000301

'更改上述地址的id=\*\*\*\*\*,输入浏览器网址栏，可以参考任意股票数据，上证 代码+1 ，深圳 代码 +2

Application.DisplayAlerts = False

Application.ScreenUpdating = False

Application.Calculation = xlCalculationManual

On Error GoTo line1 '若出现错误，跳转到line1行

st\_d = Timer '记录开始时间

Dim I As Long, J As Long, K As Long, LastR As Long

Dim URL As String

Dim HtmlStr As String

Dim StrTemp1 As String, StrTemp2 As String, StrTemp3 As String

Dim StrTemp() As String

Dim Stk\_ID As String

'以上定义了一些长整型 Long，字符串 String变量，带括号的为数值变量

Dim DateS(1 To 230) As String

Dim OpePrz(1 To 230) As Double

Dim ClzPrz(1 To 230) As Double

Dim HigPrz(1 To 230) As Double

Dim LowPrz(1 To 230) As Double

Dim Volume(1 To 230) As Double

'定义数组，分别用于存放 日期 开 收 高 低 量

Sheet3.Range("j2:l10000").ClearContents ' 清理内容

Sheet7.Range("b2:j10000").ClearContents ' 清理内容

lastR\_ID = Sheet8.Range("P2") + 1 '循环结束位置

For K = 2 To lastR\_ID '从2开始循环，综合选股中第2行开始循环，至最后一个代码为止

Sheet7.Range("b2:i1000").ClearContents ' 清理内容

Stk\_ID = IIf(Left(Sheet3.Cells(K, 2), 1) > 5, Sheet3.Cells(K, 2) & "1", Sheet3.Cells(K, 2) & "2") '代码 标准化 +1 或者 +2

'Debug.Print Stk\_ID '用于测试用 debug

For I = 1 To 230

DateS(I) = 0

OpePrz(I) = 0

ClzPrz(I) = 0

HigPrz(I) = 0

LowPrz(I) = 0

Volume(I) = 0

Next I

'初值清零

URL = "http://pdfm.eastmoney.com/em\_ubg\_pdti\_fast/api/js?cb=jQuery&type=k&rtntype=6&style=top&num=240&id=" & Stk\_ID '数据地址

Set HTML = CreateObject("htmlfile")

With CreateObject("msxml2.xmlhttp")

.Open "GET", URL, True

.setRequestHeader "if-Modified-Since", "0"

.send

stime = Now '获取当前时间

While .ReadyState <> 4

DoEvents

ntime = Now '获取循环时间

If DateDiff("s", stime, ntime) > 5 Then

GoTo line1 '判断超出5秒即超时退出过程

End If

Wend

HtmlStr = .responsetext

End With

'获取数据至字符串 HtmlStr 百度：vba 网抓 get

If Len(HtmlStr) > 500 Then

'Debug.Print Left(HtmlStr, 200)

StrTemp = Split(HtmlStr, "data""" & ": [")

StrTemp1 = StrTemp(1)

' Debug.Print Left(StrTemp1, 200)

StrTemp2 = Trim(Split(Split(StrTemp1, "flow")(0), "],")(0))

'Debug.Print Right(StrTemp2, 200)

StrTemp = Split(StrTemp2, """,")

LastR = UBound(StrTemp)

'Debug.Print K; LastR

If LastR >= 230 Then

For I = 1 To 230

DateS(230 - I + 1) = Right(Split(StrTemp(LastR - I + 1), ",")(0), 10)

OpePrz(230 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(1)

ClzPrz(230 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(2)

HigPrz(230 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(3)

LowPrz(230 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(4)

Volume(230 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(5)

'Debug.Print i;

Next I

End If

End If

' 利用循环判断，将字符串 HtmlStr 中的 价格数据 赋值给数组

Sheet7.Range("b2:b231") = Application.WorksheetFunction.Transpose(DateS)

Sheet7.Range("c2:c231") = Application.WorksheetFunction.Transpose(OpePrz)

Sheet7.Range("d2:d231") = Application.WorksheetFunction.Transpose(ClzPrz)

Sheet7.Range("e2:e231") = Application.WorksheetFunction.Transpose(HigPrz)

Sheet7.Range("f2:f231") = Application.WorksheetFunction.Transpose(LowPrz)

Sheet7.Range("g2:g231") = Application.WorksheetFunction.Transpose(Volume)

'将价格数据数组输入至表格"原始价格"

Sheet2.Calculate

Sheet6.Calculate

Sheet3.Cells(K, 10) = Sheet6.Range("t2")

Sheet3.Cells(K, 11) = Sheet2.Range("R2")

Sheet3.Cells(K, 12) = Sheet2.Range("R4")

' 重新计算指定表格，将新的计算结果，返回给综合选股表格的相应位置 如 Sheet3.Cells(K, 12)

GoTo line2 '跳转至 line2

line1:

Sheet3.Cells(K, 10) = 0

Sheet3.Cells(K, 11) = 0

Sheet3.Cells(K, 12) = 0

'得不到结果则返回0

line2:

Application.StatusBar = "step1: 日线选股,已完成: " & K - 1 & "/" & (lastR\_ID - 1) & ",已用时: " & CLng(Timer - st\_d) + 1 & " Seconds!-" & Left(Stk\_ID, 6)

Next K

ActiveWorkbook.Save '保存工作簿

Application.DisplayAlerts = True

Application.ScreenUpdating = True

Application.Calculation = xlCalculationAutomatic

Application.StatusBar = "step1: 日线选股,共用时: " & CLng(Timer - st\_d) + 1 & " Seconds!" '记录总用时

End Sub

Sub Data\_MIN5\_Review()

'5分钟数据获取方式同日线数据，只是更改一下地址信息，如下对比 日线和5分钟

'http://pdfm.eastmoney.com/em\_ubg\_pdti\_fast/api/js?cb=jQ&TYPE=k&style=top&num=10&rtntype=6&id=6000301

'http://pdfm.eastmoney.com/em\_ubg\_pdti\_fast/api/js?cb=jQ&type=m5k&rtntype=6&style=top&num=1500&id=6000301

Application.DisplayAlerts = False

Application.ScreenUpdating = False

Application.Calculation = xlCalculationManual

On Error GoTo line1

st0 = Timer

Dim I As Long, J As Long, K As Long, LastR As Long

Dim StepPara As Long

Dim URL As String

Dim HtmlStr As String

Dim StrTemp1 As String, StrTemp2 As String, StrTemp3 As String

Dim StrTemp() As String

Dim Stk\_ID As String

Dim DateS(1 To 1439) As String

Dim OpePrz(1 To 1439) As Double

Dim ClzPrz(1 To 1439) As Double

Dim HigPrz(1 To 1439) As Double

Dim LowPrz(1 To 1439) As Double

Dim Volume(1 To 1439) As Double

Sheet3.Range("n2:q10000").ClearContents

Sheet3.Range("s2:s10000").ClearContents

lastR\_ID = Sheet8.Range("P2") + 1

For K = 2 To lastR\_ID

'=======Selk Calculate

If Sheet3.Cells(K, 13) = 1 Then

Sheet3.Cells(K, 19) = CLng(Sheet8.Range("o2")) + TimeValue("15:00:00")

End If

If Sheet3.Cells(K, 13) = 0.5 Then

Sheet7.Range("b2:i1000").ClearContents

Stk\_ID = IIf(Left(Sheet3.Cells(K, 2), 1) > 5, Sheet3.Cells(K, 2) & "1", Sheet3.Cells(K, 2) & "2")

Debug.Print Stk\_ID

For I = 1 To 1439

DateS(I) = 0

'OpePrz(I) = 0

ClzPrz(I) = 0

'HigPrz(I) = 0

'LowPrz(I) = 0

'Volume(I) = 0

Next I

'URL = "http://pdfm.eastmoney.com/EM\_UBG\_PDTI\_Fast/api/js?rtntype=6&cb=jQuery&id=" & Stk\_ID & "&type=m" & cycP & "k"

URL = "http://pdfm.eastmoney.com/em\_ubg\_pdti\_fast/api/js?cb=jQuery&type=m5k&rtntype=6&style=top&num=1500&id=" & Stk\_ID

Set HTML = CreateObject("htmlfile")

With CreateObject("msxml2.xmlhttp")

.Open "GET", URL, True

.setRequestHeader "if-Modified-Since", "0"

.send

stime = Now '获取当前时间

While .ReadyState <> 4

DoEvents

ntime = Now '获取循环时间

If DateDiff("s", stime, ntime) > 5 Then

GoTo line1 '判断超出5秒即超时退出过程

End If

Wend

HtmlStr = .responsetext

End With

If Len(HtmlStr) > 500 Then

' Debug.Print Left(HtmlStr, 200)

StrTemp = Split(HtmlStr, "data""" & ": [")

StrTemp1 = StrTemp(1)

' Debug.Print Left(StrTemp1, 200)

StrTemp2 = Trim(Split(Split(StrTemp1, "flow")(0), "],")(0))

'Debug.Print Right(StrTemp2, 200)

StrTemp = Split(StrTemp2, """,")

LastR = UBound(StrTemp)

'Debug.Print K; LastR

If LastR >= 1439 Then

For I = 1 To 1439

DateS(1439 - I + 1) = Right(Split(StrTemp(LastR - I + 1), ",")(0), 16)

' OpePrz(1439 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(1)

ClzPrz(1439 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(2)

' HigPrz(1439 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(3)

' LowPrz(1439 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(4)

' Volume(1439 - I + 1) = Split(StrTemp(LastR - I + 1), ",")(5)

Debug.Print I; DateS(1439 - I + 1); ClzPrz(1439 - I + 1)

Next I

End If

End If

Sheet7.Range("b2:b1440") = Application.WorksheetFunction.Transpose(DateS)

' Sheet7.Range("c2:c1440") = Application.WorksheetFunction.Transpose(OpePrz)

Sheet7.Range("d2:d1440") = Application.WorksheetFunction.Transpose(ClzPrz)

' Sheet7.Range("e2:e1440") = Application.WorksheetFunction.Transpose(HigPrz)

' Sheet7.Range("f2:f1440") = Application.WorksheetFunction.Transpose(LowPrz)

' Sheet7.Range("g2:g1440") = Application.WorksheetFunction.Transpose(Volume)

'\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

'以上代码实现下载5分钟数据至 原始价格 表格，方法同日线数据下载

'\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

'以下代码，基于 原始价格 5分钟数据， 从最后一个收盘价开始循环查找，是否有背离信号

StepPara = Sheet8.Range("o9")

For J = 0 To 47 Step StepPara

Sheet5.Range("l2") = J

Sheet5.Calculate

Sheet11.Calculate

Sheet13.Calculate

Sheet14.Calculate

Sheet15.Calculate

' Calculate

Sheet3.Cells(K, 14) = Sheet15.Range("s2") 'M60

Sheet3.Cells(K, 15) = Sheet11.Range("s2")

Sheet3.Cells(K, 16) = Sheet13.Range("s2")

Sheet3.Cells(K, 17) = Sheet14.Range("s2")

Sheet3.Calculate

'Debug.Print Left(Stk\_ID, 6); "--"; J; Sheet5.Range("m2")

If Sheet3.Cells(K, 4) > 0 Then

Sheet3.Cells(K, 19) = Sheet5.Range("m2")

' GoTo line2

Exit For

Else

Sheet3.Cells(K, 19) = "-"

End If

Next J

GoTo line2

line1:

Sheet3.Cells(K, 14) = 0

Sheet3.Cells(K, 15) = 0

Sheet3.Cells(K, 16) = 0

Sheet3.Cells(K, 17) = 0

Sheet3.Cells(K, 19) = "-"

line2:

Application.StatusBar = "step2:5分钟数据选股,已完成: " & K & " /" & (lastR\_ID - 1) & ",已用时: " & CLng(Timer - st0) + 1 & " Seconds!-" & Left(Stk\_ID, 6)

End If

Next K

'ActiveWorkbook.Save

Application.DisplayAlerts = True

Application.ScreenUpdating = True

Application.Calculation = xlCalculationAutomatic

Application.StatusBar = "step2:5分钟数据回溯,共用时: " & CInt(Timer - st0) + 1 & " Seconds!"

End Sub

Sub Stk\_pool() '将综合选股的结果汇总到 选股结果的页面，呈现出来

Application.DisplayAlerts = False

Application.ScreenUpdating = False

Application.Calculation = xlCalculationManual

Dim lastR\_ID As Long

Dim I As Long, J As Long

Sheet8.Range("a2:l10000").ClearContents '清理内容

Calculate '整个工作簿计算一遍

DoEvents '等待计算完成

lastR\_ID = Sheet8.Range("p3") + 1

If lastR\_ID > 1 Then

Sheet3.Range("w2:af" & lastR\_ID).Copy

Sheet8.Range("a2").PasteSpecial Paste:=xlPasteValues, Operation:=xlNone

End If

'将综合选股的结果，复制到 选股结果 表格

Sheet8.Range("b1:j5000").Sort key1:=Sheet8.Range("i1"), order1:=xlDescending, Header:=xlYes '排序

' Calculate

' DoEvents

End Sub

Sub Stk\_out\_pool() '将选股结果输出至 选股结果 txt

On Error Resume Next

Dim f As String

Dim Inds As String

URL = ThisWorkbook.Path

'将选股结果 逐行写入至txt

If Len(Sheet8.Range("b2")) > 3 Then

f = URL & "\2.选股结果\自动选股-" & Format(Now, "yyyymmddhhmmss") & ".txt"

Open f For Output As #1

For I = 2 To Application.CountA(Sheet8.Range("a:a"))

Print #1, Sheet8.Cells(I, 2)

Next

Close #1

End If

End Sub

Sub Demo\_copy() '备份文件 将此工作簿备份至 \4.参考备份\

SourceFile = ThisWorkbook.FullName

DestFile = ThisWorkbook.Path & "\4.参考备份\选股模型-" & Format(Now, "yyyymmddhhmmss") & ".xlsm"

CopyString = "CMD /C COPY """ & SourceFile & """ """ & DestFile & """"

Call Shell(CopyString, 0)

End Sub

Sub Auto\_Selk() '自动选股 总程序 调用所有的子程序

Application.DisplayAlerts = False

Application.ScreenUpdating = False

Application.Calculation = xlCalculationManual

sttot = Timer

Sheet8.Range("o3") = ""

Call Capital\_Ind

Call Capital\_Stk

Call Data\_Day\_Review 'Day\_Indicator

Call Data\_MIN5\_Review 'Min5\_Indicator

Call Stk\_pool

Call Stk\_out\_pool

Call Demo\_copy

Sheet8.Range("o3") = Now

Application.StatusBar = "选股,共用时: " & CLng((Timer - sttot) / 6) / 10 & " 分钟!"

Application.DisplayAlerts = True

Application.ScreenUpdating = True

Application.Calculation = xlCalculationAutomatic

End Sub