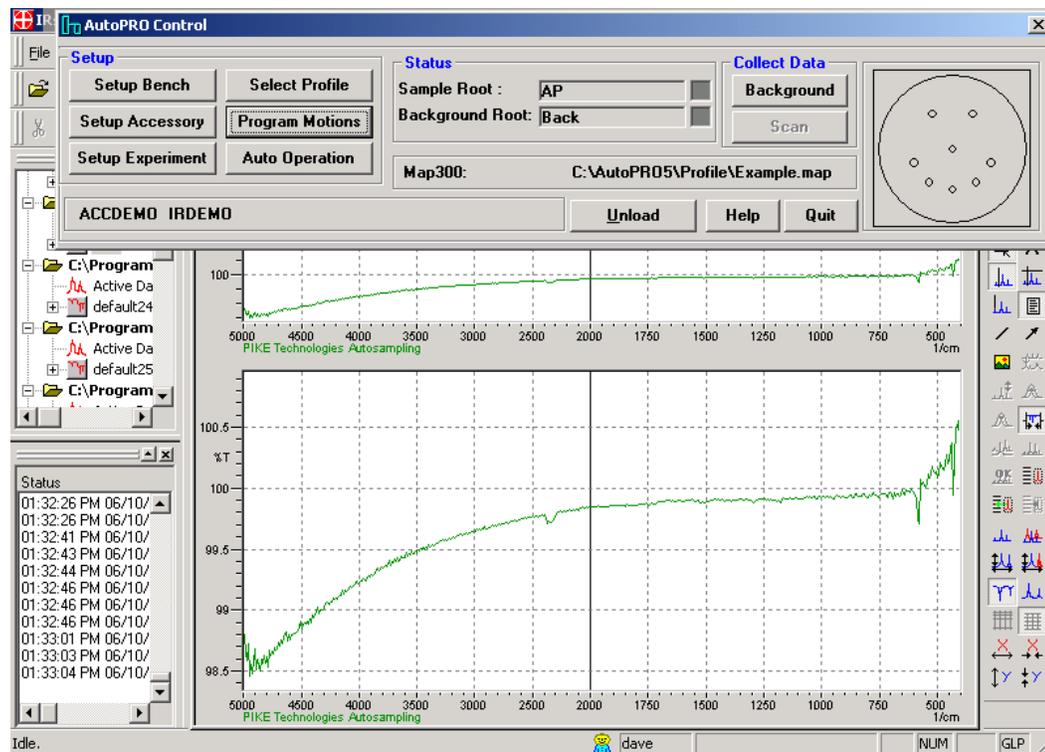

AutoPRO5 Addendum



IR solutions macro for AutoPRO5

Introduction

The macro for IR Solutions, version 1.10, was written for AutoPRO5 software. It integrates the data collection with the stage movements within the IR Solutions software package. It queries the user to select the number of samples to collect, whether a background should be collected and where to save the spectra. Here is some general information regarding the macro



How to load and run the AP5test macro in IR Solutions

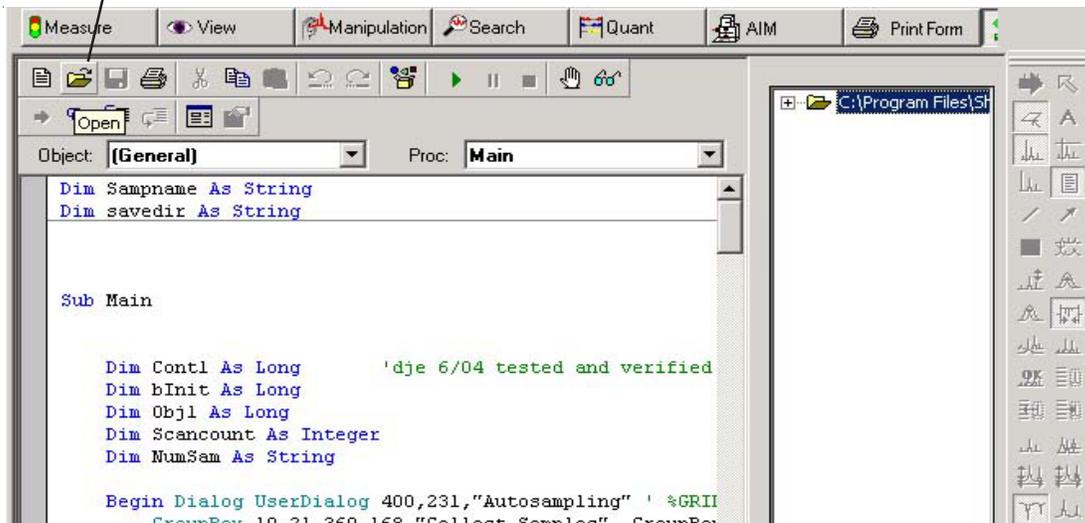
1. Start IR Solutions
2. Open the Sbasic editor by selecting the macro button from the toolbar in IRsolutions.
3. In order to run the executables from within SBASIC, the syntax of the commands should look like this:

```
X = Shell("c:\lct3\init.exe")      ' run the init.exe program
```

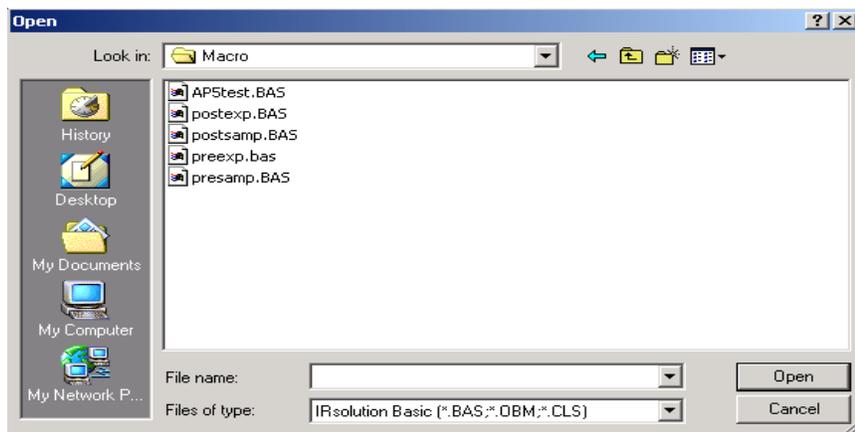
4. Whenever a stage related command is needed in the steps of the macro, run the "shell" command with the related executable file as an argument. Be sure to include the complete path name. Refer to the SBASIC help for more information regarding macro commands. To access help, right click in the macro editor window. It is recommended to start with the sample macro provided in order to become familiar with the syntax. When editing or changing some commands, first save the macro under a different name. A complete listing of the sample macro appears at the end of this document.

5. To load the sample macro, do the following:

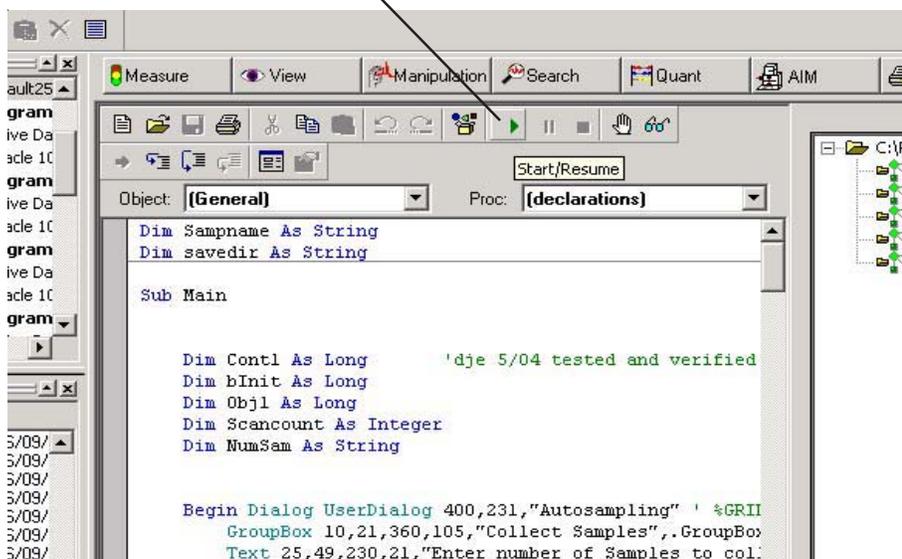
Select the “file open” icon from the tools at the top of the editor window.

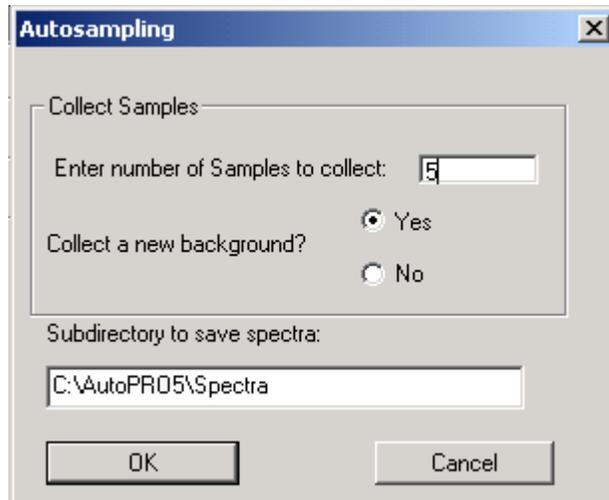


Select the test macro, ap5test.bas, from the list.



Now the macro is loaded into the editor. To run the macro, select the "start/resume" button





This is the dialog that will appear once the macro is started. It gives the user the option of selecting the number of spectra to collect, whether a background collection is desired and where to save the spectra. Once the OK button is hit the stage will proceed to the pre-programmed position defined in the AutoPRO5 application.

Dim Sampname As String
Dim savedir As String

Sub Main

Dim Cont1 As Long 'dje 6/04 tested and verified
Dim bInit As Long
Dim Obj1 As Long
Dim Scancount As Integer
Dim NumSam As String

Begin Dialog UserDialog 400,210,"Autosampling" '%GRID:10,7,1,1
 GroupBox 10,21,360,105,"Collect Samples",.GroupBox1
 Text 25,49,230,21,"Enter number of Samples to collect:",.LabelEnterNumScan
 TextBox 270,49,80,14,.NumSam
 OKButton 20,182,130,21
 CancelButton 240,182,120,21
 Text 20,84,180,14,"Collect a new background?"
 OptionGroup .Group1
 OptionButton 230,70,110,21,"Yes",.OptionButton1
 OptionButton 230,98,90,14,"No",.OptionButton2
 Text 20,126,200,14,"Subdirectory to save spectra:"
 TextBox 20,147,320,21,.savedir

End Dialog
Dim dlg As UserDialog
dlg.group1=0
dlg.numsam="0"
dlg.savedir="C:\AutoPRO5\Spectra"
Dialog dlg

 Sampname=dlg.savedir & "\" & "AP"
 scancount=CInt(dlg.NumSam)

 On Error GoTo exitinitloop
 X = Shell("c:\autopro5\ap5.exe\init.exe") ' run the init program, change these for LCT

 While x <>0
 AppActivate X
 Wend

 exitinitloop:

```

bInit = FTIRIsInitialized
If bInit = 0 Then

    ' Initialize the FTIR
    FTIRInitialize

    wt = Timer + MaxInitDuration
    While bInit = 0 And Timer < wt
        Wait 1
        bInit = FTIRIsInitialized
        If bInit Then
            MsgBox("FTIR initialized")
            GoTo InitOK
        End If
    Wend
    MsgBox("FTIR Init Timeout")
InitOK:
    Else
        ' MsgBox("FTIR already initialized")

End If
' FTIRSetParameter("IntensityMode", "Interferogram")

' FTIRSetParameter("No of Scans", "3")
FTIRSetParameter("Text", "PIKE Technologies Autosampling")

If dlg.group1=0 Then
    FTIRBKG (cont1)
    Do
        Loop While FTIRIsBusy
    End If
' dje 8/03 this works better

For i = 1 To scancount
    On Error GoTo exitnextloop

    X = Shell("c:\autopro5\next.exe")
    ' run the next program
    While x <> 0
        AppActivate X
    Wend

exitnextloop:
    ' MsgBox "Done with next"

```

On Error Resume Next

```
' FTIRScan(cont1)
  ScanSample(i) 'this argument is used for naming
```

```
  Next i
```

```
' FTIRScan(cont1)
'   scansample
```

End Sub

Sub ScanSample(scanctr As Long)

Dim idCont As Variant

Dim tempsampname As String

tempsampname = sampname & scanctr & ".smf"

```
  idCont = NewContainer(tempsampname)
  FTIRScan(idCont)
```

```
  If bMeasure = 0 Then
```

```
    '   MsgBox("Measurement start failed")
```

```
  Else
```

```
    '   WaitMeasureReady
    nObj = GetNoOfObjects(idCont)
```

```
  End If
```

```
  Do
```

```
    Loop While FTIRIsBusy
```

```
  SaveContainer(idcont)
```

End Sub

Sub WaitMeasureReady

Dim bMeasure As Long

Dim wt As Variant

```
wt = Timer + MaxMeasureDuration
  bMeasure = FTIRIsBusy
  While bMeasure <> 0 And Timer < wt
    Wait 1
    bMeasure = FTIRIsBusy
    If bMeasure = 0 Then
      GoTo MeasureOK
    End If
  Wend
  MsgBox("Measurement Timeout")
```

MeasureOK:

End Sub