```
Save File Name: E:\Projects\OceanAcidification\DIC analyzer\Software\TCO2_Li7000_v1.31.vee

Save File Last Revised: Tue Oct 19 13:04:52 2010

Save File Format: 7.0

Agilent VEE Pro Revision: 9.2.13522.0

Execution mode: VEE 6 Execution Mode
```
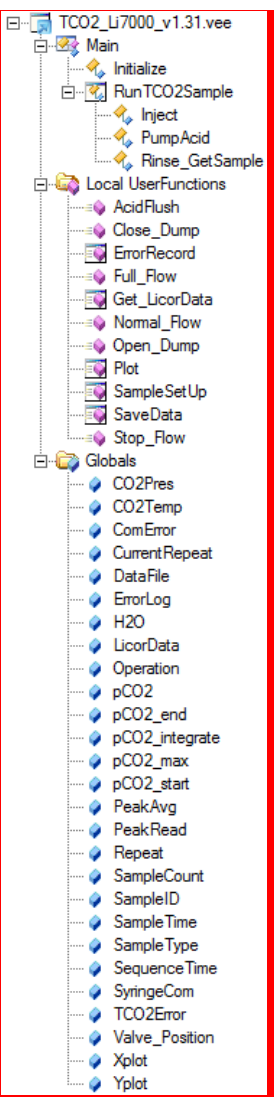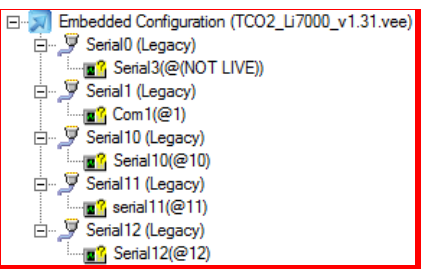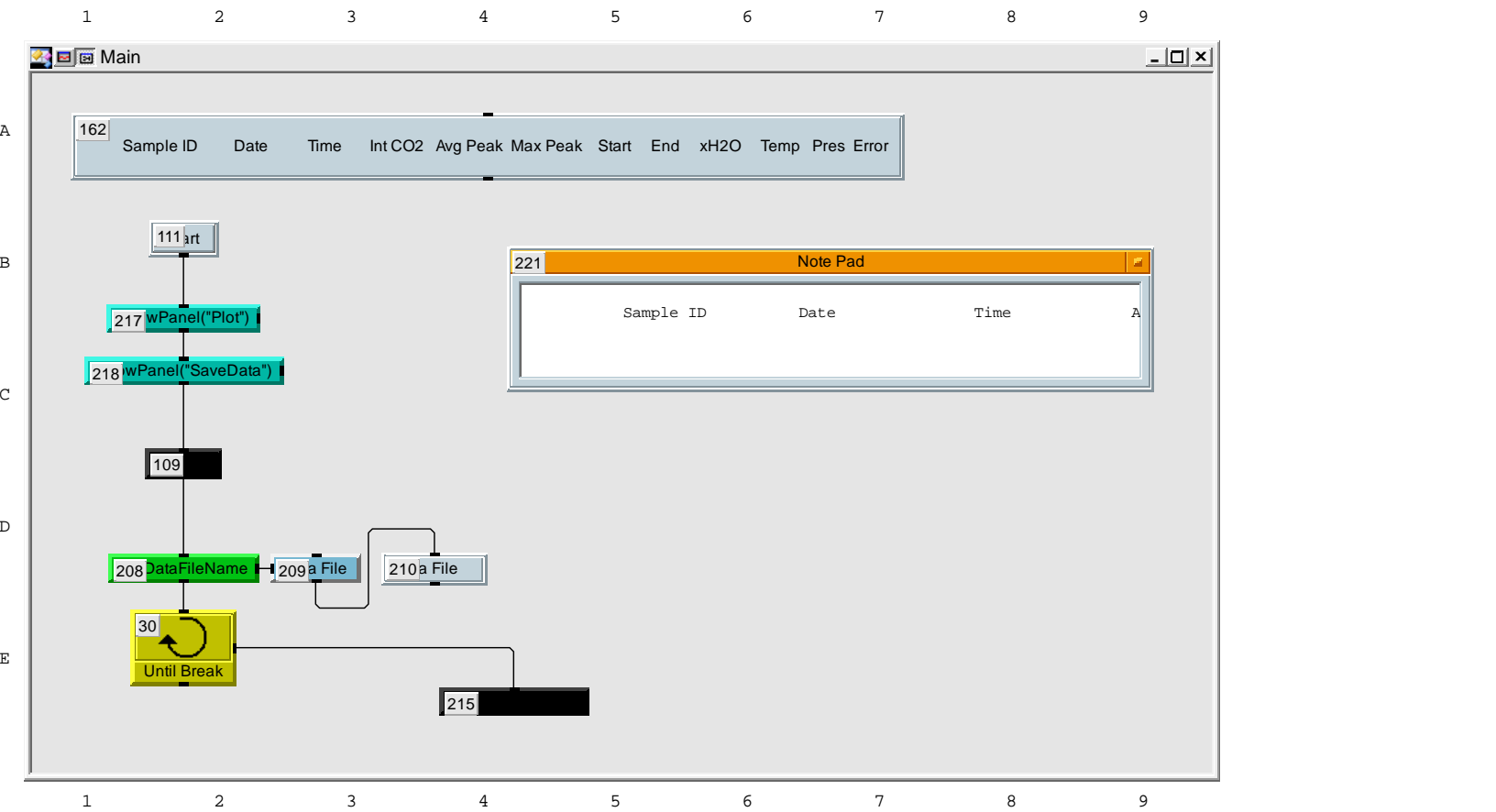
Program Explorer Overview

I/O Configuration

Main (M): Detail View, Total Objects: 11


```
Main  "Main"
├─ 30 at: E2  Until Break "Until Break"
│  ├─ ObjectIndex: M.30
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 109 at: C2  UserObject "Initialize"
├─ 111 at: B2  Start "Start"
│  ├─ ObjectIndex: M.111
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 162 at: A4  Label "         Sample ID         Date         Time         Int CO2   Avg Peak  Max Peak   Start      End    xH2O      Temp   P
│  ├─ ObjectIndex: M.162
│  ├─ Declared Scope: Local to Context
│  ├─ Label: "         Sample ID          Date          Time         Int CO2   Avg Peak  Max Peak    Start     End    xH2O     Temp   Pres  Erro
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 208 at: D2  Get Variable "GetDataFileName"
│  ├─ ObjectIndex: M.208
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "DataFile"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 209 at: D3  AlphaNumeric "Data File" is added to panel
│  ├─ ObjectIndex: M.209
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 210 at: D4  Label "Data File" is added to panel
│  ├─ ObjectIndex: M.210
│  ├─ Declared Scope: Local to Context
│  ├─ Label: "Data File"
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
```

res Error"

r"

```
│  └ ShowIconTitle: true
├ 215 at: E4  UserObject "RunTCO2Sample"
├ 217 at: B2  Formula "ShowPanel("Plot")"
│  ├ ObjectIndex: M.217
│  ├ Declared Scope: Local to Context
│  ├ Formula: ShowPanel("Plot", 0, 0, 880, 340)
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 218 at: C2  Formula "ShowPanel("SaveData")"
│  ├ ObjectIndex: M.218
│  ├ Declared Scope: Local to Context
│  ├ Formula: ShowPanel("SaveData", 0, 400)
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
└ 221 at: B7  Note Pad "Note Pad" is added to panel
   ├ ObjectIndex: M.221
   ├ Declared Scope: Local to Context
   ├ Note Contents: 2 lines.
   │  ┌                                                     ----------------------- CO2 Peak --------------
   │  └          Sample ID        Date          Time          Area      Average  Maximum    Start          End         Water
   ├ ShowTitleBar: true
   ├ ShowTerminals: false
   └ ShowIconTitle: true
```
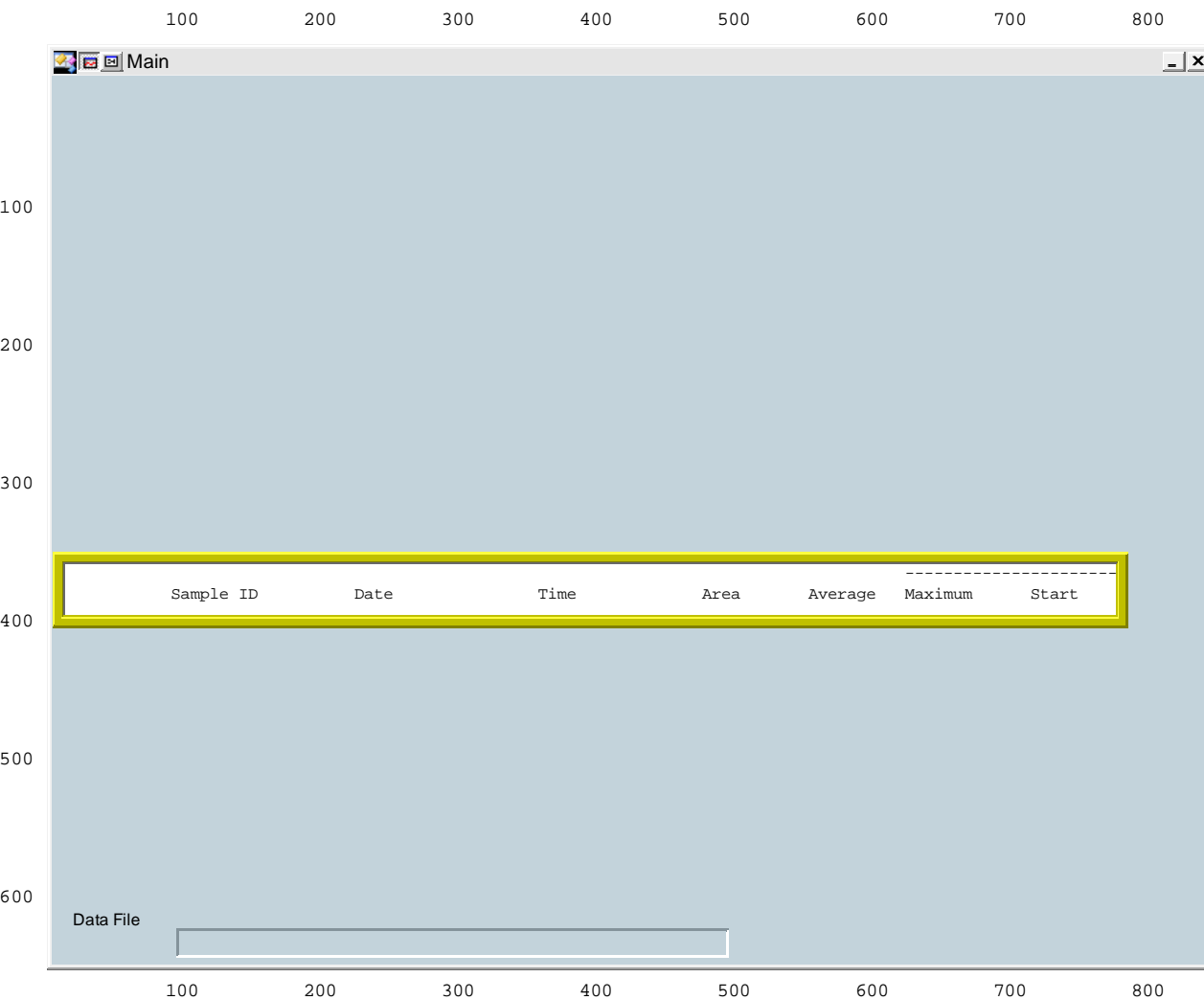
```
---------
     Temp.        Press.          Error
```

Main: Panel View

```
                    Sample ID          Date              Time            Area      Average   Maximum      Start
```

Data File

PanelView "Main" (w=841, h=644)
├ 210: Label "Data File" (x=10, y=600) (w=70, h=25)
├ 209: AlphaNumeric "Data File" (x=90, y=618) (w=400, h=21)
└ 221: Note Pad "Note Pad" (x=0, y=345) (w=780, h=55)

AcidFlush (F19): Detail View, Total Objects: 3


```
UserFunction  "AcidFlush"
├─ 7 at: A1  Start "Start"
│  ├─ ObjectIndex: F19.7
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 18 at: C3  Direct I/O "Serial12 ( @ 12)"
│  ├─ ObjectIndex: F19.18
│  ├─ Declared Scope: Local to Context
│  ├─ Transactions: 8 lines.
│  │  ├─ WRITE BYTE 254
│  │  ├─ WRITE BYTE 9
│  │  ├─ WAIT INTERVAL:.5
│  │  ├─ EXECUTE RESET
│  │  ├─ WRITE BYTE 254
│  │  ├─ WRITE BYTE 1
│  │  ├─ WAIT INTERVAL:.5
│  │  └─ EXECUTE RESET
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
└─ 19 at: B1  For Count "For Count"
   ├─ ObjectIndex: F19.19
   ├─ Declared Scope: Local to Context
   ├─ Count: 10
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```

Close_Dump (F24): Detail View, Total Objects: 2


```
UserFunction  "Close_Dump"
├─ 0 at: C2  Direct I/O "Serial12 ( @ 12)"
│  ├─ ObjectIndex: F24.0
│  ├─ Declared Scope: Local to Context
│  ├─ Transactions: 2 lines.
│  │  ├─ WRITE BYTE 254
│  │  └─ WRITE BYTE 0
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
└─ 1 at: A2  Start "Start"
   ├─ ObjectIndex: F24.1
   ├─ Declared Scope: Local to Context
   ├─ ShowTitleBar: false
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```
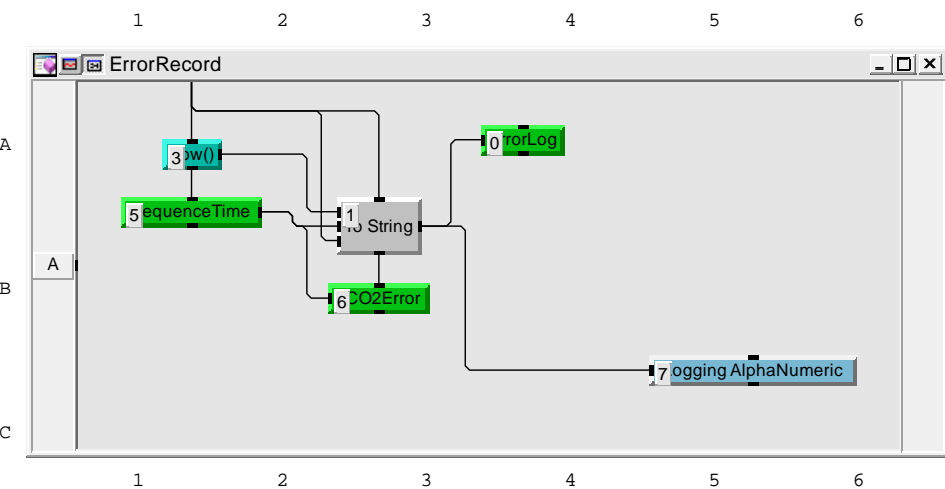
ErrorRecord (F18): Detail View, Total Objects: 6


```
UserFunction  "ErrorRecord"
├─ 0 at: A4  Set Variable "ErrorLog"
│  ├─ ObjectIndex: F18.0
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "ErrorLog"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 1 at: A3  To String "To String"
│  ├─ ObjectIndex: F18.1
│  ├─ Declared Scope: Local to Context
│  ├─ Transactions: 5 lines.
│  │  ├─ WRITE TEXT a DATE:DMY TIME:HMS:H24
│  │  ├─ WRITE TEXT " , " STR
│  │  ├─ WRITE TEXT b
│  │  ├─ WRITE TEXT " , " STR
│  │  └─ WRITE TEXT c EOL
│  ├─ MultiFieldFormat: (...) Syntax
│  ├─ ArrayFormat: Block
│  ├─ ArraySeparator: " "
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 3 at: A1  Formula "now()"
│  ├─ ObjectIndex: F18.3
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: now()
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 5 at: A1  Get Variable "SequenceTime"
│  ├─ ObjectIndex: F18.5
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "SequenceTime"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 6 at: B3  Set Variable "TCO2Error"
│  ├─ ObjectIndex: F18.6
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "TCO2Error"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
└─ 7 at: B5  Logging AlphaNumeric "Logging AlphaNumeric" is added to panel
   ├─ ObjectIndex: F18.7
   ├─ Declared Scope: Local to Context
   ├─ Buffer Size: 256
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```

ErrorRecord: Panel View


```
PanelView "ErrorRecord"  (w=320, h=232)
└─ 7:  Logging AlphaNumeric "Logging AlphaNumeric"  (x=0, y=0) (w=319, h=229)
```

Full_Flow (F22): Detail View, Total Objects: 3


```
UserFunction  "Full_Flow"
├─ 0 at: B2  Direct I/O "Serial12 ( @ 12)"
│  ├─ ObjectIndex: F22.0
│  ├─ Declared Scope: Local to Context
│  ├─ Transactions: 4 lines.
│  │  ├─ WRITE BYTE 254
│  │  ├─ WRITE BYTE 3
│  │  ├─ WRITE BYTE 254
│  │  └─ WRITE BYTE 10
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 2 at: A2  Start "Start"
│  ├─ ObjectIndex: F22.2
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
└─ 3 at: B5  Note Pad "Note Pad"
   ├─ ObjectIndex: F22.3
   ├─ Declared Scope: Local to Context
   ├─ Note Contents: 2 lines.
   │  ├─ Turn off relay #4
   │  └─ Turn on relay #3
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```

Get_LicorData (F14): Detail View, Total Objects: 29
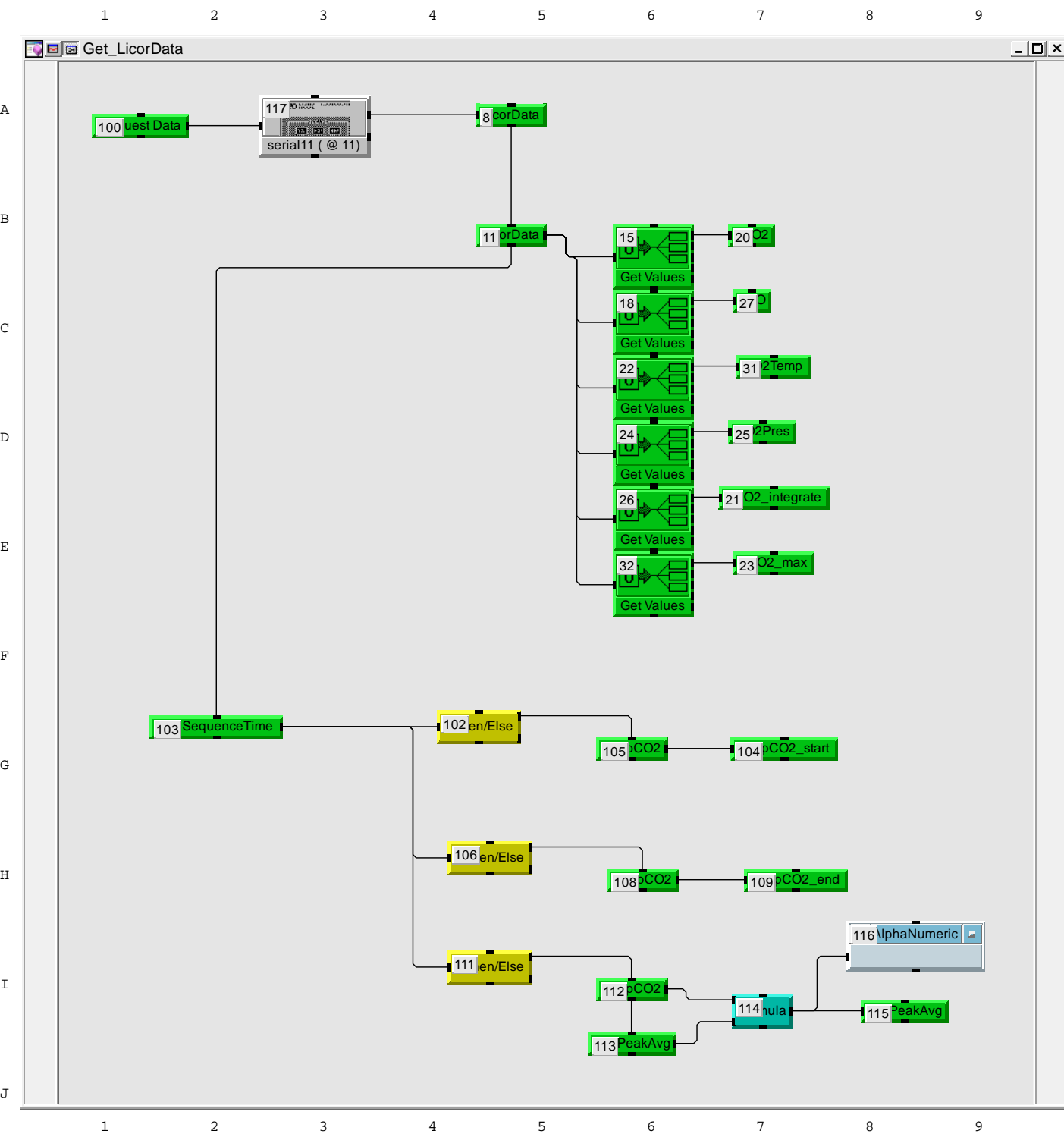

```
UserFunction  "Get_LicorData"
├─ 8 at: A5  Set Variable "LicorData"
│  ├─ ObjectIndex: F14.8
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "LicorData"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 11 at: B5  Get Variable "LicorData"
│  ├─ ObjectIndex: F14.11
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "LicorData"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 15 at: B6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.15
│  ├─ Declared Scope: Local to Context
```

```
     -
├─ Formula: Ary[1]
├─ ShowTitleBar: true
├─ ShowTerminals: true
└─ ShowIconTitle: true
├─ 18 at: C6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.18
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: Ary[2]
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 20 at: B7  Set Variable "pCO2"
│  ├─ ObjectIndex: F14.20
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 21 at: D7  Set Variable "pCO2_integrate"
│  ├─ ObjectIndex: F14.21
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2_integrate"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 22 at: C6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.22
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: Ary[6]
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 23 at: E7  Set Variable "pCO2_max"
│  ├─ ObjectIndex: F14.23
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2_max"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 24 at: D6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.24
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: Ary[5]
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 25 at: D7  Set Variable "CO2Pres"
│  ├─ ObjectIndex: F14.25
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "CO2Pres"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 26 at: E6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.26
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: Ary[3]
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 27 at: C7  Set Variable "H2O"
│  ├─ ObjectIndex: F14.27
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "H2O"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 31 at: C7  Set Variable "CO2Temp"
│  ├─ ObjectIndex: F14.31
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "CO2Temp"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
```
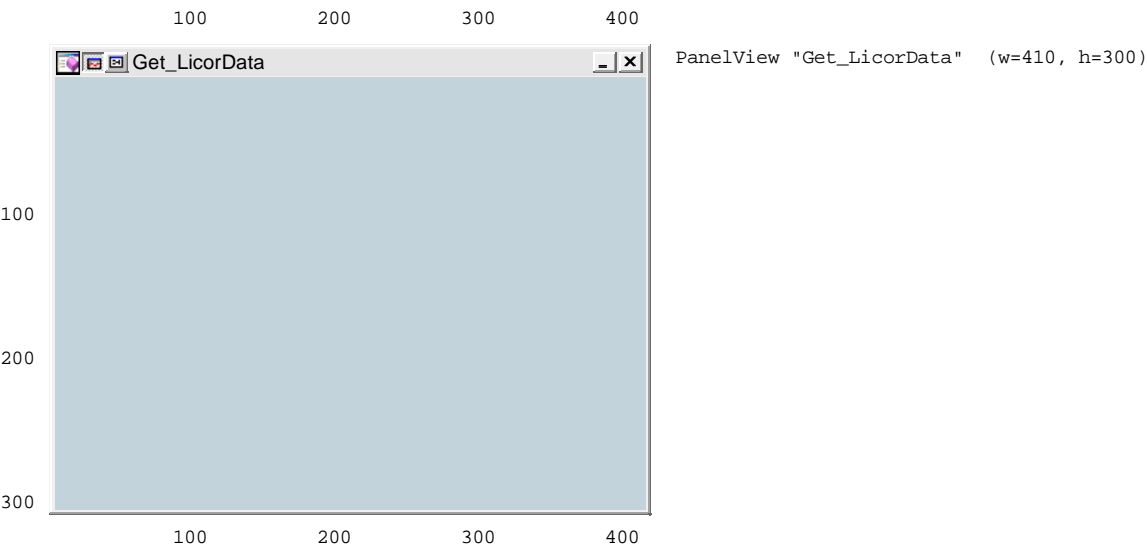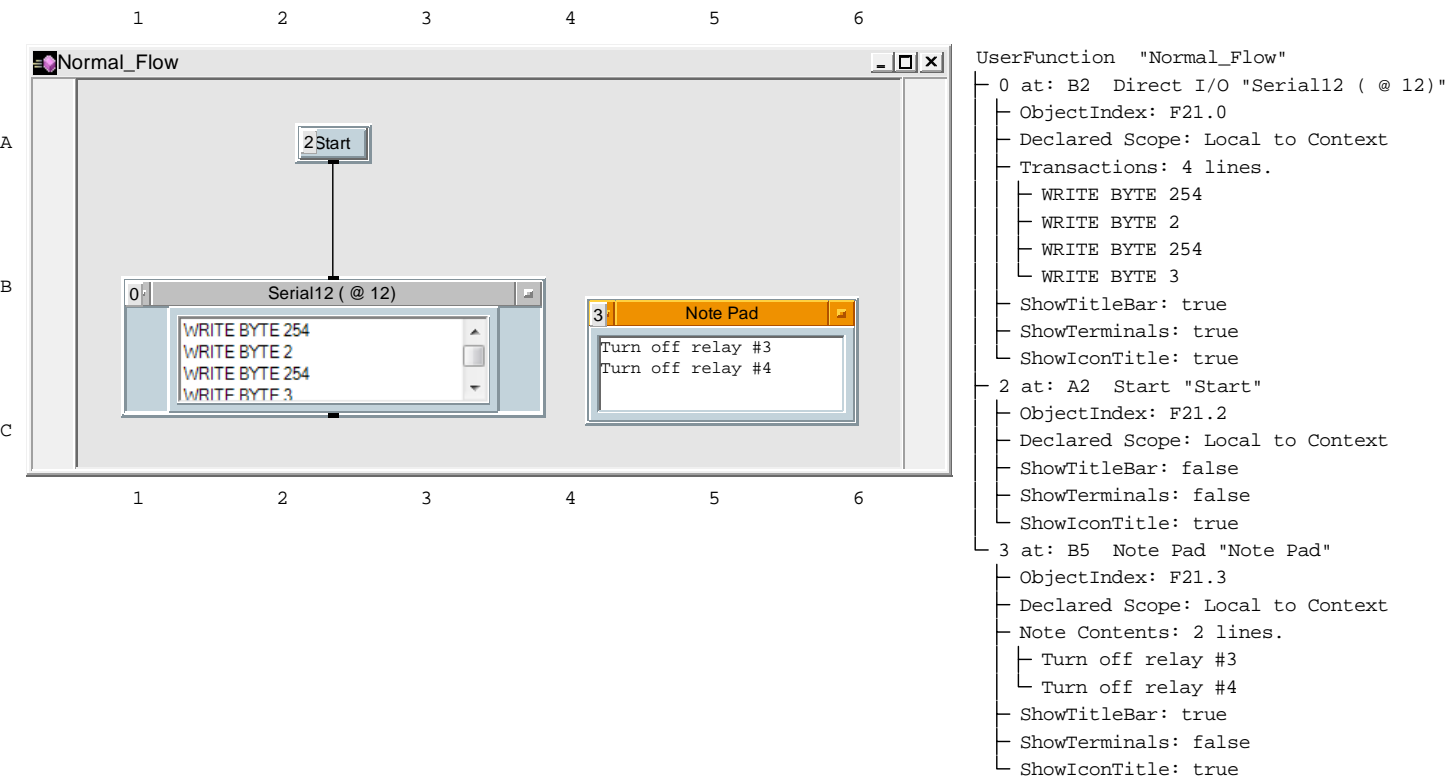
```
├─ 32 at: E6  Get Values "Get Values"
│  ├─ ObjectIndex: F14.32
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: Ary[4]
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 100 at: A1  Text Constant "Request Data"
│  ├─ ObjectIndex: F14.100
│  ├─ Declared Scope: Local to Context
│  ├─ DataShape: Scalar
│  ├─ ArraySize: 10
│  ├─ EnableEditing: true
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 102 at: G4  If/Then/Else "If/Then/Else"
│  ├─ ObjectIndex: F14.102
│  ├─ Declared Scope: Local to Context
│  ├─ If/Else cases: A==75
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 103 at: G2  Get Variable "Get SequenceTime"
│  ├─ ObjectIndex: F14.103
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "SequenceTime"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 104 at: G7  Set Variable "Set pCO2_start"
│  ├─ ObjectIndex: F14.104
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2_start"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 105 at: G6  Get Variable "Get pCO2"
│  ├─ ObjectIndex: F14.105
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 106 at: H4  If/Then/Else "If/Then/Else"
│  ├─ ObjectIndex: F14.106
│  ├─ Declared Scope: Local to Context
│  ├─ If/Else cases: A==159
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 108 at: H6  Get Variable "Get pCO2"
│  ├─ ObjectIndex: F14.108
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 109 at: H7  Set Variable "Set pCO2_end"
│  ├─ ObjectIndex: F14.109
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2_end"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 111 at: I4  If/Then/Else "If/Then/Else"
│  ├─ ObjectIndex: F14.111
│  ├─ Declared Scope: Local to Context
│  ├─ If/Else cases: 75<A AND A<159
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 112 at: I6  Get Variable "Get pCO2"
│  ├─ ObjectIndex: F14.112
```

```
   ├ Declared Scope: Local to Context
   ├ Global Name: "pCO2"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
├ 113 at: I6   Get Variable "Get PeakAvg"
   ├ ObjectIndex: F14.113
   ├ Declared Scope: Local to Context
   ├ Global Name: "PeakAvg"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
├ 114 at: I7   Formula "Formula"
   ├ ObjectIndex: F14.114
   ├ Declared Scope: Local to Context
   ├ Formula: A+B
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
├ 115 at: I8   Set Variable "Set PeakAvg"
   ├ ObjectIndex: F14.115
   ├ Declared Scope: Local to Context
   ├ Global Name: "PeakAvg"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
├ 116 at: I8   AlphaNumeric "AlphaNumeric"
   ├ ObjectIndex: F14.116
   ├ Declared Scope: Local to Context
   ├ ShowTitleBar: true
   ├ ShowTerminals: false
   └ ShowIconTitle: true
└ 117 at: A3   Direct I/O "serial1 ( @ 11)"
   ├ ObjectIndex: F14.117
   ├ Declared Scope: Local to Context
   ├ Transactions: 3 lines.
      ├ WRITE TEXT a STR EOL
      ├ READ TEXT y STR
      └ READ TEXT x REAL64 ARRAY:7
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
```

Get_LicorData: Panel View

```
      100        200        300        400
```


PanelView "Get_LicorData" (w=410, h=300)

Normal_Flow (F21): Detail View, Total Objects: 3


```
UserFunction  "Normal_Flow"
├─ 0 at: B2  Direct I/O "Serial12 ( @ 12)"
│  ├─ ObjectIndex: F21.0
│  ├─ Declared Scope: Local to Context
│  ├─ Transactions: 4 lines.
│  │  ├─ WRITE BYTE 254
│  │  ├─ WRITE BYTE 2
│  │  ├─ WRITE BYTE 254
│  │  └─ WRITE BYTE 3
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 2 at: A2  Start "Start"
│  ├─ ObjectIndex: F21.2
│  ├─ Declared Scope: Local to Context
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
└─ 3 at: B5  Note Pad "Note Pad"
   ├─ ObjectIndex: F21.3
   ├─ Declared Scope: Local to Context
   ├─ Note Contents: 2 lines.
   │  ├─ Turn off relay #3
   │  └─ Turn off relay #4
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```

Open_Dump (F20): Detail View, Total Objects: 2
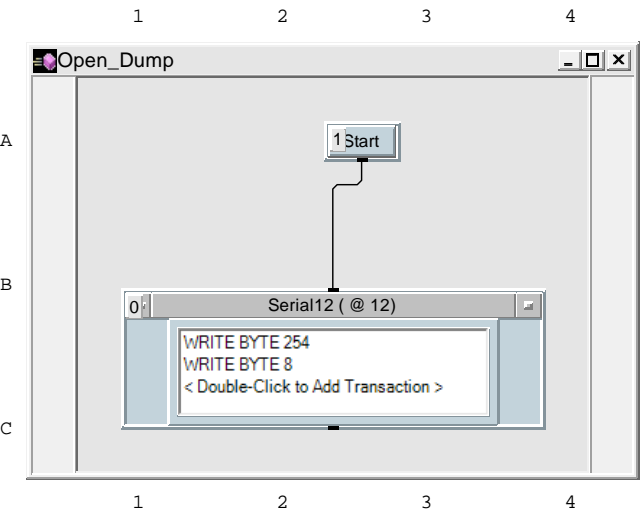

```
UserFunction  "Open_Dump"
├ 0 at: B2  Direct I/O "Serial12 ( @ 12)"
│  ├ ObjectIndex: F20.0
│  ├ Declared Scope: Local to Context
│  ├ Transactions: 2 lines.
│  │  ├ WRITE BYTE 254
│  │  └ WRITE BYTE 8
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
└ 1 at: A2  Start "Start"
   ├ ObjectIndex: F20.1
   ├ Declared Scope: Local to Context
   ├ ShowTitleBar: false
   ├ ShowTerminals: false
   └ ShowIconTitle: true
```

Plot (F15): Detail View, Total Objects: 39
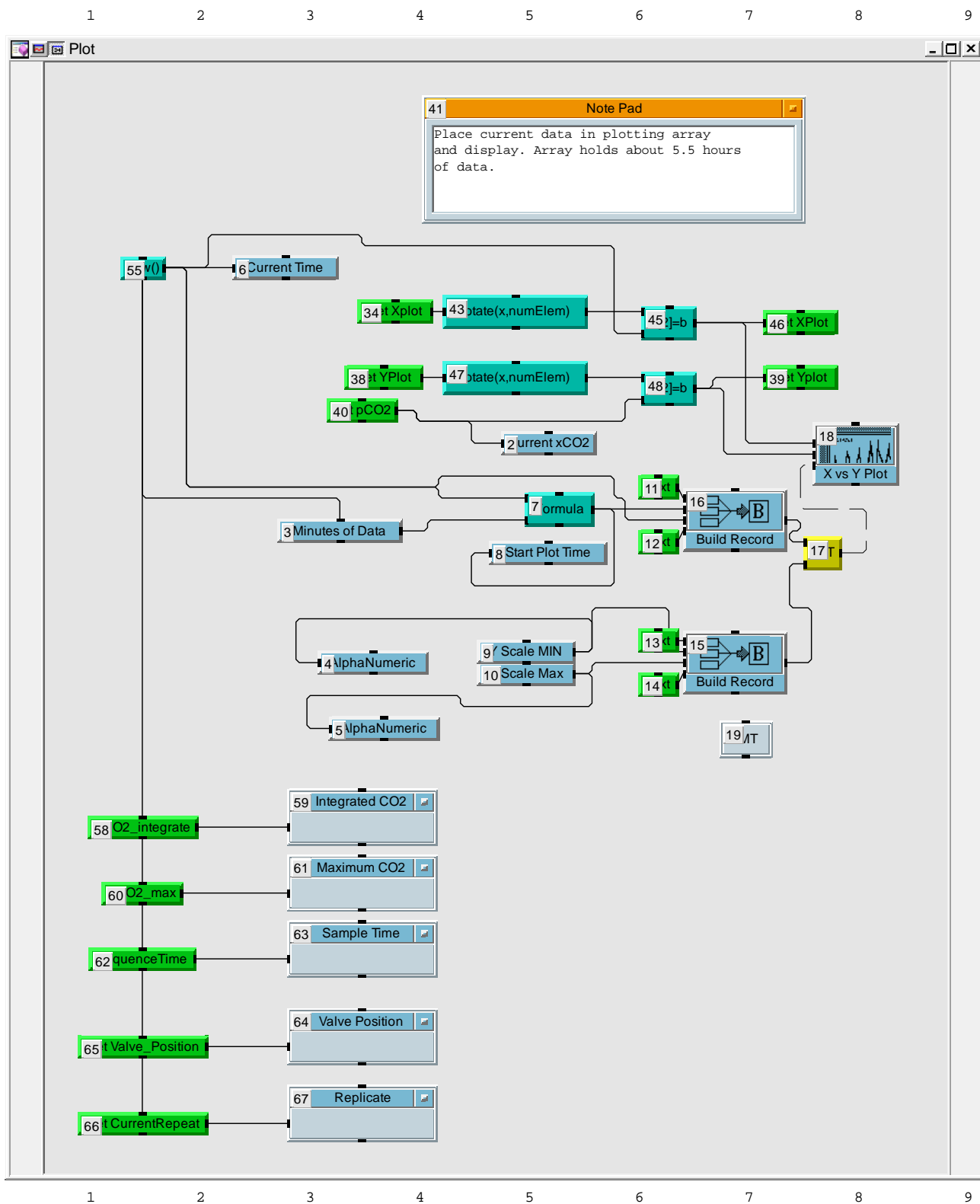

```
UserFunction  "Plot"
├─ 2 at: D5  AlphaNumeric "Current xCO2" is added to panel
│   ├─ ObjectIndex: F15.2
│   ├─ Declared Scope: Local to Context
│   ├─ ClearAtActivate: false
│   ├─ ShowTitleBar: true
│   ├─ ShowTerminals: false
│   └─ ShowIconTitle: true
├─ 3 at: E3  Slider "Minutes of Data" is added to panel
│   ├─ ObjectIndex: F15.3
│   ├─ Declared Scope: Local to Context
│   ├─ InitializeAtPrerun: true
│   ├─ InitialValue: 15
│   ├─ DetentSize: 1
│   └─ EnableEditing: true
```

```
│       └ ─  EnableEditing   true
│       ├ ─  Value Range: 1, 350
│       ├ ─  Detent Size: 1
│       ├ ─  ShowTitleBar: true
│       ├ ─  ShowTerminals: false
│       ├ ─  ShowIconTitle: true
│       └ ─  LabelSpacing: EveryMajorTic
├ ─ 4 at: F3   AlphaNumeric "AlphaNumeric" is added to panel
│    ├ ─  ObjectIndex: F15.4
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  ClearAtActivate: false
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    └ ─  ShowIconTitle: true
├ ─ 5 at: G4   AlphaNumeric "AlphaNumeric" is added to panel
│    ├ ─  ObjectIndex: F15.5
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  ClearAtActivate: false
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    └ ─  ShowIconTitle: true
├ ─ 6 at: B3   AlphaNumeric "Current Time" is added to panel 2 times
│    ├ ─  ObjectIndex: F15.6
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  ClearAtActivate: false
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    └ ─  ShowIconTitle: true
├ ─ 7 at: E5   Formula "Formula"
│    ├ ─  ObjectIndex: F15.7
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  Formula: a-b*60
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: true
│    └ ─  ShowIconTitle: true
├ ─ 8 at: E5   AlphaNumeric "Start Plot Time" is added to panel
│    ├ ─  ObjectIndex: F15.8
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  ClearAtActivate: false
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    └ ─  ShowIconTitle: true
├ ─ 9 at: F5   Slider "Y Scale MIN" is added to panel
│    ├ ─  ObjectIndex: F15.9
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  InitializeAtPrerun: true
│    ├ ─  InitialValue: 0
│    ├ ─  DetentSize: 25
│    ├ ─  EnableEditing: true
│    ├ ─  Value Range: -500, 500
│    ├ ─  Detent Size: 25
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    ├ ─  ShowIconTitle: true
│    └ ─  LabelSpacing: EveryMajorTic
├ ─ 10 at: F5   Slider "Y Scale Max" is added to panel
│    ├ ─  ObjectIndex: F15.10
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  InitializeAtPrerun: true
│    ├ ─  InitialValue: 500
│    ├ ─  DetentSize: 25
│    ├ ─  EnableEditing: true
│    ├ ─  Value Range: 0, 2000
│    ├ ─  Detent Size: 25
│    ├ ─  ShowTitleBar: true
│    ├ ─  ShowTerminals: false
│    ├ ─  ShowIconTitle: true
│    └ ─  LabelSpacing: EveryMajorTic
├ ─ 11 at: D6   Text Constant "Text"
│    ├ ─  ObjectIndex: F15.11
│    ├ ─  Declared Scope: Local to Context
│    ├ ─  DataShape: Scalar
│    ├ ─  ArraySize: 10
│    ├ ─  EnableEditing: true
│    ├ ─  ShowTitleBar: true
```

```
    ├ ShowTerminals: false
    └ ShowIconTitle: true
├ 12 at: E6   Text Constant "Text"
│   ├ ObjectIndex: F15.12
│   ├ Declared Scope: Local to Context
│   ├ DataShape: Scalar
│   ├ ArraySize: 10
│   ├ EnableEditing: true
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: false
│   └ ShowIconTitle: true
├ 13 at: F6   Text Constant "Text"
│   ├ ObjectIndex: F15.13
│   ├ Declared Scope: Local to Context
│   ├ DataShape: Scalar
│   ├ ArraySize: 10
│   ├ EnableEditing: true
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: false
│   └ ShowIconTitle: true
├ 14 at: F6   Text Constant "Text"
│   ├ ObjectIndex: F15.14
│   ├ Declared Scope: Local to Context
│   ├ DataShape: Scalar
│   ├ ArraySize: 10
│   ├ EnableEditing: true
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: false
│   └ ShowIconTitle: true
├ 15 at: F7   Build Record "Build Record"
│   ├ ObjectIndex: F15.15
│   ├ Declared Scope: Local to Context
│   ├ Record output shape: Scalar
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: true
│   └ ShowIconTitle: true
├ 16 at: E7   Build Record "Build Record"
│   ├ ObjectIndex: F15.16
│   ├ Declared Scope: Local to Context
│   ├ Record output shape: Scalar
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: true
│   └ ShowIconTitle: true
├ 17 at: E8   Junction "JCT"
│   ├ ObjectIndex: F15.17
│   ├ Declared Scope: Local to Context
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: true
│   └ ShowIconTitle: true
├ 18 at: D8   X vs Y Plot "X vs Y Plot" is added to panel
│   ├ ObjectIndex: F15.18
│   ├ Declared Scope: Local to Context
│   ├ ClearAtActivate: false
│   ├ ShowTitleBar: true
│   ├ ShowTerminals: true
│   ├ ShowIconTitle: true
│   ├ NumMarkers: None
│   ├ MarkerInterpolate: false
│   ├ MarkerColor: Dark Gray
│   ├ ShowScalesLegend: true
│   ├ ShowScaleLabels: true
│   ├ ShowScrollBars: true
│   ├ ShowAutoScaleButton: true
│   ├ EnableEditTracesAndScales: true
│   └ GridType: Lines
├ 19 at: G7   Label "GMT" is added to panel
│   ├ ObjectIndex: F15.19
│   ├ Declared Scope: Local to Context
│   ├ Label: "GMT"
│   ├ ShowTitleBar: false
│   ├ ShowTerminals: false
│   └ ShowIconTitle: true
├ 34 at: C4   Get Variable "Get Xplot"
│   ├ ObjectIndex: F15.34
```

```
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "Xplot"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 38 at: C4  Get Variable "Get YPlot"
│  ├─ ObjectIndex: F15.38
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "Yplot"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 39 at: C7  Set Variable "Set Yplot"
│  ├─ ObjectIndex: F15.39
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "Yplot"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 40 at: D3  Get Variable "Get pCO2"
│  ├─ ObjectIndex: F15.40
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "pCO2"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 41 at: A6  Note Pad "Note Pad"
│  ├─ ObjectIndex: F15.41
│  ├─ Declared Scope: Local to Context
│  ├─ Note Contents: 3 lines.
│  │  ├─ Place current data in plotting array
│  │  ├─ and display. Array holds about 5.5 hours
│  │  └─ of data.
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 43 at: C5  Formula "rotate(x,numElem)"
│  ├─ ObjectIndex: F15.43
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: rotate(x, 1)
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 45 at: C6  Formula "a[2]=b"
│  ├─ ObjectIndex: F15.45
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: a[0] = b
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 46 at: C7  Set Variable "Set XPlot"
│  ├─ ObjectIndex: F15.46
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "Xplot"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 47 at: C5  Formula "rotate(x,numElem)"
│  ├─ ObjectIndex: F15.47
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: rotate(x, 1)
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 48 at: C6  Formula "a[2]=b"
│  ├─ ObjectIndex: F15.48
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: a[0] = b
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 55 at: B1  Formula "now()"
│  ├─ ObjectIndex: F15.55
│  ├─ Declared Scope: Local to Context
```
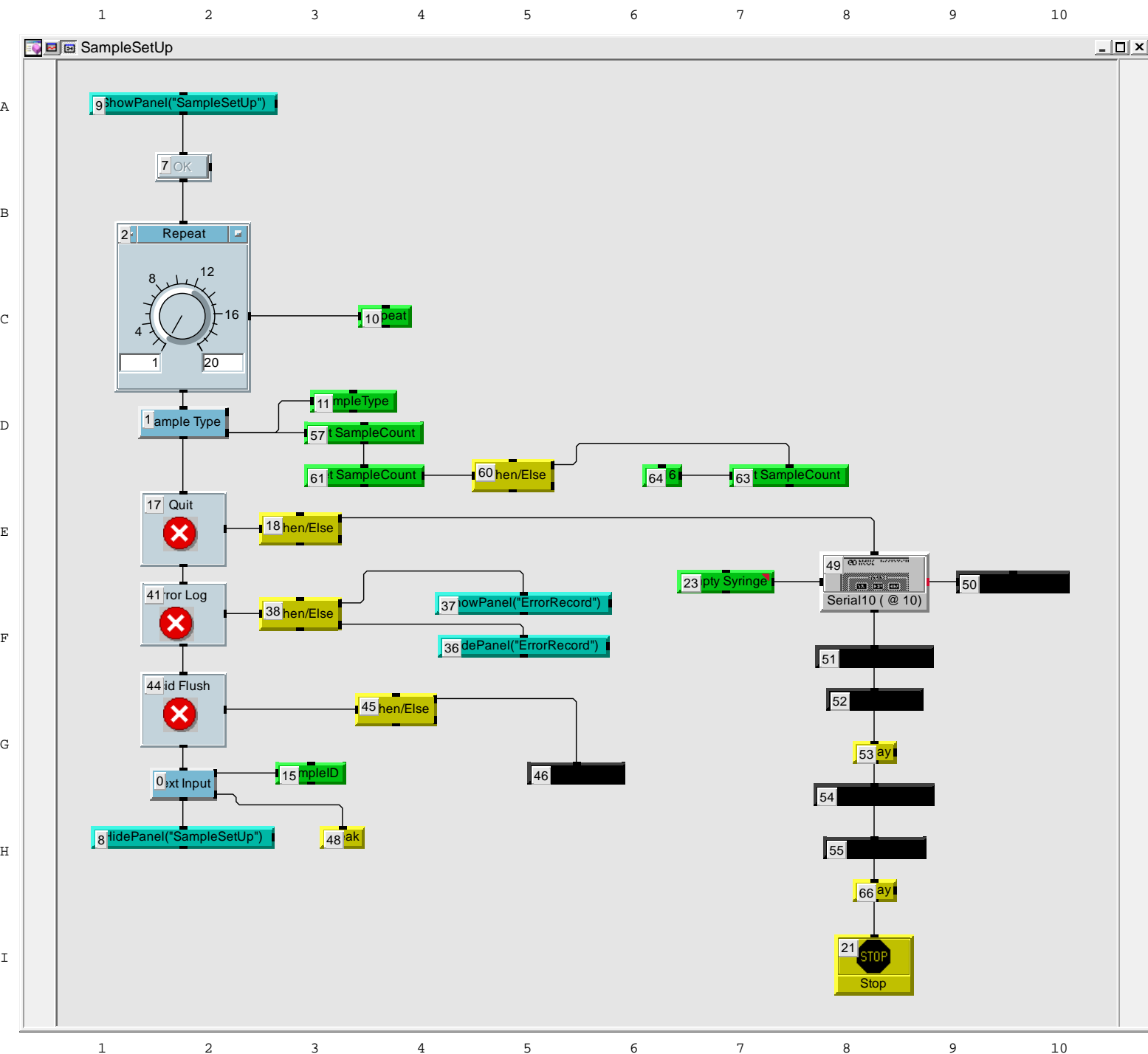
```
   ├─ Formula: now()
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 58 at: G1  Get Variable "pCO2_integrate"
   ├─ ObjectIndex: F15.58
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "pCO2_integrate"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 59 at: G3  AlphaNumeric "Integrated CO2" is added to panel
   ├─ ObjectIndex: F15.59
   ├─ Declared Scope: Local to Context
   ├─ ClearAtActivate: false
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
├─ 60 at: H1  Get Variable "pCO2_max"
   ├─ ObjectIndex: F15.60
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "pCO2_max"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 61 at: H3  AlphaNumeric "Maximum CO2" is added to panel
   ├─ ObjectIndex: F15.61
   ├─ Declared Scope: Local to Context
   ├─ ClearAtActivate: false
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
├─ 62 at: I1  Get Variable "SequenceTime"
   ├─ ObjectIndex: F15.62
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "SequenceTime"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 63 at: I3  AlphaNumeric "Sample Time" is added to panel
   ├─ ObjectIndex: F15.63
   ├─ Declared Scope: Local to Context
   ├─ ClearAtActivate: false
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
├─ 64 at: I3  AlphaNumeric "Valve Position" is added to panel
   ├─ ObjectIndex: F15.64
   ├─ Declared Scope: Local to Context
   ├─ ClearAtActivate: false
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
├─ 65 at: I1  Get Variable "Get Valve_Position"
   ├─ ObjectIndex: F15.65
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "Valve_Position"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
├─ 66 at: J1  Get Variable "Get CurrentRepeat"
   ├─ ObjectIndex: F15.66
   ├─ Declared Scope: Local to Context
   ├─ Global Name: "CurrentRepeat"
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: true
   └─ ShowIconTitle: true
└─ 67 at: J3 AlphaNumeric "Replicate" is added to panel
   ├─ ObjectIndex: F15.67
   ├─ Declared Scope: Local to Context
   ├─ ClearAtActivate: false
   ├─ ShowTitleBar: true
   ├─ ShowTerminals: false
   └─ ShowIconTitle: true
```
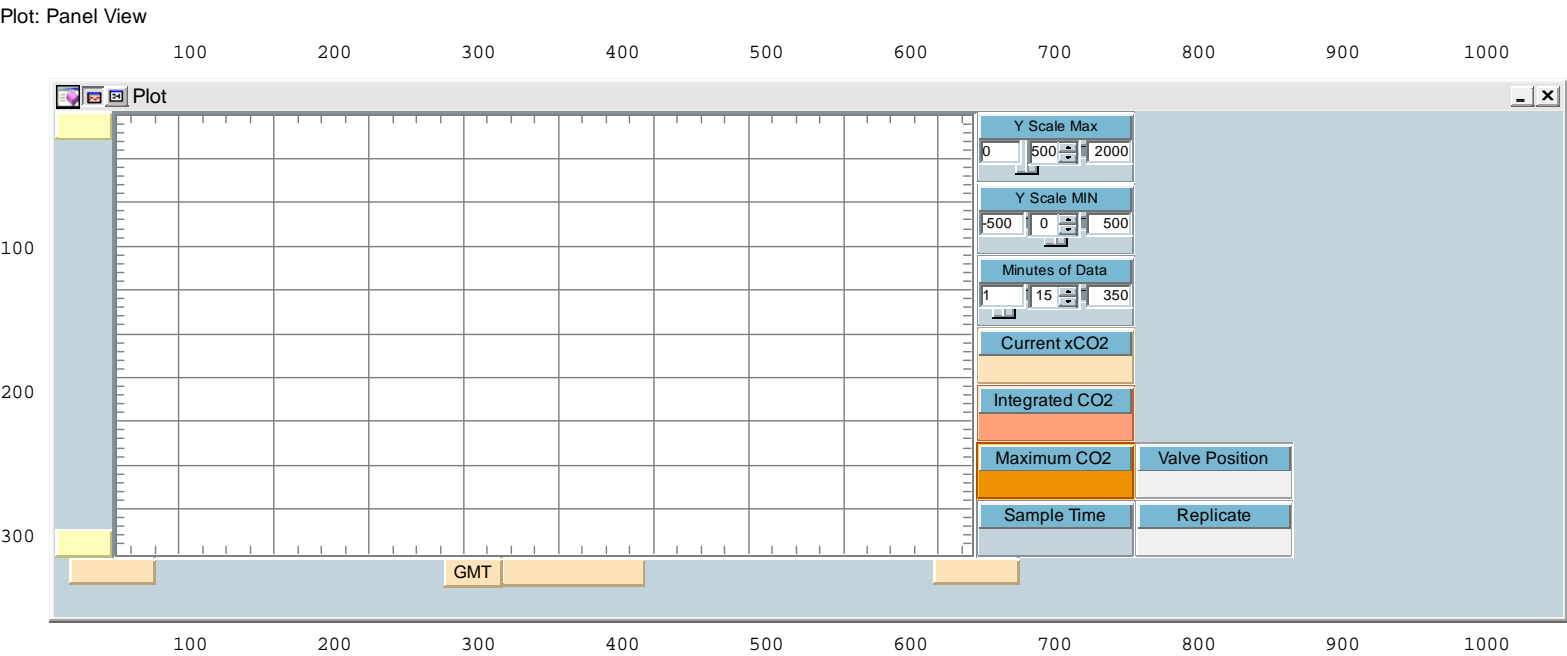
Plot: Panel View


```
PanelView "Plot"  (w=1047, h=351)
├─ 5:  AlphaNumeric "AlphaNumeric"  (x=0, y=0) (w=40, h=20)
├─ 9:  Slider "Y Scale MIN"  (x=640, y=50) (w=110, h=50)
├─ 10:  Slider "Y Scale Max"  (x=640, y=0) (w=110, h=50)
├─ 3:  Slider "Minutes of Data"  (x=640, y=100) (w=110, h=50)
├─ 2:  AlphaNumeric "Current xCO2"  (x=640, y=150) (w=110, h=40)
├─ 59:  AlphaNumeric "Integrated CO2"  (x=640, y=190) (w=110, h=40)
├─ 18:  X vs Y Plot "X vs Y Plot"  (x=40, y=0) (w=600, h=311)
├─ 8:  AlphaNumeric "Start Plot Time"  (x=10, y=310) (w=60, h=19)
├─ 4:  AlphaNumeric "AlphaNumeric"  (x=0, y=290) (w=40, h=20)
├─ 6:  AlphaNumeric "Current Time"  (x=310, y=310) (w=100, h=20)
├─ 19:  Label "GMT"  (x=270, y=310) (w=41, h=21)
├─ 63:  AlphaNumeric "Sample Time"  (x=640, y=270) (w=110, h=40)
├─ 61:  AlphaNumeric "Maximum CO2"  (x=640, y=230) (w=110, h=40)
├─ 6:  AlphaNumeric "Current Time"  (x=610, y=310) (w=60, h=19)
├─ 64:  AlphaNumeric "Valve Position"  (x=750, y=230) (w=110, h=40)
└─ 67:  AlphaNumeric "Replicate"  (x=750, y=270) (w=110, h=40)
```

SampleSetUp (F17): Detail View, Total Objects: 34


```
UserFunction  "SampleSetUp"
├─ 0 at: G2  Text Input "Text Input"
│  ├─ ObjectIndex: F17.0
│  ├─ Declared Scope: Local to Context
│  ├─ PopupTitle: "Enter Sample ID"
│  ├─ PopupPosition: 240, 245
│  ├─ Prompt/Label: "Enter Sample ID"
│  ├─ Default Value: "Test"
│  ├─ Value Constraint: "strLen(value)>0"
│  ├─ Error Message: "You must enter text."
│  ├─ PopupTitleBackColor: Med Dark Orange
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 1 at: D2  Selection Control "Sample Type" is added to panel
│  ├─ ObjectIndex: F17.1
│  ├─ Declared Scope: Local to Context
│  ├─ InitializeAtPrerun: true
│  ├─ EnableEditing: true
│  ├─ ShowTitleBar: true
```

```
├─ ShowTerminals: false
├─ ShowIconTitle: true
├─ Format: Slider List
└─ FormatSliderLayout: Vertical
├─ 2 at: C2  Knob "Repeat" is added to panel
│  ├─ ObjectIndex: F17.2
│  ├─ Declared Scope: Local to Context
│  ├─ InitializeAtPrerun: true
│  ├─ InitialValue: 1
│  ├─ DetentSize: 1
│  ├─ EnableEditing: true
│  ├─ Value Range: 1, 20
│  ├─ Detent Size: 1
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: false
│  ├─ ShowIconTitle: true
│  ├─ ShowDigitalDisplay: false
│  ├─ LabelSpacing: EveryMajorTic
│  └─ Orientation: Horizontal
├─ 7 at: A2  OK "OK" is added to panel
│  ├─ ObjectIndex: F17.7
│  ├─ Declared Scope: Local to Context
│  ├─ Assign to Enter Button: true
│  ├─ Assign to Escape Button: false
│  ├─ Assign to Function Key: None
│  ├─ EnableOnPing: true
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  └─ ShowIconTitle: true
├─ 8 at: H2  Formula "HidePanel("SampleSetUp")"
│  ├─ ObjectIndex: F17.8
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: HidePanel("SampleSetUp")
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 9 at: A2  Formula "ShowPanel("SampleSetUp")"
│  ├─ ObjectIndex: F17.9
│  ├─ Declared Scope: Local to Context
│  ├─ Formula: ShowPanel("SampleSetUp", 100, 100)
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 10 at: C4  Set Variable "Repeat"
│  ├─ ObjectIndex: F17.10
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "Repeat"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 11 at: D3  Set Variable "SampleType"
│  ├─ ObjectIndex: F17.11
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "SampleType"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 15 at: G3  Set Variable "SampleID"
│  ├─ ObjectIndex: F17.15
│  ├─ Declared Scope: Local to Context
│  ├─ Global Name: "SampleID"
│  ├─ ShowTitleBar: true
│  ├─ ShowTerminals: true
│  └─ ShowIconTitle: true
├─ 17 at: E2  Toggle Control "Quit" is added to panel
│  ├─ ObjectIndex: F17.17
│  ├─ Declared Scope: Local to Context
│  ├─ InitializeAtActivate: true
│  ├─ InitialValue: 0
│  ├─ EnableEditing: true
│  ├─ ShowTitleBar: false
│  ├─ ShowTerminals: false
│  ├─ ShowIconTitle: true
│  ├─ Format: <Custom>
```

```
│  └ Scaled: false
├ 18 at: E3  If/Then/Else "If/Then/Else"
│  ├ ObjectIndex: F17.18
│  ├ Declared Scope: Local to Context
│  ├ If/Else cases: a==1
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 21 at: I8  Stop "Stop"
│  ├ ObjectIndex: F17.21
│  ├ Declared Scope: Local to Context
│  ├ Exit code: 0
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: false
│  └ ShowIconTitle: true
├ 23 at: E7  Text Constant "Empty Syringe"
│  ├ ObjectIndex: F17.23
│  ├ Description: Valve 1 to Port 2
│  ├ Declared Scope: Local to Context
│  ├ DataShape: Scalar
│  ├ ArraySize: 10
│  ├ EnableEditing: true
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: false
│  └ ShowIconTitle: true
├ 36 at: F5  Formula "HidePanel("ErrorRecord")"
│  ├ ObjectIndex: F17.36
│  ├ Declared Scope: Local to Context
│  ├ Formula: HidePanel("ErrorRecord")
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 37 at: F5  Formula "ShowPanel("ErrorRecord")"
│  ├ ObjectIndex: F17.37
│  ├ Declared Scope: Local to Context
│  ├ Formula: ShowPanel("ErrorRecord")
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 38 at: F3  If/Then/Else "If/Then/Else"
│  ├ ObjectIndex: F17.38
│  ├ Declared Scope: Local to Context
│  ├ If/Else cases: 1==A
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 41 at: F2  Toggle Control "  Error Log" is added to panel
│  ├ ObjectIndex: F17.41
│  ├ Declared Scope: Local to Context
│  ├ InitializeAtActivate: true
│  ├ InitialValue: 0
│  ├ EnableEditing: true
│  ├ ShowTitleBar: false
│  ├ ShowTerminals: false
│  ├ ShowIconTitle: true
│  ├ Format: <Custom>
│  └ Scaled: false
├ 44 at: G2  Toggle Control "Acid Flush" is added to panel
│  ├ ObjectIndex: F17.44
│  ├ Declared Scope: Local to Context
│  ├ AutoExecute: true
│  ├ InitializeAtActivate: true
│  ├ InitialValue: 0
│  ├ EnableEditing: true
│  ├ ShowTitleBar: false
│  ├ ShowTerminals: false
│  ├ ShowIconTitle: true
│  ├ Format: <Custom>
│  └ Scaled: false
├ 45 at: G4  If/Then/Else "If/Then/Else"
│  ├ ObjectIndex: F17.45
│  ├ Declared Scope: Local to Context
│  ├ If/Else cases: a==1
│  ├ ShowTitleBar: true
│  └ ShowTerminals: true
```
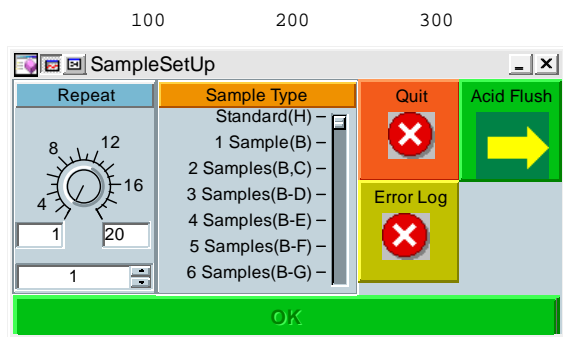
```
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 46 at: G5  Call "Call AcidFlush"
│ ├ ObjectIndex: F17.46
│ ├ Declared Scope: Local to Context
│ ├ Function name: "AcidFlush"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 48 at: H3  Break "Break"
│ ├ ObjectIndex: F17.48
│ ├ Declared Scope: Local to Context
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 49 at: E8  Direct I/O "Serial10 ( @ 10)"
│ ├ ObjectIndex: F17.49
│ ├ Declared Scope: Local to Context
│ ├ Transactions: WRITE TEXT a EOL
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 50 at: E9  Call "Call ErrorRecord"
│ ├ ObjectIndex: F17.50
│ ├ Declared Scope: Local to Context
│ ├ Function name: "ErrorRecord"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 51 at: F8  Call "Call Open_Dump"
│ ├ ObjectIndex: F17.51
│ ├ Declared Scope: Local to Context
│ ├ Function name: "Open_Dump"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 52 at: F8  Call "Call Full_Flow"
│ ├ ObjectIndex: F17.52
│ ├ Declared Scope: Local to Context
│ ├ Function name: "Full_Flow"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 53 at: G8  Delay "Delay"
│ ├ ObjectIndex: F17.53
│ ├ Declared Scope: Local to Context
│ ├ Delay: 10
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: false
│ └ ShowIconTitle: true
├ 54 at: G8  Call "Call Close_Dump"
│ ├ ObjectIndex: F17.54
│ ├ Declared Scope: Local to Context
│ ├ Function name: "Close_Dump"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 55 at: H8  Call "Call Stop_Flow"
│ ├ ObjectIndex: F17.55
│ ├ Declared Scope: Local to Context
│ ├ Function name: "Stop_Flow"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 57 at: D3  Set Variable "Set SampleCount"
│ ├ ObjectIndex: F17.57
│ ├ Declared Scope: Local to Context
│ ├ Global Name: "SampleCount"
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 60 at: D5  If/Then/Else "If/Then/Else"
│ ├ ObjectIndex: F17.60
│ ├ Declared Scope: Local to Context
│ └ If/Else cases: a==0
```

```
    │  ┌ If/Else Cases: a==0
    │  ├ ShowTitleBar: true
    │  ├ ShowTerminals: true
    │  └ ShowIconTitle: true
    ├ 61 at: D3  Get Variable "Get SampleCount"
    │  ├ ObjectIndex: F17.61
    │  ├ Declared Scope: Local to Context
    │  ├ Global Name: "SampleCount"
    │  ├ ShowTitleBar: true
    │  ├ ShowTerminals: true
    │  └ ShowIconTitle: true
    ├ 63 at: D7  Set Variable "Set SampleCount"
    │  ├ ObjectIndex: F17.63
    │  ├ Declared Scope: Local to Context
    │  ├ Global Name: "SampleCount"
    │  ├ ShowTitleBar: true
    │  ├ ShowTerminals: true
    │  └ ShowIconTitle: true
    ├ 64 at: D6  Constant "Int16"
    │  ├ ObjectIndex: F17.64
    │  ├ Declared Scope: Local to Context
    │  ├ InitialValue: 0
    │  ├ DataShape: Scalar
    │  ├ ArraySize: 10
    │  ├ EnableEditing: true
    │  ├ ShowTitleBar: true
    │  ├ ShowTerminals: false
    │  └ ShowIconTitle: true
    └ 66 at: H8  Delay "Delay"
       ├ ObjectIndex: F17.66
       ├ Declared Scope: Local to Context
       ├ Delay: 1
       ├ ShowTitleBar: true
       ├ ShowTerminals: false
       └ ShowIconTitle: true
```

SampleSetUp: Panel View
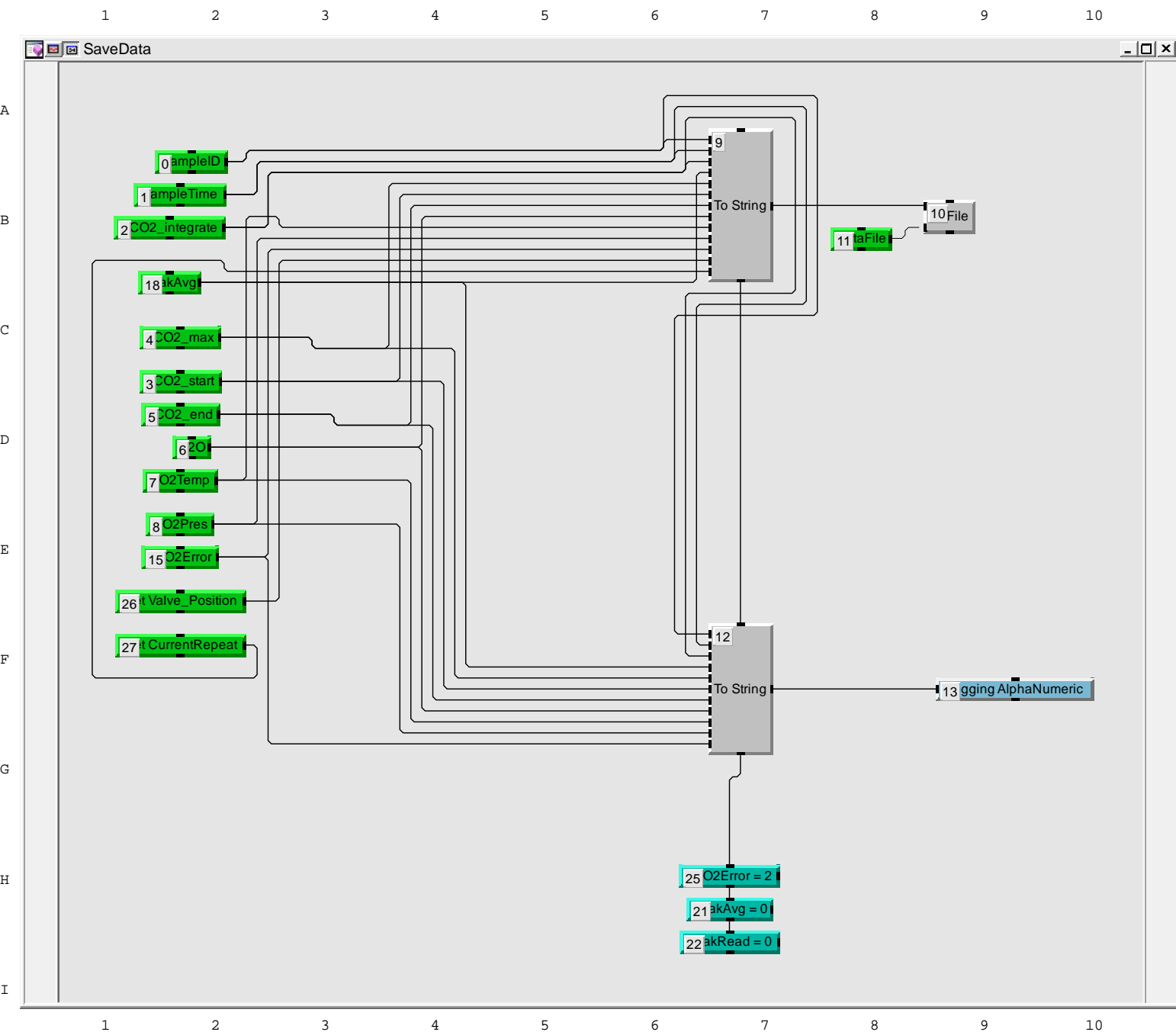


```
PanelView "SampleSetUp"  (w=381, h=177)
├─ 2:  Knob "Repeat"  (x=0, y=0) (w=100, h=150)
├─ 7:  OK "OK"  (x=0, y=150) (w=380, h=31)
├─ 1:  Selection Control "Sample Type"  (x=100, y=0) (w=140, h=150)
├─ 17:  Toggle Control "Quit"  (x=240, y=0) (w=71, h=71)
├─ 41:  Toggle Control "  Error Log"  (x=240, y=70) (w=70, h=71)
└─ 44:  Toggle Control "Acid Flush"  (x=310, y=0) (w=71, h=71)
```

SaveData (F16): Detail View, Total Objects: 21


```
UserFunction  "SaveData"
├─ 0 at: A2  Get Variable "SampleID"
│   ├─ ObjectIndex: F16.0
│   ├─ Declared Scope: Local to Context
│   ├─ Global Name: "SampleID"
│   ├─ ShowTitleBar: true
│   ├─ ShowTerminals: true
│   └─ ShowIconTitle: true
├─ 1 at: B2  Get Variable "SampleTime"
│   ├─ ObjectIndex: F16.1
│   ├─ Declared Scope: Local to Context
│   ├─ Global Name: "SampleTime"
│   ├─ ShowTitleBar: true
│   ├─ ShowTerminals: true
│   └─ ShowIconTitle: true
├─ 2 at: B1  Get Variable "pCO2_integrate"
│   ├─ ObjectIndex: F16.2
│   ├─ Declared Scope: Local to Context
│   ├─ Global Name: "pCO2_integrate"
│   ├─ ShowTitleBar: true
│   ├─ ShowTerminals: true
│   └─ ShowIconTitle: true
├─ 3 at: C2  Get Variable "pCO2_start"
```

```
   ├ ObjectIndex: F16.3
   ├ Declared Scope: Local to Context
   ├ Global Name: "pCO2_start"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 4 at: C2   Get Variable "pCO2_max"
   ├ ObjectIndex: F16.4
   ├ Declared Scope: Local to Context
   ├ Global Name: "pCO2_max"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 5 at: D2   Get Variable "pCO2_end"
   ├ ObjectIndex: F16.5
   ├ Declared Scope: Local to Context
   ├ Global Name: "pCO2_end"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 6 at: D2   Get Variable "H2O"
   ├ ObjectIndex: F16.6
   ├ Declared Scope: Local to Context
   ├ Global Name: "H2O"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 7 at: D2   Get Variable "CO2Temp"
   ├ ObjectIndex: F16.7
   ├ Declared Scope: Local to Context
   ├ Global Name: "CO2Temp"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 8 at: E2   Get Variable "CO2Pres"
   ├ ObjectIndex: F16.8
   ├ Declared Scope: Local to Context
   ├ Global Name: "CO2Pres"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
─ 9 at: B7   To String "To String"
   ├ ObjectIndex: F16.9
   ├ Declared Scope: Local to Context
   ├ Transactions: 27 lines.
   │  ├ WRITE TEXT a STR
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT B DATE:DMY TIME:HMS:H24
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT B
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT C REAL64 FIX:0
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT D REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT E REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT F REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT G REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT H REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT I REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT j REAL64 FIX:2
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT k INT16
   │  ├ WRITE TEXT "," STR
   │  ├ WRITE TEXT l INT16
   │  ├ WRITE TEXT "," STR
   │  └ WRITE TEXT m INT16 EOL
   ├ MultiFieldFormat: (...) Syntax
   ├ ArrayFormat: Block
```
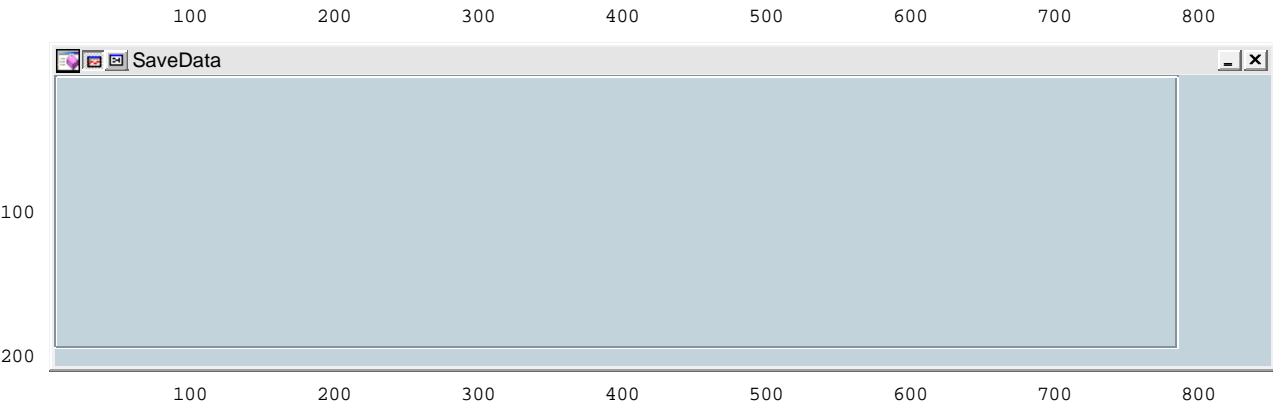
```
│  ├ ArraySeparator: " "
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 10 at: B9  To File "To File"
│  ├ ObjectIndex: F16.10
│  ├ Declared Scope: Local to Context
│  ├ Transactions: 2 lines.
│  │  ├ WRITE TEXT a EOL
│  │  └ EXECUTE CLOSE
│  ├ EolSequence: "\r\n"
│  ├ MultiFieldFormat: (...) Syntax
│  ├ ArrayFormat: Block
│  ├ ArraySeparator: "\r\n"
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 11 at: B8  Get Variable "DataFile"
│  ├ ObjectIndex: F16.11
│  ├ Declared Scope: Local to Context
│  ├ Global Name: "DataFile"
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 12 at: F7  To String "To String"
│  ├ ObjectIndex: F16.12
│  ├ Declared Scope: Local to Context
│  ├ Transactions: 21 lines.
│  │  ├ WRITE TEXT a STR FW:13 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT B DATE:DMY TIME:HMS:H24
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT C REAL64 FIX:0 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT D REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT E REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT F REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT G REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT H REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT I REAL64 FIX:2 FW:6 RJ
│  │  ├ WRITE TEXT "  " STR
│  │  ├ WRITE TEXT j REAL64 FIX:2
│  │  ├ WRITE TEXT "  " STR
│  │  └ WRITE TEXT k INT16 FW:6 RJ EOL
│  ├ MultiFieldFormat: (...) Syntax
│  ├ ArrayFormat: Block
│  ├ ArraySeparator: " "
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 13 at: F9  Logging AlphaNumeric "Logging AlphaNumeric" is added to panel
│  ├ ObjectIndex: F16.13
│  ├ Declared Scope: Local to Context
│  ├ ClearAtActivate: false
│  ├ Buffer Size: 256
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: false
│  └ ShowIconTitle: true
├ 15 at: E2  Get Variable "TCO2Error"
│  ├ ObjectIndex: F16.15
│  ├ Declared Scope: Local to Context
│  ├ Global Name: "TCO2Error"
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 18 at: B1  Get Variable "PeakAvg"
│  ├ ObjectIndex: F16.18
│  ├ Declared Scope: Local to Context
│  ├ Global Name: "PeakAvg"
```
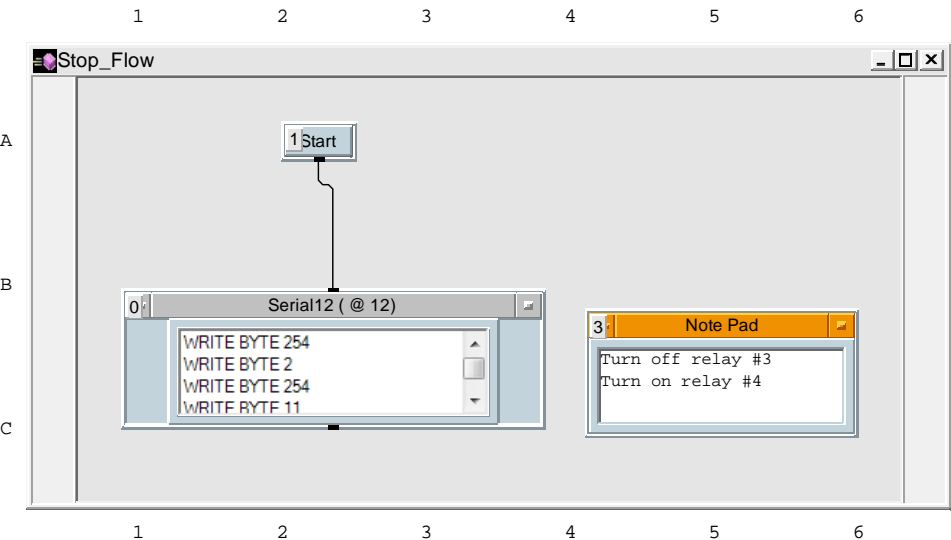
```
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 21 at: H7   Formula "PeakAvg = 0"
│  ├ ObjectIndex: F16.21
│  ├ Declared Scope: Local to Context
│  ├ Formula: PeakAvg = 0
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 22 at: H7   Formula "PeakRead = 0"
│  ├ ObjectIndex: F16.22
│  ├ Declared Scope: Local to Context
│  ├ Formula: PeakRead = 0
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 25 at: H7   Formula "TCO2Error = 2"
│  ├ ObjectIndex: F16.25
│  ├ Declared Scope: Local to Context
│  ├ Formula: TCO2Error = -1
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
├ 26 at: E2   Get Variable "Get Valve_Position"
│  ├ ObjectIndex: F16.26
│  ├ Declared Scope: Local to Context
│  ├ Global Name: "Valve_Position"
│  ├ ShowTitleBar: true
│  ├ ShowTerminals: true
│  └ ShowIconTitle: true
└ 27 at: F2   Get Variable "Get CurrentRepeat"
   ├ ObjectIndex: F16.27
   ├ Declared Scope: Local to Context
   ├ Global Name: "CurrentRepeat"
   ├ ShowTitleBar: true
   ├ ShowTerminals: true
   └ ShowIconTitle: true
```

SaveData: Panel View

```
        100     200     300     400     500     600     700     800
```



```
PanelView "SaveData"  (w=844, h=202)
└ 13:  Logging AlphaNumeric "Logging AlphaNumeric"  (x=0, y=0) (w=780, h=190)
```

Stop_Flow (F23): Detail View, Total Objects: 3


```
UserFunction  "Stop_Flow"
├ 0 at: B2  Direct I/O "Serial12 ( @ 12)"
│ ├ ObjectIndex: F23.0
│ ├ Declared Scope: Local to Context
│ ├ Transactions: 4 lines.
│ │ ├ WRITE BYTE 254
│ │ ├ WRITE BYTE 2
│ │ ├ WRITE BYTE 254
│ │ └ WRITE BYTE 11
│ ├ ShowTitleBar: true
│ ├ ShowTerminals: true
│ └ ShowIconTitle: true
├ 1 at: A2  Start "Start"
│ ├ ObjectIndex: F23.1
│ ├ Declared Scope: Local to Context
│ ├ ShowTitleBar: false
│ ├ ShowTerminals: false
│ └ ShowIconTitle: true
└ 3 at: C5  Note Pad "Note Pad"
  ├ ObjectIndex: F23.3
  ├ Declared Scope: Local to Context
  ├ Note Contents: 2 lines.
  │ ├ Turn off relay #3
  │ └ Turn on relay #4
  ├ ShowTitleBar: true
  ├ ShowTerminals: false
  └ ShowIconTitle: true
```

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