Module1 - 1

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Option Explicit

'declare variant variable
Public varReExecute As Variant

'declare integer variable
Public intWroteRecord As Integer
Public intStopLog As Integer
Public intSavedRecordCount As Integer

Public Sub FillSpreadSheet()

    'declare & initialize worksheet object variable
    Dim shtDataLog As Worksheet
    Set shtDataLog = Application.Workbooks(1).Worksheets(1)

    'declare & initialize integer variable
    'Dim intStopLog As Integer
    'Dim intRecordCount As Integer
    'intStopLog = 0
    'intRecordCount = 0

    'declare & initialize Variant variable
    'Dim varReExecute As Variant

    'NOTE: Microsoft Excel 2003 Maximum Rows per Sheet = 65536
    '      Process cycle and data logging runs continuously for 18 hours = 1080 minutes = 64800 seconds
    '      Data sampling and logging rate = one single-row record every second.
    '      If Process cycle has not STARTed, PLC writes zero (0) into DM[75], which maps into Excel Cell AA10.
    '      If Process cycle STARTed and is running, every 1 second, PLC will increment DM[75] value from 1-to-32766.
    '      When Process cycle ENDs or terminates earlier by ALARM, PLC writes 32767 into DM[75].

    'check if Max records saved, or alarm ended cycle prematurely, or no new record written for > 0.5 hour
    If intSavedRecordCount < 65500 And intWroteRecord < 32767 And intStopLog < 1800 Then
        'read Cell AA10
        intWroteRecord = shtDataLog.Range("AA10")
        'check if ExcelLink just wrote a new Row record, Cell AA10 value > 0,
        If intWroteRecord > 0 Then
            'save single-row record written by ExcelLink on Row#10 by insert a new row before Row #10
            shtDataLog.Rows(10).Insert
            'increment saved record count
            intSavedRecordCount = intSavedRecordCount + 1
            'clear StopLog count
            intStopLog = 0
        'no new Row record available
        Else
            'increment StopLog count
            intStopLog = intStopLog + 1
        End If

        'Program this macro procedure to automatically re-execute in 1 seconds
        varReExecute = DateTime.Now + DateTime.TimeValue("00:00:01")
        Application.OnTime varReExecute, "FillSpreadSheet"
    Else
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    'stop data logging: Maximum number of records saved, Process cycle ended/terminated, ExcelLink Stopped/Closed
    End If

    shtDataLog.Range("A1") = intSavedRecordCount
    shtDataLog.Range("B1") = intStopLog

'stop and exit this macro, allow for ExcelLink to populate spreadsheet.
End Sub
```