# *Application Note*

# Transferring Data between Microsoft Excel And ASIC-100/200

Microsoft Excel's DDE features allow you to transfer data to and from ASIC-100/200 global variables. Data for summary and analysis can be transferred to and from ASIC-100/200 using Excel. You can also transfer data from Excel to ASIC-100/200 for controlling ASIC-100/200 program execution or to provide features such as a low-level recipe management system.

## Transferring Data from ASIC-100/200 to Excel:

To transfer the value of a global variable from ASIC-100/200 to a cell in an Excel Spreadsheet, enter a formula like the following into the cell that is to receive the value:

```
=ProgMgr|'_main _main'!<VariableName>
                OR
=ProgMgr|'_main _main'!'ArrayName[4]'
```

The string '_main _main' is the DDE *topic* and allows you to fetch ASIC-100/200 global variables. **Make sure that you type one and only one space between the two "_main" as shown in the formula above.** Replace the VariableName with the name of the global variable that you wish to transfer. The VariableName must use the same case and spelling as used in the ASIC-100/200 application. Array elements are accessed using the second format to address the appropriate element in any array, but because of the square brackets ([ ] ), the element name must be enclosed within single quotes.

This formula will establish a Hot DDE link to ASIC-100/200 that will update the value in the Excel spreadsheet whenever the variable in the ASIC-100/200 is changed.

## Transferring Data from Excel to ASIC-100:

Transferring a value from Excel to an ASIC-100/200 global variable requires a DDE transaction routine coded in an Excel macro similar the following:

```
Sub Transfer ()
 Dim x
 x = Application.DDEInitiate ("ProgMgr", "_main _main")
 Set rangeToPoke = Sheets ("Sheet1").Cells(7, 11 )
 Application.DDEPoke x, "VariableName", rangeToPoke
 Application.DDETerminate x
 End Sub
```

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This routine, when executed, will transfer the value of the cell in row 7, column 11 (K7) to the ASIC-100/200 global variable called VariableName. Make sure that you type one space between _main and _main as mentioned above. Replace "Sheet1" with the name of your worksheet that contains the value to be transferred.

**Transferring values from Excel to ASIC-100 upon request:**

Transferring values from Excel to ASIC-100/200 upon request from ASIC-100/200 requires a DDE transaction routine coded in an Excel macro similar the following:

```
Dim TimeSet As Double
Sub RunMeFirst ()
   TimeSet = Now + TimeValue ("00:00:05")
   Application.OnTime TimeSet, "Transfer"
End Sub
Sub Transfer ()
   Dim x, y
   Dim z As Variant
   x = DDEInitiate ("ProgMgr", "_main _main")
   z = DDERequest (x, "Trans1")
   y = Val (z(1))
   If y = 1 Then
      Set rangeToPoke = Sheets ("Sheet1").Cells(2, 3)
      DDEPoke x, "Data1", rangeToPoke
      Set rangeToPoke = Sheets ("Sheet1").Cells(3, 3)
      DDEPoke x, "Data2", rangeToPoke
      Set rangeToPoke = Sheets ("Sheet1").Cells(4, 3)
      DDEPoke x, "Data3", rangeToPoke
      Set rangeToPoke = Sheets("Sheet1").Cells(1, 3)
      DDEPoke x, "Trans1", rangeToPoke
   End If
   DDETerminate x
   RunMeFirst : End Sub
```

When executed, this macro will check an ASIC-100/200 global variable called Trans1 every 5 seconds. If Trans1 is set to 1, it will then transfer the value of the cell in row 2, column 3 (C2) to the ASIC-100/200 global variable called Data1, likewise C3 to Data2, and C4 to Data3. It will then transfer C1, which was preset to 0, to Trans1 resetting the transfer request. Make sure that you type one space between _main and _main as mentioned above. Replace "Sheet1" with the

name of your worksheet that contains the values to be transferred. You can change update time from 5 seconds to some other number by changing TimeValue in the RunMeFirst function.

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