

# VBA Workbooks, Worksheets and Ranges

## ACCESS A WORKBOOK

The current workbook	ThisWorkbook
The active workbook	ActiveWorkbook
Any open workbook	Workbooks("example.xlsx")
Open a workbook	Workbooks.Open "C:\docs\book.xlsx"
Using a variable	<code>Dim wk As Workbook</code> <code>Set wk = Workbooks("example.xlsx")</code>

## ACCESS A WORKSHEET

In current workbook	ThisWorkbook.Worksheets("name")
In current workbook	Use the code name e.g. Sheet1
In a given workbook	wk.Worksheets("name")
The active worksheet	ActiveSheet
Worksheet variable	<code>Dim sh As Worksheet</code> <code>Set sh = wk.Worksheets("name")</code>

## USING RANGE

Access Range	<worksheet>.Range
Read value from cell	Total = Range("A1").Value
Write value to cell	Range("A1").Value = 5
Assign one cell to another	Range("A1").Value = Range("B1").Value
Assign multiple cells	Range("A1:C4").Value = Range("F1:H4").Value
Read from range to array	<code>Dim arr As Variant</code> <code>arr = Range("A1:B3").Value</code>
Write from array to range	Range("A1:B3").Value = arr
Assign and transpose	Range("E1:H1").Value = WorksheetFunction.Transpose

## USING VARIABLES WITH RANGES

Row is variable	Range("A" & i) <b>Or</b> Cells(i,1)
Column is variable	Cells(1,i)
Multiple cells	Range("A1:A" & i) <b>Or</b> Range(Cells(1,1),Cells(i,1))

## OFFSET PROPERTIES

Offset	Moves range by rows and columns
Get cell to right	Range("B2").Offset(0,1) ' C2
Get cell to left	Range("B2").Offset(0,-1) ' A2
Get cell above	Range("B2").Offset(-1,0) ' B1
Get cell below	Range("B2").Offset(1,0) ' B3
Multiple cells	Range("A1:B2").Offset(3,3) ' D4:E5

## USING CURRENT REGION

CurrentRegion	Gets the entire range of data
Cells A1:D5 have data. Get entire range	Range("A1").CurrentRegion <b>Or</b> Range("B2").CurrentRegion <b>Or</b> Range("D5").CurrentRegion <b>etc.</b>

## ROWS AND COLUMNS

Last row	Cells(Rows.Count, 1).End(xlUp).row
Last column	Cells(1,Columns.Count).End(xlToLeft).Column
Cell count	Range("A1").Count
Row count	Range("A1:D5").Rows.Count
Column count	Range("A1:D5").Columns.Count
Get a row	<worksheet>.Rows(3)
Get a column	<worksheet>.Columns(2)

## READING THROUGH RANGES

Every cell in range	<code>Dim rg As Range</code> <code>For Each rg In Range("A1:A10")</code> <code>Debug.Print rg</code> <code>Next rg</code>
Read by row	<code>Dim row As Range</code> <code>For Each row In Range("A1:A5").Rows</code> <code>' Print cell in third column of row</code> <code>Debug.Print row.Cells(1,3)</code> <code>Next row</code>

## READING THROUGH OTHER ITEMS

All Open workbooks	<code>Dim wk As Workbook</code> <code>For Each wk In Workbooks</code> <code>Debug.Print wk.Name</code> <code>Next wk</code>
All worksheets in a workbook	<code>Set wk = Workbooks("Test.xlsx")</code> <code>Dim sh As Worksheet</code> <code>For Each sh In wk.Worksheets</code> <code>Debug.Print sh.Name</code> <code>Next sh</code>

## USEFUL PROPERTIES FOR TESTING

Worksheet of a range	Range("A1").Parent
Workbook of a worksheet	Worksheets(1).Parent
Workbook of a range	Range("A1").Parent.Parent
Workbook name	Workbooks(1).Name
Workbook path	Workbooks(1).Path
Workbook path + name	Workbooks(1).FullName
Current user	Application.UserName

## COPYING RANGES

Everything	Range("A1:A5").Copy Range("C1:C5")
Paste Special	Range("A1:A5").Copy Range("C1:C5").PasteSpecial xlPasteFormats Range("C1:C5").PasteSpecial xlPasteValues