

“Do While” and “For Next” Statements

Manzione

“Do... Loop” Statements

- “Do... Loop” statements begin with a “Do” keyword and end with a “Loop”
- 2 types of “Do” loops
 - “While” and “Until”
- Primary use:
 - To automate a program to read a block of statements that are either ‘true until false’ or ‘false until true’

“Do While... Loop”

- A "Do While" loop statement runs while a logical expression is true.
- This means that as long as your expression stays true, your program will keep on running.
- Once the expression is false, your program stops running.

Example of “Do While... Loop”

Do While Expression

‘ Inserted code runs as long as the
expression is TRUE

Loop

Do While MsgBox (“Print the map?”, vbYesNo) = _
vbYes

‘ Code here that prints map

MsgBox “Printing Map”

Loop

“Do Until... Loop”

- A "Do Until" loop statement runs until a logical statement is true.
- This means that as long as your expression is false, the program will run until it is true.
- Once the expression is true, the program stops running.

Example of “Do Until... Loop”

Do Until Expression

‘ Inserted code runs as long as the
expression is FALSE

Loop

Do Until EOF (1)

‘ Read lines from the file

Loop

“For... Next” Statements

- “For... Next” statements begin with a “For” keyword and end with a “Next”
- 2 types of “For” Statements
 - “For... Next” and “For Each... Next”
- Primary use:
 - To automate a program to read a block of statements until the statement runs a given number of times as determined by the start, end, and step values.

“For... Next” Statements

- You determine the range of values you wish to loop ("StartValue" to "EndValue") and allow the script to run until values go from start to finish.
- Once the script runs its first variable, it is looped by the "Next" statement.
- This statement tells the program to proceed to the next variable until it reaches its EndValue.

Example of “For... Next”

```
For variable = StartValue To EndValue  
    ' Block of code inserted here  
Next
```

```
For x = 1 to 10  
    ' Code to print file  
    MsgBox "Printing File " & x  
Next
```

“For Each... Next” Statements

- “For Each... Next” Statements repeats a group of statements for each element in an array or collection
- With this command you tell the program to repeat a function command for each given element in a group listing.

Example of “For Each... Next”

For Each element In group

‘ Insert statement here

Next

‘ Display the list of field names in a message box

For Each fieldName In theList

MsgBox “The field name is “ & fieldName

Next fieldName

Text Pages

- Programming ArcObjects with VBA

- “Do... Loop” Statements: Pages 23-24

- “For... Next” Statements: Pages 24-25

- Getting to Know ArcObjects

- “Do... Loop” Statements: Pages 111-113

- “For... Next” Statements: Pages 104-105