

## IsDate and IsTime functions (VB Work-A-Like)

The following are two functions to validate dates and times.

Inspired by the VB functions of the same name.

Often when a user is asked to enter either, there is quite a bit of code to make sure that what they entered makes sense. These functions check both the format and values and return a boolean (actually an integer) of 0 if the string is not a Date/Time. Non zero indicates the string is valid.

Earlier versions of these functions used Regular Expressions to match the “look & feel” of time and date strings. This made things very easy but RegExps are notoriously compute-heavy. Previous versions were quite slow and had the huge code overhead of the RegExp module. If you were only using RegExps for IsDate/IsTime was difficult to justify the extra 2K of program.

The versions presented below, dispense with the RegExps. Consequently they are a bit longer than the originals (not including the RegExp module) but total code footprint is much-reduced and they are now very quick - about seven times faster.

Check the history of this article if you are curious about the versions using RegExps.

### Notes IsDate:

- Only supports UK/AUS date formats of dd/mm/yyyy
- The delimiter may be either / or - e.g. dd-mm-yyyy or dd/mm/yyyy is fine.

### Notes IsTime:

- Times must be formatted as hh:mm:ss

### Syntax:

=IsTime(TimeStr\$) =IsDate(DateStr\$)

### Examples:

If Not IsDate(dt\$) Then Exit Sub Checkbox=IsTime(A\$)

### Dependencies:

### IsLeapYear Function

```
Function IsTime(a$) As Integer
    Local d$
    Local Integer x,z
```

```
IsTime=0
If Len(a$)=8 Then
    d$=Mid$(a$,3,1)
    If d$=":" Then
        d$=Mid$(a$,6,1)
        If d$=":" Then
            'here a$=?:?:??
            For x=1 To 8
                If x=3 or x=6 Then
                    Else
                        z=Asc(Mid$(a$,x,1))
                        If z<&h30 Or z>&h39 Then Exit Function
                    EndIf
                Next
            If Val(Left$(a$,2))<24 Then
                If Val(Mid$(a$,4,2))<60 Then
                    If Val(Right$(a$,2))<60 Then
                        IsTime=1
                    EndIf
                EndIf
            EndIf
        EndIf
    EndIf
End Function
```

```
Function IsDate(a$) As Integer
    Local d$
    Local Integer x,z
    IsDate=0
    If Len(a$)=10 Then
        d$=Mid$(a$,3,1)
        If d$="-" Or d$="/" Then
            d$=Mid$(a$,6,1)
            If d$="-" Or d$="/" Then
                'here a$=??/??/????
                For x=1 To 10
                    If x=3 Or x=6 Then
                        Else
                            z=Asc(Mid$(a$,x,1))
                            If z<&h30 Or z>&h39 Then Exit Function
                        EndIf
                    Next
                x=Val(Left$(a$,2)):z=Val(Mid$(a$,4,2))
                If x<1 Then Exit Function
                Select Case z
                    Case 1,3,5,7,8,10,12
                        If x>31 Then Exit Function
                    Case 4,6,9,11
                        If x>30 Then Exit Function
```

```
Function
    Case 2
        If x>28+IsLeapYear(Val(Right$(a$,4))) Then Exit
    Case Else
        Exit Function
    End Select
    IsDate=1
EndIf
EndIf
EndIf
End Function
```

There are several optimizations possible on the above code that have been omitted in the interests of legibility.

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