Read & Write INI files using Visual basic .Net

While developing windows forms application. Usualy the configuration settings are stored in the config Files, INI files, Windows Registry, etc..., Here this article explains about the settings in INI File.

In .Net mostly the settings are stored in XML based files such as web.config, Machine.config and Application.config. Storing the settings in INI Files and registry are not advisable. Since saving and retrieving from Config files are easy and much more convenient. However we may need to use ini files because of some reasons like converting from legacy applications, etc..

In these situations where we need to read & write settings in INI files, the following code snippet wil be useful.

Windows API Declarations required for Saving and reading INI Files

```
Private Declare Ansi Function GetPrivateProfileString _
  Lib "kernel32.dll" Alias "GetPrivateProfileStringA" _
        (ByVal lpApplicationName As String, _
        ByVal lpKeyName As String, ByVal lpDefault As String, _
        ByVal lpReturnedString As String, _
        ByVal nSize As Integer, ByVal lpFileName As String) _
        As Integer
Private Declare Ansi Function WritePrivateProfileString _
       Lib "kernel32.dll" Alias "WritePrivateProfileStringA" _
       (ByVal lpApplicationName As String, _
       ByVal lpKeyName As String, ByVal lpString As String, _
       ByVal lpFileName As String) As Integer
```

Function to read INI FIle

This function can be used to read a config file with multiple sections. We need to just pass the section and key. the value will be returned if key exists. If not then it will return NOT_FOUND. When working with Windows API functions such as GetPrivateProfileString we need to give the length of the string and we need to pad the entire string with emptu spaces. then this function will return the string with values stuffed inside. After the function has done its job. The passed value string will contain the value. The next step is to strip out the extra spaces which we padded.

```
'*******************************************************
'*  Purpose :   To Get Configuration Settings from INI file
'*
'*  Inputs  :   strKey(String)          Key for the settings
'*              strSection(String)      Section name
'*
'*  Returns :   Settings
'*
'*******************************************************
Public Function GetIniSetting(ByVal strKey As String, _
Optional ByVal strSection As String = "settings") As String
        Dim strValue As String
        Dim intPos As Integer
        On Error GoTo ErrTrap
        strValue = Space(1024)
GetPrivateProfileString(strSection, strKey, "NOT_FOUND",  strValue, 1024, "[ini file
path]")
     Do While InStrRev(strValue, " ") = Len(strValue)
            strValue = Mid(strValue, 1, Len(strValue) - 1)
Loop
' to remove a special chr in the last place
```

```
strValue = Mid(strValue, 1, Len(strValue) - 1)
GetIniSetting = strValue
ErrTrap:
      If Err.Number <> 0 Then Err.Raise(Err.Number, , "Error form
Fucntions.GetIniSettings " & Err.Description)
End Function
```

Write INI Settings Function

Writing INI file is as easy as reading the **INI** files. We have to call the **WritePrivateProfileString** to write the values to the INI files. Compared to Read INI settings writing is much easier than reading. since just calling the API function will do the job.

```
'***************************************************************
'*  Purpose :   To Set Configuration Settings into  INI file
'*
'*  Inputs  :   strKey(String)          Key for the settings
'*              strValue(String)        Value for the key specified
'*  Returns :   NA
'*    '***************************************************************
Public Sub SetIniSettings(ByVal strKey As String, ByVal strValue As String,
Optional ByValstrSection As String = "settings")
Dim intPos As Integer
On Error GoTo ErrTrap
WritePrivateProfileString(strSection, strKey, strValue, "[ini file path]")
ErrTrap:
If Err.Number <> 0 Then Err.Raise(Err.Number, , "Error form Functions.SetIniSettings " &
Err.Description)\
End Sub
```