Keyboard.SendKeys Method (String, Boolean)

.NET Framework 4.6 and 4.5

Sends one or more keystrokes to the active window, as if typed on the keyboard.

Namespace: Microsoft.VisualBasic.Devices
Assembly: Microsoft.VisualBasic (in Microsoft.VisualBasic.dll)

Syntax

VB

```
'Declaration
Public Sub SendKeys ( _
        keys As String, _
        wait As Boolean _
)
```

Parameters

keys

Type: System.String
A **String** that defines the keys to send.

wait

Type: System.Boolean
Optional. A **Boolean** that specifies whether or not to wait for keystrokes to get processed before the application continues. **True** by default.

Exceptions

Exception	Condition
SecurityException	A partial-trust situation exists in which the user lacks necessary permissions.

Remarks

The **My.Computer.Keyboard.SendKeys** method provides functionality similar to the Send and SendWait methods.

The *wait* argument is useful if the other application must finish before your application can continue.

> **Note**
>
> Because there is no managed method to activate another application, you can either use this class within the current application, manually select the window to send the keys to, or use Windows API methods, such as **FindWindow** and **SetForegroundWindow**, to force focus on other applications. For more information, see Walkthrough: Calling Windows APIs (Visual Basic).

The *keys* argument can specify any single key or any key combined with ALT, CTRL, or SHIFT (or any combination of those keys). Each key is represented by one or more characters, such as `a` for the character "a", or `{ENTER}` for the ENTER key.

To combine a key with SHIFT, precede the key code with `+` (plus sign). To combine a key with CTRL, precede the key code with `^` (caret). To combine a key with ALT, precede the key code with `%` (percent sign). To specify repeating keys, use the form `{`*key number*`}`. You must put a space between *key* and *number*. For example, `{LEFT 42}` means "press the LEFT ARROW key 42 times"; `{h 10}` means "press 'h' 10 times."

The following table lists the codes that can be used to specify characters that are not displayed when you press the corresponding key (such as ENTER or TAB).

Key	Code

BACKSPACE	{BACKSPACE} or {BS}
BREAK	{BREAK}
CAPS LOCK	{CAPSLOCK}
CLEAR	{CLEAR}
DELETE	{DELETE} or {DEL}
DOWN ARROW	{DOWN}
END	{END}
ENTER (numeric keypad)	{ENTER}
ENTER	~
ESC	{ESCAPE} or {ESC}
HELP	{HELP}
HOME	{HOME}
INS	{INSERT}
LEFT ARROW	{LEFT}
NUM LOCK	{NUMLOCK}
PAGE DOWN	{PGDN}
PAGE UP	{PGUP}

RETURN	{RETURN}
RIGHT ARROW	{RIGHT}
SCROLL LOCK	{SCROLLLOCK}
TAB	{TAB}
UP ARROW	{UP}
F1 through F15	{F1} through {F15}

Availability by Project Type

Project type	Available
Windows Application	**Yes**
Class Library	**Yes**
Console Application	**Yes**
Windows Control Library	**Yes**
Web Control Library	No
Windows Service	**Yes**
Web Site	No

Examples

This example uses the **My.Computer.Keyboard.SendKeys** method to send keystrokes to an external application, the Calculator application, started by the **Shell** function.

VB

```
Dim ProcID As Integer
' Start the Calculator application, and store the process id.
ProcID = Shell("CALC.EXE", AppWinStyle.NormalFocus)
' Activate the Calculator application.
AppActivate(ProcID)
' Send the keystrokes to the Calculator application.
My.Computer.Keyboard.SendKeys("22", True)
My.Computer.Keyboard.SendKeys("*", True)
My.Computer.Keyboard.SendKeys("44", True)
My.Computer.Keyboard.SendKeys("=", True)
' The result is 22 * 44 = 968.
```

A ArgumentException exception is raised if an application with the requested process identifier cannot be found.

The call to the **Shell** function requires full trust (SecurityException class).

Version Information

.NET Framework
Supported in: 4.6, 4.5, 4, 3.5, 3.0, 2.0
.NET Framework Client Profile
Supported in: 4, 3.5 SP1

.NET Framework Security

- FileIOPermission
  Controls the ability to access files and folders. Associated enumeration: Unrestricted.

- UIPermission
  Controls the permissions related to user interfaces and the clipboard. Associated enumeration: AllWindows.

See Also

Reference

Keyboard Class
SendKeys Overload
Microsoft.VisualBasic.Devices Namespace
Computer
Send
SendWait

Other Resources

Objects (Visual Basic)
Accessing the Keyboard (Visual Basic)
Walkthrough: Calling Windows APIs (Visual Basic)