

# Real Cool Hotkeys

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The use of Key Accelerators from Visual Toolchest or SQLWindows is only applicable to your active form. But the Win32 API easily facilitates the definition of a hotkey, which is valid for the whole desktop. **Figure 1** shows the starting form I use to set the hotkey.

Using the combo box and the three checkboxes, I can define a hotkey. The activation is effected with the Set button and the removal is carried out with the Destroy button. After the activation of the hotkey, the form is brought to the foreground, no matter what application had focus at the time of activation—even DOS boxes.

SQLWindows  
32

## The details

Message PAM\_HotKey controls the display elements of the form window frmWinHotKey, shown in **Figure 1**. The mode Alt, Ctrl, or Shift, is defined by the following three constants, which can be combined:

```
Number: MOD_ALT = 1
Number: MOD_CONTROL = 2
Number: MOD_SHIFT = 4
```

I fill the combo box for the keycode with a loop to start. Plus, I convert the ASCII values from 65 (=A) to 91 (=Z) into CHAR before inserting them in the combo box.

For the definition of a hotkey, I need USER32.DLL and KERNEL32.DLL and the message WM\_HOTKEY (0x0312), as shown in **Figure 2**.

### Listing 1. Class Function fCreateHotKey.

```
! First, Get free number
Set inAtom = GlobalAddAtomA('Centura')
!
If inAtom = 0
  Call SalMessageBox('GlobalAddAtomA','ERROR',MB_Ok)
  Return FALSE
!
! Second, register Hotkey
If RegisterHotKey(hWndForm, inAtom,
  p_nKey, p_nKeyCode)
  Return TRUE
Else
  Call SalMessageBox('RegisterHotKey','ERROR',MB_Ok)
  Return FALSE
```

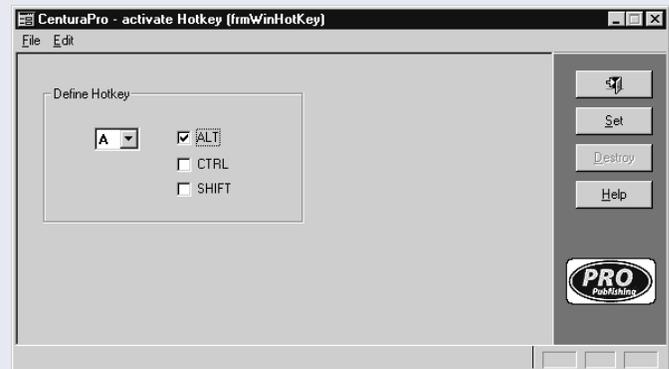
Here's how to include the functionality of Sidekick in Centura Team Developer—and offer any information with a single keystroke.

If the return value is TRUE, the new hotkey is activated and can be tested.

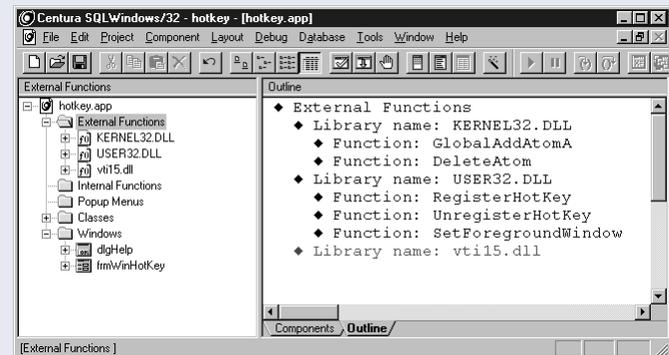
**Listing 2** shows how the hotkey is assigned. First, I need a unique value for the “atom.” I may use any string

to identify it in the Atom table—in my example I use “Centura.” If the return value is valid, I register my hotkey with the API function RegisterHotKey. The parameters are the relevant window handle, inAtom, a value for Alt | Ctrl | Shift, and a keycode in the range “A” through “Z”.

I use the Destroy button to remove the relevant hotkey again. In this case I need the functions UnregisterHotKey and DeleteAtom.



**Figure 1.** The starting form. “Define Hotkey” adjusts the hotkey.



**Figure 2.** The necessary API functions.

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## Listing 2. Unregister the hotkey.

```
! First, Unregister HotKey
If NOT UnregisterHotKey(hWndForm,inAtom)
    Call SalMessageBox('UnregisterHotKey','ERROR',MB_Ok)
    Return FALSE
!
! Second, Delete Atom
Set inAtom = DeleteAtom(inAtom)
!
If inAtom = 0
    Return TRUE
Else
    Call SalMessageBox('DeleteAtom','ERROR',MB_Ok)
    Return FALSE
```

Now the hotkey is removed again and the unique number in the atom is released.

## Action!

Which messages are set off? Very simple: as specified by the window handle parameter in Listing 2, the registered form window receives the message WM\_HOTKEY.

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## Listing 3. WM\_HOTKEY arrives at your form.

```
Message Actions
On WM_HOTKEY
    Call VisWinShow(hWndForm,SHOW_Normal)
    Call SalBringWindowToTop(hWndForm)
    Call SetForegroundWindow(hWndForm)
    Call SalPostMsg(picPropub,PAM_HotKey,TRUE,0)
    Call SalSetFocus(pbHelp)
```

To activate and display my form window, I need the following code elements:

- VisWinShow( ) activates the form within the taskbar.
- SalBringWindowToTop( ) puts a window to the top of all overlapping SQLWindows forms.
- SetForegroundWindow( ) puts a window to the top of all overlapping desktop forms.
- SalSetFocus( ) is necessary if there are no enabled child window.

Centura Team Developer, with a little help from the Windows API, manages this requirement without any problems. **CP**

*[Download HotKey.zip from this issue's Table of Contents at \[www.ProPublishing.com\]\(http://www.ProPublishing.com\) or find it on this month's Companion Disk.](#)*

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