

# How Do I detect Text and Cursor position changes in Word using VSTO

Asked 16 years, 3 months ago    Modified 13 years, 3 months ago

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1



I want to write a word addin that does some computations and updates some ui whenever the user types something or moves the current insertion point. From looking at the MSDN docs, I don't see any obvious way such as an TextTyped event on the document or application objects.



Does anyone know if this is possible without polling the document?



ms-word

ms-office

vsto

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edited Apr 2, 2009 at 15:06



warren

33.4k ● 23 ● 89 ● 128

asked Sep 11, 2008 at 3:05



Ben Childs

4,570 ● 1 ● 22 ● 9

## 2 Answers

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3



Actually there is a way to run some code when a word has been typed, you can use SmartTags, and override the Recognize method, this method will be called whenever a word is type, which means whenever the user typed some text and hit the space, tab, or enter keys.

one problem with this however is that if you change the text using "Range.Text" it will detect it as a word change and call the function so it can cause infinite loops.

Here is some code I used to achieve this:

```
public class AutoBrandSmartTag : SmartTag
{
    Microsoft.Office.Interop.Word.Document cDoc;

    Microsoft.Office.Tools.Word.Action act = new
Microsoft.Office.Tools.Word.Action("Test Action");

    public
AutoBrandSmartTag(AutoBrandEngine.AutoBrandEngine
_engine, Microsoft.Office.Interop.Word.Document
_doc)
        :
base("AutoBrandTool.com/SmartTag#AutoBrandSmartTag",
"AutoBrand SmartTag")
    {
        this.cDoc = _doc;

        this.Actions = new
Microsoft.Office.Tools.Word.Action[] { act };
    }

    protected override void Recognize(string text,
```

```
Microsoft.Office.Interop.SmartTag.ISmartTagRecognize  
site,
```

```
Microsoft.Office.Interop.SmartTag.ISmartTagTokenList  
tokenList)
```

```
{
```

```
    if (tokenList.Count < 1)  
        return;
```

```
    int start = 0;
```

```
    int length = 0;
```

```
    int index = tokenList.Count > 1 ?
```

```
tokenList.Count - 1 : 1;
```

```
    ISmartTagToken token =
```

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edited Sep 9, 2011 at 15:51

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John Sibly

23k ● 7 ● 64 ● 82

answered Jun 23, 2009 at 17:23



Sebastian Bender

101 ● 5

- 
- 1 Very interesting. For posterity, I see that smart tags are deprecated for Word/Excel 2010. – [Carl G](#) Mar 11, 2011 at 10:48
- 



1



As you've probably discovered, [Word has events](#), but they're for really coarse actions like a document open or a switch to another document. I'm guessing MS did this intentionally to prevent a crappy macro from slowing down typing.



In short, there's no great way to do what you want. [A Word MVP confirms that in this thread.](#)



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answered Sep 11, 2008 at 5:47

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Wayne Kao

8,285 ● 5 ● 31 ● 25



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It turns out that this is possible but only by using low level keyboard hooks, and an out of process low level mouse hook. – [Ben Childs](#) Dec 18, 2008 at 4:21

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@BenChilds Unfortunately Wayne's link is broken and its not on the WayBackkTimeMachine, do you have any links on how to do this apart from [the obvious one](#)?  
– [Jeremy Thompson](#) Dec 5, 2016 at 3:19

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