

This refactoring applies to:

- C#
- Visual Basic

**What:** Lets you remove or change the order of a method's parameters.

**When:** You want to move or remove a method parameter that is currently being used in a variety of locations.

**Why:** You could manually remove and re-order the parameters, and then find all calls to that method and change them one-by-one, but that could lead to errors. This refactoring tool will perform the task automatically.

## How-to

1. Highlight or place the text cursor inside the name of the method to modify, or one of its usages:

- C#:

```
static void Main(string[] args)
{
    ChangeName("John", "Doe");
}

1 reference
private static void ChangeName(string firstName, string lastName)
{
}
```

- VB:

```
Sub Main()  
    ChangeName("John", "Doe")  
End Sub  
  
Sub ChangeName(firstName As String, lastName As String)  
End Sub
```

2. Next, do one of the following:

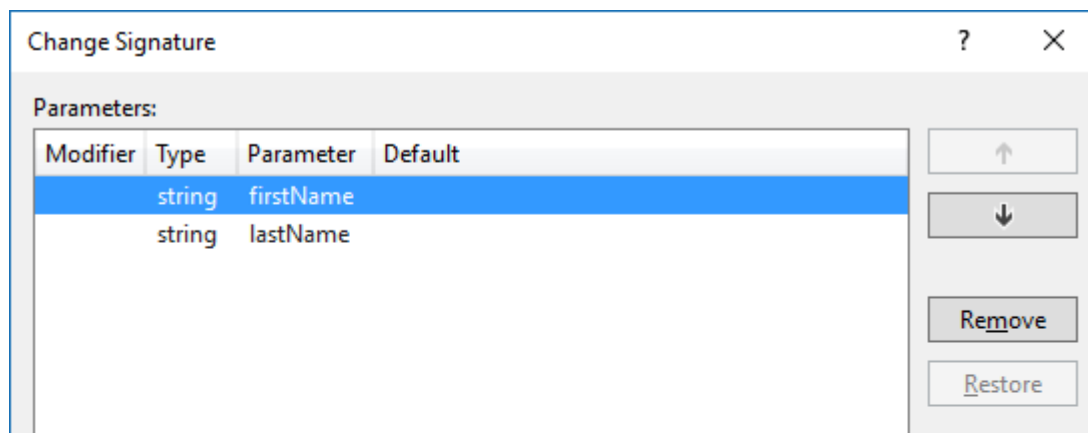
- **Keyboard**

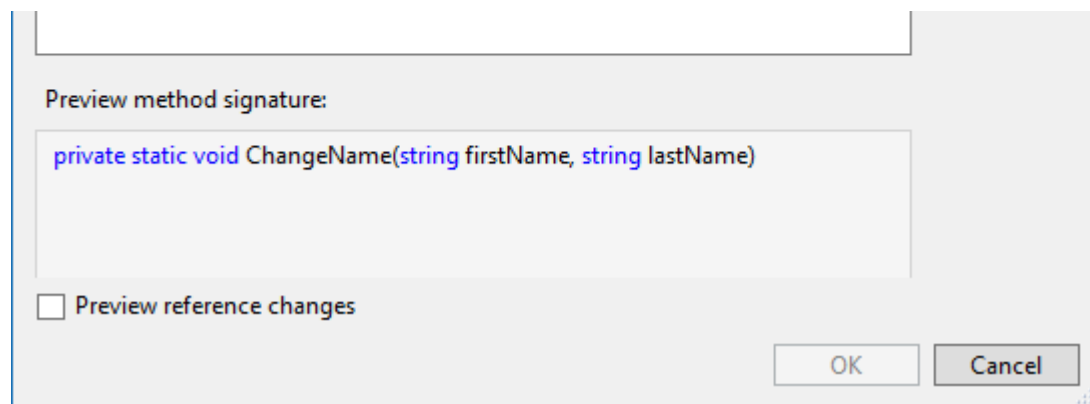
- Press **Ctrl+R**, then **Ctrl+V**. (Note that your keyboard shortcut may be different based on which profile you've selected.)
- Press **Ctrl+.** to trigger the **Quick Actions and Refactorings** menu and select **Change Signature** from the Preview window popup.

- **Mouse**

- Select **Edit > Refactor > Remove Parameters**.
- Select **Edit > Refactor > Reorder Parameters**.
- Right-click the code, select the **Quick Actions and Refactorings** menu and select **Change Signature** from the Preview window popup.

3. In the **Change Signature** dialog that pops up, you can use the buttons on the right side to change the method signature:





Button	Description
Up/Down	Move the selected parameter up and down the list
Remove	Remove the selected parameter from the list
Restore	Restore the selected, crossed-out parameter to the list

### 💡 Tip

Use the **Preview reference changes** checkbox to see what the result will be before committing to it.

4. When you are finished, press the **OK** button to make the changes.

- C#:

```
static void Main(string[] args)
{
    ChangeName("Doe", "John");
}

1 reference
private static void ChangeName(string lastName, string firstName)
{
    ,
}
```



- Visual Basic:

```
Sub Main()  
    ChangeName("Doe", "John")  
End Sub  
  
Sub ChangeName(lastName As String, firstName As String)  
End Sub
```

## See also

- [Refactoring](#)
- [Preview Changes](#)