You've Been Haacked

...and you like it

- about
- archives
- contact
- contributors

You've been Haacked and you like it

Twitter GitHub RSS

C# Razor Syntax Quick Reference

January 6, 2011 asp.net mvc, asp.net, code 102 comments edit

I gave a presentation to another team at Microsoft yesterday on ASP.NET MVC and the Razor view engine and someone asked if there was a reference for the Razor syntax.

It turns out, there is a pretty good guide about Razor available, but it's focused on covering the basics of web programming using Razor and inline pages and not just the Razor syntax.

So I thought it might be handy to write up a a really concise quick reference about the Razor syntax.

Syntax/Sample	Razor	Web Forms Equivalent (or remarks)
| Code Block | ```
@{
  int x = 123;
  string y = "because.";
}
``` | ```
<%
  int x = 123;
  string y = "because.";
%>
``` |
| Expression (Html Encoded) | `<span>@model.Message</span>` | `<span><%: model.Message %></span>` |
| Expression (Unencoded) | ```
<span>
@Html.Raw(model.Message)
</span>
``` | `<span><%= model.Message %></span>` |
| Combining Text and markup | ```
@foreach(var item in items) {
  <span>@item.Prop</span>
``` | ```
<% foreach(var item in items) { %>
  <span><%: item.Prop %></span>
``` |

```
                    }                                                    <% } %>
```

Mixing code and Plain text	`@if (foo) {`
	`   <text>Plain Text</text>`
	`}`
		`<% if (foo) { %>`
		`   Plain Text`
		`<% } %>`

Using block	`@using (Html.BeginForm()) {`
	`   <input type="text" value="input here">`
	`}`
		`<% using (Html.BeginForm()) { %>`
		`   <input type="text" value="input here">`
		`<% } %>`

Mixing code and plain text (alternate)	`@if (foo) {`
	`   @:Plain Text is @bar`
	`}`
		Same as above

Email Addresses	`Hi philha@example.com`	Razor recognizes basic email format and is smart enough not to treat the @ as a code delimiter
Explicit Expression	`<span>ISBN@(isbnNumber)</span>`	In this case, we need to be explicit about the expression by using parentheses.
Escaping the @ sign	`<span>In Razor, you use the @@foo to display the value of foo</span>`	@@ renders a single @ in the response.

Server side Comment	`@*`
	`This is a server side multiline comment`
	`*@`
		`<%--`
		`This is a server side multiline comment`
		`--%>`

Calling generic method	`@(MyClass.MyMethod<AType>())`	Use parentheses to be explicit about what the expression is.

Creating a Razor Delegate	`@{`
	`   Func<dynamic, object> b =`
	`     @<strong>@item</strong>;`
	`}`
	`@b("Bold this")`
		Generates a `Func<T, HelperResult>` that you can call from within Razor. See this blog post for more details.

Mixing expressions and text	`Hello @title. @name.`	`Hello <%: title %>. <%: name %>.`

NEW IN RAZOR v2.0/ASP.NET MVC 4

Conditional attributes	`<div class="@className"></div>`	When `className = null`
		
		`<div></div>`
		
		When `className = ""`
		
		`<div class=""></div>`
		
		When `className = "my-class"`
		
		`<div class="my-class"></div>`

Conditional attributes with other literal values	`<div class="@className foo bar">` `</div>`	When `className = null` `<div class="foo bar"></div>` *Notice the leading space in front of* `foo` *is removed.* When `className = "my-class"`

```html
<div class="my-class foo bar">
</div>
```

Conditional data-* attributes.
 	
data- attributes are always rendered*.
	`<div data-x="@xpos"></div>`	When xpos = null or ""
		
		`<div data-x=""></div>`
		
		When xpos = "42"
		
		`<div data-x="42"></div>`

Boolean attributes	`<input type="checkbox"`
	`  checked="@isChecked" />`
		When isChecked = true
		
		`<input type="checkbox"`
		`  checked="checked" />`
		
		When isChecked = false
		
		`<input type="checkbox" />`

URL Resolution with tilde	`<script src="~/myscript.js">`
	`</script>`
		When the app is at /
		
		`<script src="/myscript.js">`
		`</script>`
		
		When running in a virtual application named `MyApp`
		
		`<script src="/MyApp/myscript.js">`
		`</script>`

Notice in the "mixing expressions and text" example that Razor is smart enough to know that the ending period is a literal text punctuation and not meant to indicate that it's trying to call a method or property of the expression.

Let me know if there are other examples you think should be placed in this guide. I hope you find this helpful.

UPDATE 12/30/2012: I've added a few new examples to the table of new additions to Razor v2/ASP.NET MVC 4 syntax. Razor got a lot better in that release!

Also, if you want to know more, consider buying the Programming ASP.NET MVC 4 book. Full disclosure, I'm one of the authors, but the other three authors are way better.

Tweet　　Share　19

« Top 10 Blogging Clichés of 2010
Grouping Routes Part 2 »

Comments

102 Comments　　**You've Been Haacked**　　　　　　　　　　　　1　Login ▾

♥ Recommend　11　　⤤ Share　　　　　　　　　　　　　　　　Sort by Oldest ▾

Join the discussion…

Shiju Varghese • 6 years ago

Very useful quick reference.

9 ∧ | ∨ • Reply • Share ›

steven6 → Shiju Varghese • 2 years ago

Agreed, useful reference! Two more syntaxes I like to use are using blocks and closures.

using blocks: http://www.codeducky.org/razor...

```
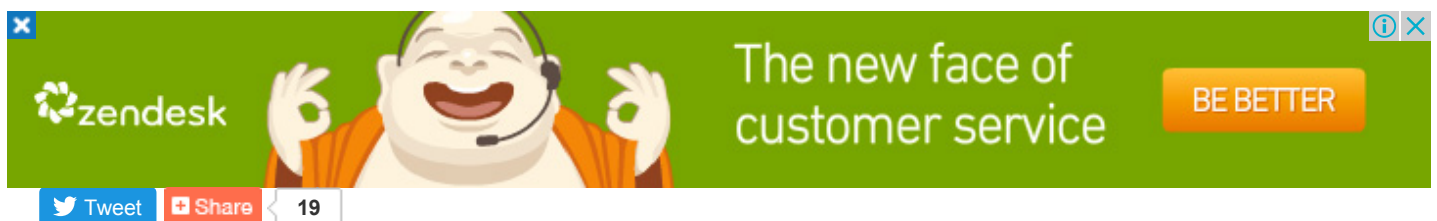@using (Html.BeginForm())
{
<input type="text" value="input here">
}
```

closures: http://www.codeducky.org/razor...

```
@{
IHtmlString barSpan = Html.Content(@@ViewBag.Bar);
}
Bar 1: @barSpan
Bar 2: @barSpan

public static IHtmlString Content(
this HtmlHelper self,
Func<object, helperresult=""> razorContent)
{
return razorContent(null);
}
```

1 ∧ | ∨ • Reply • Share ›

haacked Mod → steven6 • 2 years ago

Thanks for the examples! I already include the second one. It's called a Razor Delegate.

∧ | ∨ • Reply • Share ›

Eric Berens • 6 years ago

With ASP.NET 4 a new code expression syntax (<%: %>) was introduced that renders output like <%= %> blocks do – but automatically HTML encodes it before doing so. (weblogs.asp.net/...) That being said, are all expressions HTML encoded and if so is there a syntax that outputs the expression without encoding it beforehand?

∧ | ∨ • Reply • Share ›

Damon Stephenson • 6 years ago

Eric: I believe @Html.Raw("text") does that now.

5 ∧ | ∨ • Reply • Share ›

Yngve B. Nilsen • 6 years ago

You should also include the @* *@ compiled comment syntax.. That for me is an excellent piece of Razor-magic :)

∧ | ∨ • Reply • Share ›

Dmitry Podrezov · 6 years ago

To Eric Berens

@{ var text = "don't unescape *me*"; }

@Html.Raw(text)

Comments:

Razor

```
@* comments are marked like this *@
```

ASP.NET

```
<%-- comments are marked like this --%>
```

Another useful example:

```
@foreach (var item in collection) {
@* something *@
}
```

see more

⌃ | ⌄ · Reply · Share ›

Ahammad Fekri ➜ Dmitry Podrezov · 4 years ago

Nice Post ... Helped Me ....

Ahammad Fekri :)

⌃ | ⌄ · Reply · Share ›

MVS ➜ Ahammad Fekri · 3 years ago

The comments inside statement block its only allowed with:

/* comment */, that is for multi lines comment, and

// comment, that should be used for single line comment.

The @* comment *@ can be used only outside statement block

1 ⌃ | ⌄ · Reply · Share ›

Tomas Jansson · 6 years ago

Really nice quick reference guide!

⌃ | ⌄ · Reply · Share ›

Jonas Eriksson · 6 years ago

I find the @functions and @helper very useful

```
@functions
{
string SayWithFunction(string message)
{
return message;
}
}
```

```
@helper SayWithHelper(string message)

{

Text: @message


}
```
@SayWithFunction("Hello, world!")

@SayWithHelper("Hello, world!")

2 ⌃ | ⌄ • Reply • Share ›

Nova Software • 6 years ago

Thanks, but, when will Microsoft will publish the official documents?

1 ⌃ | ⌄ • Reply • Share ›

Mike • 6 years ago

"Notice in the last example that Razor is smart enough to know that the ending period is a literal text punctuation and not meant to indicate that it's trying to call a method or property of the expression."

Then teach it.

1 ⌃ | ⌄ • Reply • Share ›

Nomail ↱ Mike • 4 years ago

if is were equal to isn't, this comment made sense

3 ⌃ | ⌄ • Reply • Share ›

Joe • 6 years ago

"Thanks, but, when will Microsoft will publish the official documents?"

+1

9 ⌃ | ⌄ • Reply • Share ›

terryterry's-chicken • 6 years ago

I'm really impressed that you can use AddModelError on normal razor pages now. Well done Haack!

One old nuGet of a question. ViewBag? I've always thought you gave ViewData the wrong name. Call it ControlData or FormData, because it does indeed store information used by input controls. Then call ViewBag, ViewData.

1 ⌃ | ⌄ • Reply • Share ›

David Carrillo (@dacanetdev) • 6 years ago

Very useful Quick Reference. Planning start new MVC project with Razor as View Engine

1 ⌃ | ⌄ • Reply • Share ›

haacked • 6 years ago

Thanks for the feedback! I've incorporated many of your suggestions. @Mike, I don't understand your comment at all. Teach it what?

1 ⌃ | ⌄ • Reply • Share ›

James Still • 6 years ago

awesome thx. the syntax is pretty straightforward I've discovered. Can you post a little something

on extension helper methods? Things like Html.RadioButtonListFor? I'm still not clear on that.

∧ | ∨ • Reply • Share ›

Erx • 6 years ago

Please include vb razor as well... It's not cool ur ignoring 30% of developers

1 ∧ | ∨ • Reply • Share ›

ctrlShiftBryan • 6 years ago

I don't seem to have @Html.Raw(). I do have MVC 3 RC2, I think. The listed version is (3.0.11029.0) is that RC2?

∧ | ∨ • Reply • Share ›

Eric • 6 years ago

Thanks Phil, that's a hot cubicle pinup for folks new to Razor!
Razor is awesome indeed.

∧ | ∨ • Reply • Share ›

Martin • 6 years ago

You have had a guide about Conditional Compilation Statements earlier, and they work fine with Razor, the color change of the condition which is not true is not working though.
But unlike WebForms, it doesnt crash the intellisense in the editor when using them.

∧ | ∨ • Reply • Share ›

Bas Jansen • 6 years ago

It seems that MVC 3 is RTM because of a checking in the Orchard Project (orchard.codeplex.com/.../403731d7ad50). Bit strange too find it out like this. But nevertheless congratulations!

∧ | ∨ • Reply • Share ›

Rodrigo Caballero • 6 years ago

Hi Phil,
I'm using the Telerik extensions for ASP.NET MVC and there's the following code for the webforms engine:
<% Html.Telerik().PanelBar()
.Name("PanelBar")
.Items(items =>
{
items.Add()
.Content(() =>
{
%>
This is content inside a method
<%
});
})
%>
I can't make it run with razor sintax (not even with parenthesis characters around the spans).
Note that Webforms sintax is "closing" the code definition for a while, pastes a little html markup and then keeps working with the rest of the method's code
How about this kind of webforms well-working functionality on razor?

How about this kind of webforms well-working functionality on razor?
best regards
Rodrigo
PD. more of this case on:
demos.telerik.com/aspnet-mvc/panelbar/templates

∧ | ∨ • Reply • Share ›

Andrey Taritsyn • 6 years ago
Hi, Rodrigo!
Try the following code:
@(Html.Telerik().PanelBar()
.Name("PanelBar")
.Items(items => items
.Add().Content(@This is content inside a method)
)
)
In Telerik Blogs is a good article on this subject - blogs.telerik.com/....

∧ | ∨ • Reply • Share ›

Developer Seer • 6 years ago
Phil I'm eager to ask this to someone.
What is the performance loose for this awesomeness?
I mean is this analyzed during runtime?
or is it compiled in any form?
Thanks!

∧ | ∨ • Reply • Share ›

arootbeer • 6 years ago
What is the correct way to make generic method calls in razor? I don't seem to be able to google it
appropriately :)
I want to be able to do

```
<td>@MyStringMethod<MyClass>(params)</td>
```

∧ | ∨ • Reply • Share ›

haacked • 6 years ago
Make it an explicit expression.
```
@(MyStringMethod<MyClass>(params))
```

∧ | ∨ • Reply • Share ›

arootbeer • 6 years ago
Ah, okay. Might I suggest updating your table with that? The example explicit expression doesn't
really seem to address the point of explicit expressions AFAICT.
Thanks for the tip, and a useful post.

∧ | ∨ • Reply • Share ›

haacked • 6 years ago
@arootbeer done!

∧ | ∨ • Reply • Share ›

michael herndon • 6 years ago

So when is this post going to be put into first Razor Syntax quick cheat sheet (pdf / exportable format version) ?

∧ | ∨ • Reply • Share ›

Stuart Clement • 5 years ago

How can I use the <asp:calendar> control in a webmatrix cshtml page? Is this possible?

∧ | ∨ • Reply • Share ›

wtq • 5 years ago

I don't know what the meaning of <text></text>in the mvc3

∧ | ∨ • Reply • Share ›

Gareth Elms • 5 years ago

I should have read this last night before twanting (Twitter ranting) about Razor, I'd regard having to use @: as a gotcha. I started using Razor last night, and I've heard a lot about how Razor means you don't need to think about the code/markup separation, but it's not strictly true and I hit this gotcha immediately

```
@if( Request.IsAuthenticated){
Hello @Page.User.Identity.Name
}else{
@Html.ActionLink( "Log On", "LogOn", "Account")
}
```

4 ∧ | ∨ • Reply • Share ›

Gareth Elms • 5 years ago

@wtg <text> is a fake html tag that helps Razor know to flip out of server code parsing and into markup parsing. The text tag is actually rendered but it is invalid html/xhtml. So it's not ideal. Use @: instead

∧ | ∨ • Reply • Share ›

haacked • 5 years ago

Well yeah, there's always going to be those cases where you do have to think about it. After all, there's no way for Razor to know in that case that you meant for that to be literal text unless you tell it.
But in most cases (at least in my experience), I start such blocks with a tag, such as a SPAN. In that case, it really does flow.

∧ | ∨ • Reply • Share ›

sandeep • 5 years ago

hi,
i am working on mvc3 project using Razor view engine.
i have to apply dynamically classes on div.
my syntax is given below:

```
@{
View.Title = "About Us";
}
```

```
<h2>About</h2>
@using(Html.BeginForm("About","HomeController")){
int section = 0;
if (section == 0)
{
<div class="student">
}
else
{
```

see more

1 ∧ | ∨ • Reply • Share ›

Aaron ➜ sandeep • 4 years ago

Hi Sandeep, I am having this same issue. Did you manage to figure out a resolution? Thanks

∧ | ∨ • Reply • Share ›

Meriem • 5 years ago

Hi, please i want the syntaxe in razor of the ajax toolkit calendar "<asp:calendar ...
Please help.. Thank you!

∧ | ∨ • Reply • Share ›

Ethan • 5 years ago

Awesome, cooked and ready! thanks

∧ | ∨ • Reply • Share ›

Darshan • 5 years ago

Phill u saved my time. thank you for quick guide.

∧ | ∨ • Reply • Share ›

Arvin Boggs • 5 years ago

Please change the title to "C# Razor Syntax Quick Reference".

∧ | ∨ • Reply • Share ›

Ehsan • 5 years ago

Very useful
Thanks

∧ | ∨ • Reply • Share ›

Sharmin • 5 years ago

Nice small article.

∧ | ∨ • Reply • Share ›

Deany Web Geek • 5 years ago

Excellent, very useful :)

∧ | ∨ • Reply • Share ›

estetik • 5 years ago

good article

good article.

thanks

∧ | ∨ • Reply • Share ›

Joe • 5 years ago

Great post! This will come in handy. Thanks!

∧ | ∨ • Reply • Share ›

David Willington • 4 years ago

I've hit a problem with the following code

```
<ul>
@foreach (var venue in Model.venues) {
<li id='vc_@Html.Raw(venue.code)'>@Html.Raw(venue.name)</li>
}
</ul>
```

The output is

```
<ul>
<li id='vc_@Html.Raw(venue.code)'>Venue 1</li>
<li id='vc_@Html.Raw(venue.code)'>Venue 2</li>
<li id='vc_@Html.Raw(venue.code)'>Venue 3</li>
</ul>
```

I can't see how to have the @Html.Raw(venue.code) parsed. The best I've come up with so far is to ~~try and escape the @Html.Raw(venue.code), ie \@Html.Raw(venue.code) which means the code is~~

see more

∧ | ∨ • Reply • Share ›

Alan G • 4 years ago

This syntax should work:
<li id='vc_@(Html.Raw(venue.code))'>@Html.Raw(venue.name)

1 ∧ | ∨ • Reply • Share ›

Load more comments

✉ **Subscribe**   Ⓓ **Add Disqus to your site Add Disqus Add**   🔒 **Privacy**   **DISQUS**