



# HTML Advanced

December, 2018

# About me

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# Agenda

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- ❖ New features HTML5
- ❖ Semantics elements
- ❖ data-\* attributes
- ❖ New types for <INPUT>
- ❖ Audio & Video
- ❖ Inline SVG and MathML



**HTML5**

# **New Semantic Elements**

# New semantic elements

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## New element

- section
- article
- aside
- main
- header
- footer
- nav
- dialog
- figure

## Deprecated

- acronym
- applet
- basefont
- big
- center
- dir
- font
- frame
- frameset
- isindex
- noframes
- strike
- tt

# New semantic elements

```
<!DOCTYPE html>
<html>
  <head></head>
  <body>
    <header>...</header>
    <nav>...</nav>
    <article>
      <section>...</section>
    </article>
    <aside>...</aside>
    <figure>...</figure>
    <footer>...</footer>
  </body>
</html>
```



**HTML5**

**data-\***  
**attributes**



## data-\* attributes

```
<div  
  id="msglist"  
  data-user="bob"  
  data-list-size="5"  
  data-maxage="180"  
>  
</div>
```

```
var msglist = document.getElementById("msglist");  
var show = msglist.getAttribute("data-list-size");  
msglist.setAttribute("data-list-size", show+3);
```

# data-\* attributes

```
var msglist = document.getElementById("msglist");  
var show = msglist.dataset.listSize;  
msglist.dataset.listSize = show+3;
```



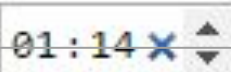



attribute name	dataset API name
data-user	user
data-maxage	maxage
data-list-size	listSize

**HTML5**

**New  
types**

**<INPUT>**

# New types <input>

date	
month	
week	
time	
number	
range	
color	
email	
url	
tel	

# New types <input>

**Email:**

! Адрес электронной почты должен содержать символ "@". В адресе "atata" отсутствует символ "@".

**Url:**

! Введите URL.

**Date:**

Июль 2016

Пн	Вт	Ср	Чт	Пт	Сб	Вс
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

```
<input type="range" min="1" max="10">
```

```
<input type="date" min="2010-08-14" max="2011-08-14" value="2010-08-14"/>
```

```
<input type="number" step="1" min="-5" max="10" value="0" />
```

[https://www.w3schools.com/tags/att\\_input\\_type.asp](https://www.w3schools.com/tags/att_input_type.asp)

# New types <input>

type="text"



Android Device

type="number"



Android Device

type="email"



iPhone Device

type="tel"



iPhone Device

**HTML5**

# **New attributes**

# New attributes

## Placeholder

```
<input type="text" name="search"
placeholder="Placeholder..." />
```

## Autofocus

```
<input type="text" name="search" autofocus />
```

Поиск по сайту

## Required

```
<input type="text" name="search" required />
```

⚠ Заполните это поле.

## Pattern

```
<input
type="text"
pattern="2-[0-9]{3}-[0-9]{3}"
/>
```

Введите телефон в формате 2-xxx-xxx, где вместо x должна быть цифра:

⚠ Please match the requested format.



**HTML5**

**<VIDEO>**

# <video>

```
<video src="foo.mp4" width="300" height="200" controls>  
  Your browser does not support the <video> element.  
</video>
```

```
<!DOCTYPE HTML>  
<html>  
  <body>  
    <video width="300" height="200" controls  
      autoplay>  
      <source src="/html5/foo.ogg"  
        type="video/ogg" />  
      <source src="/html5/foo.mp4"  
        type="video/mp4" />  
    </video>  
  </body>  
</html>
```



[https://www.w3schools.com/html/tryit.asp?filename=tryhtml5\\_video](https://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video)

# **<video>**

---

- **autoplay**
- **autobuffer**
- **height**
- **loop**
- **preload**
- **poster**
- **src**
- **width**

**HTML5**

**<AUDIO>**

# <audio>

```
<audio src="foo.wav" controls autoplay>
```

Your browser does not support the <audio> element.

```
</audio>
```

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<body>
```

```
<audio controls autoplay>
```

```
<source src="/html5/audio.ogg" type="audio/ogg" />
```

```
<source src="/html5/audio.wav" type="audio/wav" />
```

```
</audio>
```

```
</body>
```

```
</html>
```



[https://www.w3schools.com/html/tryit.asp?filename=tryhtml5\\_audio\\_all](https://www.w3schools.com/html/tryit.asp?filename=tryhtml5_audio_all)

# **<audio>**

---

- **autoplay**
- **autobuffer**
- **controls**
- **loop**
- **preload**
- **src**

**HTML5**

# Media events

# Media events

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- abort
- canplay
- ended
- error
- loadeddata
- loadstart
- pause
- play
- progress
- ratechange
- seeked
- seeking
- suspend
- volumechange
- waiting

[https://www.w3schools.com/tags/tryit.asp?filename=tryhtml5\\_av\\_event\\_loadeddata](https://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_av_event_loadeddata)



# Media events

```
<!DOCTYPE HTML>
<html>
  <head>
    <script type="text/javascript" async>
      function PlayVideo() {
        var v = document.getElementsByTagName("video")[0]; v.play();
      }
    </script>
  </head>
  <body>
    <form>
      <video width="300" height="200" src="/html5/foo.mp4"></video>
      <input type="button" onclick="PlayVideo();" value="Play" />
    </form>
  </body>
</html>
```

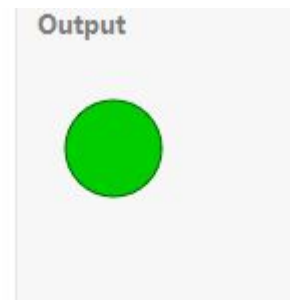
**HTML5**

# **Inline SVG and MathML**

# Inline SVG and MathML

HTML5 support for scalable vector graphics ([SVG](#)) content and [MathML](#) for mathematical formulas

```
<div>
<svg>
  <circle cx="40" cy="40" r="24" style="stroke:#006600; fill:#00cc00"/>
</svg>
</div>
```



```
<p>
  <math>
    <mi>&pi;</mi>
    <mo>&InvisibleTimes;</mo>
    <msup>
      <mi>r</mi>
      <mn>2</mn>
    </msup>
  </math>.
</p>
```

## Example of MathML em

The area of a circle is  $\pi r^2$ .

# Links

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- [W3 Schools / HTML5](#)
- [Tutorials Point / HTML5 Tutorial](#)
- [28 HTML5 Features, Tips, and Techniques you Must Know](#)
- [How to Use The HTML5 Sectioning Elements](#)
- [webref.ru](#)
- [MDN HTML Guide](#)

**Any questions?**