

# Fundamentals of HTML5

## Forms API

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# Outline

- Introduction
- What's New in HTML5 Forms?
  - New tags & types
  - **Demo:** New tags
  - **Demo:** Browser support
- How is validation supported?
  - Validation mechanics
  - **Demo:** Using CSS3 pseudo classes
  - Review built-in validation rules
  - **Demo:** Showing fine-grained validation messages
  - Custom validation rules
  - **Demo:** Implement custom validation rules

# New Input Types

color

datalist

date

datetime

datetime-local

email

month

number

range

search

tel

time

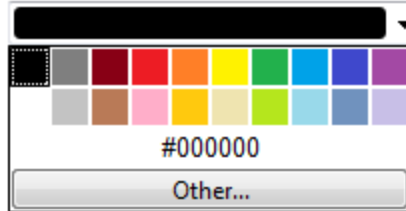
url

week

# Color



Background Color



# Datalist



T-Shirt Color

Black
Blue
Red
Green

# Date



Arrival Date

January

2011

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
52	27	28	29	30	31	1	2
1	3	4	5	6	7	8	9
2	10	11	12	13	14	15	16
3	17	18	19	20	21	22	23
4	24	25	26	27	28	29	30
5	31	1	2	3	4	5	6

Today

None

# Date/Time



Arrival Date/Time

2011-01-12 ▼ 12:11 UTC

January 2011

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
52	27	28	29	30	31	1	2
1	3	4	5	6	7	8	9
2	10	11	12	13	14	15	16
3	17	18	19	20	21	22	23
4	24	25	26	27	28	29	30
5	31	1	2	3	4	5	6

Today None

# Date/Time Local



Arrival Date/Time

2011-04-21 13:07

April 2011

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
13	28	29	30	31	1	2	3
14	4	5	6	7	8	9	10
15	11	12	13	14	15	16	17
16	18	19	20	21	22	23	24
17	25	26	27	28	29	30	1
18	2	3	4	5	6	7	8

Today None



# Email, URL & Telephone



Name:

Craig

E-mail:

craig@craigshoemaker.net

URL:

http://craigshoemaker.net

Telephone

555-555-5555

# Month



Birth Month

1965-04

April		1965				
Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	31	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	1	2
3	4	5	6	7	8	9
Today		None				

# Week



Vacation Week

2011-W26

	June				2011		
Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
22	30	31	1	2	3	4	5
23	6	7	8	9	10	11	12
24	13	14	15	16	17	18	19
25	20	21	22	23	24	25	26
26	27	28	29	30	1	2	3
27	4	5	6	7	8	9	10

Today None

# Range



Development Experience Range:



# Numeric



Number of Years in Development:

# Time



Arrival Time

09:30



# Search



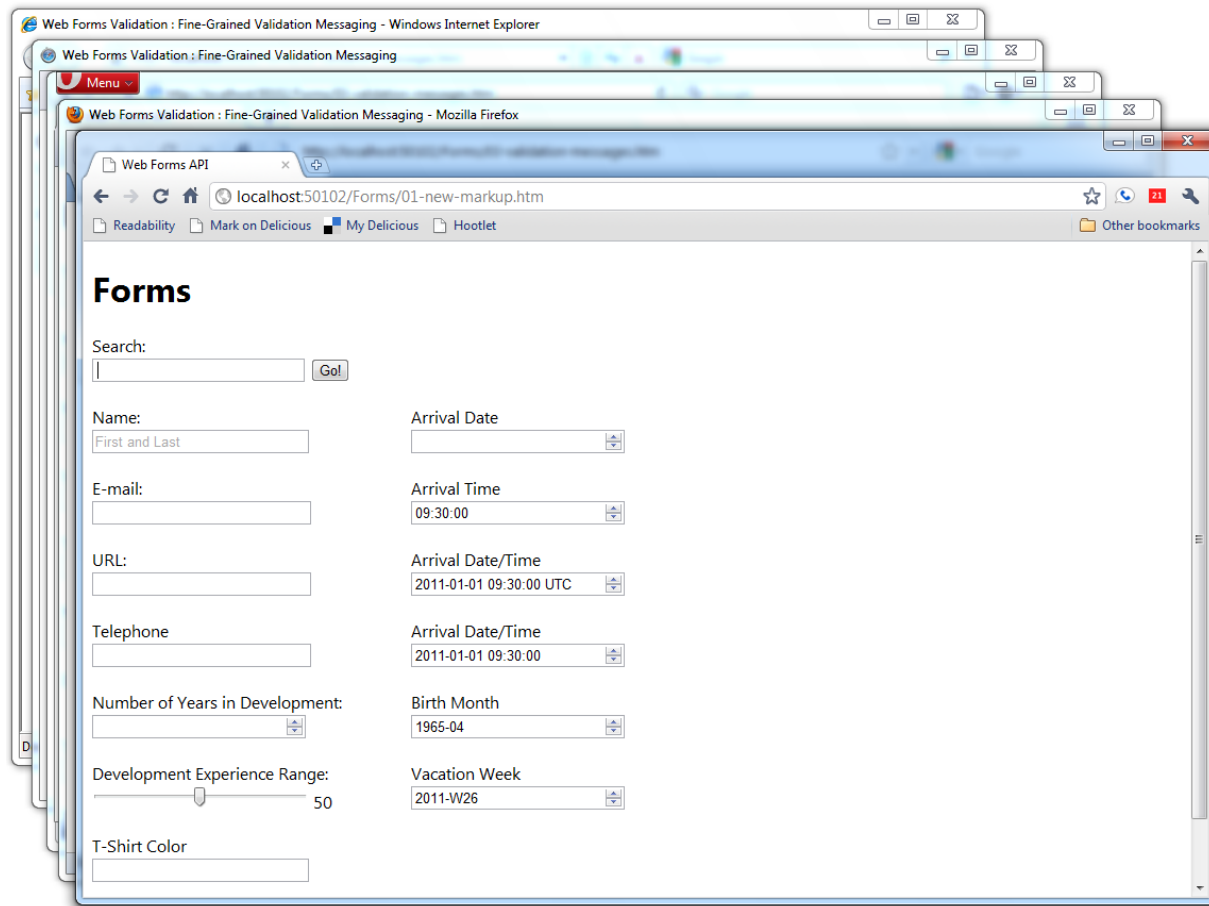
Search:



# Demo



# Browser Support



*When can I use these tags?*

When can I use these tags?

Today!

# Text Soft Keyboard



# Number Soft Keyboard



# URL Soft Keyboard



# Email Soft Keyboard



# Forms Validation

## Change Email Address

Username:

The username is required.

Email:

An email address is required.



# Built-In Validation Rules

`valueMissing`

`typeMismatch`

`patternMismatch`

`tooLong`

`rangeUnderflow` and `rangeOverflow`

`stepMismatch`

`valid`

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

## **valueMissing**

Returns true if a required element is empty.

## **typeMismatch**

## **patternMismatch**

## **tooLong**

## **rangeUnderflow** and **rangeOverflow**

## **stepMismatch**

## **valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

Applies to all the new `type` attributes. For example, if an `email` value is incorrect, this attribute returns true.

**patternMismatch**

**tooLong**

**rangeUnderflow** and **rangeOverflow**

**stepMismatch**

**valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

**patternMismatch**

Returns true when an element contains the pattern attribute and doesn't conform to the regular expression.

**tooLong**

**rangeUnderflow** and **rangeOverflow**

**stepMismatch**

**valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

**patternMismatch**

**tooLong**

Returns true when any element surpasses its `maxlength` property.

**rangeUnderflow** and **rangeOverflow**

**stepMismatch**

**valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

**patternMismatch**

**tooLong**

**rangeUnderflow** and **rangeOverflow**

Returns true if an element's `min` or `max` attributes are above or below the specified values.

**stepMismatch**

**valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

**patternMismatch**

**tooLong**

**rangeUnderflow** and **rangeOverflow**

**stepMismatch**

Returns true when an element with the `step` attribute doesn't conform to the required step value.

**valid**

<http://www.alistapart.com/articles/forward-thinking-form-validation/>

# Built-In Validation Rules

**valueMissing**

**typeMismatch**

**patternMismatch**

**tooLong**

**rangeUnderflow** and **rangeOverflow**

**stepMismatch**

**valid**

Returns true if all of the rules listed above do not return true.

<http://www.alistapart.com/articles/forward-thinking-form-validation/>



# Demo

# Summary

- **HTML5 features many new input types and tags**
- **Browser support is sporadic (as of early 2011)**
- **Use today is acceptable & encouraged**
- **Validation is supported and provides many options**

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