How to format a JavaScript date

Asked 8 years, 11 months ago Active 6 days ago Viewed 3.1m times



How can I format a JavaScript date object to print as 10-Aug-2010 ?

1776

javascript date date-format time-format





314

edited Apr 4 '18 at 6:29

Sunil Garg

5,039 8 57 86

asked Aug 23 '10 at 23:28



4.4k 301 775 1279

- 149 As usual: beware THE MONTH is ZERO-INDEXED! So January is zero not one... Christophe Roussy Nov 19 '15 at 12:45 🖍
- Also beware, myDate.getDay() doesn't return the day of week, but the **location of the weekday** related to the week. myDate.getDate() returns the **current weekday**. Jimenemex Aug 18 '17 at 19:47
- For formatting DateTimes in javascript use the Intl.DateTimeFormat object. I describe it in my post: Post. I create an online solution for your answer by Intl.DateTimeFormat Check Online Iman Bahrampour Oct 13 '17 at 11:05
- 2 You can use toLocaleDateString onmyway133 Nov 5 '18 at 13:50
- It took javascript so long to get URL as a standardized object, where you can pluck out a query param key, grab the protocol, grab the top level domain, etc. They can make ES6 ES7 but still can't just put a standard date time formatter/parser in 2019? It's as if they're thinking "hmmm yes... who on earth using javascript would have a need to deal with times and dates on a regular basis...." ahnbizcad Jan 19 at 4:35

50 Answers

1 2 next



1069

Attention: There are better answers below. This answer was written in 2010 and newer and better solutions have arrived since. The OP should accept another answer.





```
function formatDate(date) {
  var monthNames = [
    "January", "February", "March",
    "April", "May", "June", "July",
    "August", "September", "October",
    "November", "December"
  ];
  var day = date.getDate();
  var monthIndex = date.getMonth();
  var year = date.getFullYear();
  return day + ' ' + monthNames[monthIndex] + ' ' + year;
console.log(formatDate(new Date())); // show current date-time in console
                                                                                                                             Full page
    Run code snippet
                           Hide results
12 August 2019
                                                                                                                     10:50:39.220
```

You can edit the array monthNames to use Jan, Feb, Mar, etc..

edited May 13 '18 at 10:23

answered Aug 23 '10 at 23:35



49.5k 25 113 146

327 Really consider using a library like Moment.js or Date.js instead. This problem has been solved many times over. – Benjamin Oakes Jan 17 '12 at 19:43

- 201 Why don't they include a function in Date object to do this? Nayan Jul 24 '14 at 15:04
- One important point is that getMonth() method returns a 0 based month index so for example January will return 0 February will return 1, etc... Marko Oct 31 '14 at 14:54
- 545 moment.js 2.9.0 is 11.6k gzipped, this example is 211 bytes gzipped. mrzmyr Mar 30 '15 at 3:50 🖍
- Should be noted that you should never ever, ever, use document.write(). Huge security and performance issues. Matt Jensen Sep 9 '15 at 17:27



Use toLocaleDateString()

1594

The toLocaleDateString() method returns a string with a language-sensitive representation of the date portion of the date. The locales and options arguments let applications specify the language whose formatting conventions should be used and allow to customize the behavior of the function.

The values you can passed in options for different keys:

1. day:

The representation of the day.

Possible values are "numeric", "2-digit".

2. weekday:

The representation of the weekday.

Possible values are "narrow", "short", "long".

3. year:

The representation of the year.

Possible values are "numeric", "2-digit".

4. month:

The representation of the month.

Possible values are "numeric", "2-digit", "narrow", "short", "long".

5. **hour:**

The representation of the hour.

Possible values are "numeric", "2-digit".

6. **minute:** The representation of the minute.

Possible values are "numeric", "2-digit".

7. second:

The representation of the second.

Possible values are "numeric", 2-digit".

All these keys are optional. You can change the number of options values based on your requirements, and this will also reflect the presence of each date time term.

Note: If you would only like to configure the content options, but still use the current locale, passing <code>null</code> for the first parameter will cause an error. Use <code>undefined</code> instead.

For different languages:

```
1. "en-US": For English
```

2. "hi-IN": For Hindi

3. "ja-JP": For Japanese

You can use more language options.

For example

```
var options = { weekday: 'long', year: 'numeric', month: 'long', day: 'numeric' };
var today = new Date();

console.log(today.toLocaleDateString("en-US")); // 9/17/2016
console.log(today.toLocaleDateString("en-US", options)); // Saturday, September 17, 2016
console.log(today.toLocaleDateString("hi-IN", options)); // शनिवार, 17 सितंबर 2016

Run code snippet

Expand snippet
```

You can also use the toLocaleString() method for the same purpose. The only difference is this function provides the time when you don't pass any options.

```
// Example 9/17/2016, 1:21:34 PM
```

References:

- toLocaleString()
- toLocaleDateString()

edited Jan 29 at 11:54



pupeno

110k 102 281

answered Dec 1 '15 at 8:11



📆 ajeet kanojia **16k** 1 6 7

- Was almost about to use moment.js for a simple format. Fortunately did an extra google search and find there is already native API doing this. Saved a external dependency. Awesome! - LeOn - Han Li Sep 29 '17 at 3:19
- 14 Seems like this answer should be the best "current" answer. Also used the option "hour12: true" to use 12-hour vs 24-hour format. Maybe should be added to your summary list in the answer. - Doug Knudsen Dec 17 '17 at 17:08
- This is the correct modern answer that formats natively and efficiently you leverage the Intl.DateTimeFormat class. Dan Jan 5 '18 at 7:18
- NEVERMIND:) just use undefined:) carinlynchin Mar 22 '18 at 14:39
- I don't get the upvotes on this answer. It does not solve the problem in the question. (i.e. give me a date which looks like 10-Aug-2010). Using toLocaleDateString() that is quite difficult. The date.format library seems to be the better solution (at least for Node users) - larwa1n Jun 24 '18 at 8:40



Use the date.format library:

```
var dateFormat = require('dateformat');
var now = new Date();
dateFormat(now, "dddd, mmmm dS, yyyy, h:MM:ss TT");
```

returns:

Saturday, June 9th, 2007, 5:46:21 PM

dateformat on npm

http://jsfiddle.net/phZr7/1/

edited Dec 14 '15 at 15:38



answered Aug 23 '10 at 23:35



RobertPitt

46.2k 17 102 144

- 4 this might seem like the longer solution but compressed and used on a site that uses dates a fair bit would be the better solution! RobertPitt Aug 25 '10 at 18:33
- 5 This solution is also available as an npm package: npmjs.com/package/dateformat David Oct 21 '15 at 15:29
- 15 There are 14 open issues with the above plugin. Even I found one :(Amit Kumar Gupta Jul 30 '16 at 16:16
- 5 I get require is not defined Hooli Nov 12 '16 at 17:40
- 11 OP asked for JS solution Luke Pring Aug 25 '17 at 12:23



If you need to quickly format your date using plain JavaScript, use getDate, getMonth + 1, getFullYear, getHours and getMinutes:

434

```
var d = new Date();
```



```
var datestring = d.getDate() + "-" + (d.getMonth()+1) + "-" + d.getFullYear() + " " +
d.getHours() + ":" + d.getMinutes();
// 16-5-2015 9:50
```

Or, if you need it to be padded with zeros:

```
var datestring = ("0" + d.getDate()).slice(-2) + "-" + ("0"+(d.getMonth()+1)).slice(-2)
+ "-" +
    d.getFullYear() + " " + ("0" + d.getHours()).slice(-2) + ":" + ("0" +
    d.getMinutes()).slice(-2);
// 16-05-2015 09:50
```

edited Aug 11 '15 at 16:25



lorem monkey 3.017 3 28 45 answered May 16 '15 at 7:02



44 The prefix "0" .slice(-2) is really nice way to assure padded zeros. Melikes – Nicholi Aug 25 '15 at 23:23

Can you tell how to get format like Monday, March 23 2018?? - Sachin HR Aug 27 '18 at 12:01

- 4 you can also pad zeros with .toString().padStart(2, '0') Benny Jobigan Jan 15 at 10:30
- 1 @DmitryoN, if needed, the year can be padded the same way: ("000" + d.getFullYear()).slice(-4) sebastian.i May 10 at 11:19

2 @BennyJobigan It should be mentioned that String.padStart() is only available from ECMAScript 2017. – JHH May 17 at 11:33



Well, what I wanted was to convert today's date to a MySQL friendly date string like 2012-06-23, and to use that string as a parameter in one of my queries. The simple solution I've found is this:

361

```
var today = new Date().toISOString().slice(0, 10);
```



You might consider using this function instead:

```
function toJSONLocal (date) {
   var local = new Date(date);
   local.setMinutes(date.getMinutes() - date.getTimezoneOffset());
   return local.toJSON().slice(0, 10);
}
```

This will give you the correct date in case you are executing this code around the start/end of the day.

- Example: http://jsfiddle.net/simo/sapuhzmm/
- Date.toISOString
- Date.toJSON
- String.slice

edited May 21 at 7:51

answered Jun 23 '12 at 18:49



9,896

396 6 36 51

- You can do new Date(date + " UTC") to trick the timezone, and you can eliminate the setMinutes line. Man, javascript is dirty Vajk Hermecz Oct 22 '15 at 22:01
- 50 not Y10K compatible :(slang Nov 10 '15 at 2:41
- 19 Y10K compatible version: var today = new Date().toISOString().slice(0,-14) :) Alex Shaffer Feb 25 '16 at 13:27
- 15 Or like this new Date().toISOString().split('T')[0] rofrol Jun 2'16 at 14:57

2 new Date().toISOString().slice(0, 16).replace('T',' ') to include time — Gerrie van Wyk Apr 25'18 at 19:54 🖍



Custom formatting function:

181 For fixed formats, a simple function make the job. The following example generates the international format YYYY-MM-DD:



```
function dateToYMD(date) {
    var d = date.getDate();
    var m = date.getMonth() + 1; //Month from 0 to 11
    var y = date.getFullYear();
    return '' + y + '-' + (m<=9 ? '0' + m : m) + '-' + (d <= 9 ? '0' + d : d);
}
console.log(dateToYMD(new Date(2017,10,5))); // Nov 5</pre>

Run code snippet

Expand snippet
```

The OP format may be generated like:

Note: It is, however, usually not a good idea to extend the JavaScript standard libraries (e.g. by adding this function to the prototype of Date).

A more advanced function could generate configurable output based on a format parameter.

If to write a formatting function is too long, there are plenty of libraries around which does it. Some other answers already enumerate them. But increasing dependencies also has it counter-part.

Standard ECMAScript formatting functions:

Since more recent versions of ECMAScript, the Date class has some specific formatting functions:

toDateString: Implementation dependent, show only the date.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.todatestring

```
new Date().toDateString(); // e.g. "Fri Nov 11 2016"
```

tolSOString: Show ISO 8601 date and time.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.toisostring

```
new Date().toISOString(); // e.g. "2016-11-21T08:00:00.000Z"
```

toJSON: Stringifier for JSON.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.tojson

```
new Date().toJSON(); // e.g. "2016-11-21T08:00:00.000Z"
```

toLocaleDateString: Implementation dependent, a date in locale format.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.tolocaledatestring

```
new Date().toLocaleDateString(); // e.g. "21/11/2016"
```

toLocaleString: Implementation dependent, a date&time in locale format.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.tolocalestring

```
new Date().toLocaleString(); // e.g. "21/11/2016, 08:00:00 AM"
```

toLocaleTimeString: Implementation dependent, a time in locale format.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.tolocaletimestring

```
new Date().toLocaleTimeString(); // e.g. "08:00:00 AM"
```

toString: Generic toString for Date.

http://www.ecma-international.org/ecma-262/7.0/index.html#sec-date.prototype.tostring

```
new Date().toString(); // e.g. "Fri Nov 21 2016 08:00:00 GMT+0100 (W. Europe Standard
Time)"
```

Note: it is possible to generate custom output out of those formatting >

```
new Date().toISOString().slice(0,10); //return YYYY-MM-DD
```

Examples snippets:

```
console.log("1) "+ new Date().toDateString());
console.log("2) "+ new Date().toISOString());
console.log("3) "+ new Date().toJSON());
console.log("4) "+ new Date().toLocaleDateString());
console.log("5) "+ new Date().toLocaleString());
console.log("6) "+ new Date().toLocaleTimeString());
```

edited Nov 30 '17 at 20:22

answered Apr 12 '17 at 9:09

Adrian Maire

7.515 6 24 59

2 Thanks for the last one.. Useful for setting the date value of HTML Date inputs. – daCoda Jan 30 at 1:08

```
new Date().toLocaleDateString() gives you mm/dd/yyyy not dd/mm/yyyy please correct that one. - Rajan Verma Jul 2 at 7:17 🖍
```

@RajanVerma: toLocaleDateString provides your locale, which is probably mm/dd/yyyy because you are in USA. Here, the locale for date is dd/mm/yyyy (that is exactly the point of "locale"). I wrote "e.g." because it is not the specification, but an example of output. – Adrian Maire Jul 10 at 11:09



If you are already using jQuery UI in your project you could do it this way:

169

```
var formatted = $.datepicker.formatDate("M d, yy", new Date("2014-07-08T09:02:21.377"));
// formatted will be 'Jul 8, 2014'
```

Some datepicker date format options to play with are available here.

edited Aug 21 '14 at 20:44

answered Jul 9 '14 at 13:52



- As I said if jQueryUI is used in project already why not to re-use the datepicker date formatting function? Hey guys, I don't undersatnd why I'm getting negative voting on my answer? Please explain. Dmitry Pavlov Aug 6 '14 at 15:20
- It might be because someone could include jQuery UI just for the date format function, or it might be because the datepicker is an optional part of the library, but probably it's because hating jQuery is fashionable. sennett Aug 21 '14 at 13:53
- 12 I don't think it is possible to completely avoid all strange decisions that someone could do by mistake or by absense of sense. Dmitry Pavlov Aug 21 '14 at 20:43

- @sennett: Hating jQuery is fashionable? So is walking around with your pants halfway down your legs, I suppose... which is pretty much what trying to code without jQuery was like for most of JavaScript's history... - Michael Scheper Sep 22 '16 at 19:10
- In any case, this is a helpful and entirely reasonable answer—again, 70% of websites use jQuery. It shouldn't be getting downvoted because of developers' religious beliefs. - Michael Scheper Oct 30 '16 at 21:13



I think you can just use the **non-standard** Date method toLocaleFormat(formatString)

127

formatString: A format string in the same format expected by the strftime() function in C.



```
var today = new Date();
today.toLocaleFormat('%d-%b-%Y'); // 30-Dec-2011
```

References:

- tolocaleformat
- strftime

edited Oct 15 '15 at 8:51 Slava Fomin II **11.2k** 13 73 142 answered Dec 30 '11 at 5:33



1,527 1 9 3

- toLocaleFormat() appears to only work in Firefox. Both IE and Chrome are failing for me. fitzgeraldsteele Jun 11 '12 at 21:02
- Chrome has .toLocaleString('en') method. As it seems new browser supports this <u>developer.mozilla.org/en-US/docs/Web/JavaScr</u>ipt/Reference/... apocalypz Jul 9 '14 at 12:44
- 7 Read warning here: developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/... - Carson Reinke Feb 9 '15 at 20:09
- 6 this would be the best solution if everyone could f*in implement it. damn you ie/chrome - santa Feb 26 '16 at 14:10
- 5 @santa: Indeed. Maybe there was a fair reason not to follow Mozilla's lead on this, but the fact that even ES6 doesn't have a standard function for this shows that it's still a hacker's language, not a developer's language. - Michael Scheper Sep 22 '16 at 19:16



99

Plain JavaScript is the best pick for small onetimers.

On the other hand, if you need more date stuff, MomentJS is a great solution.



For example:

edited Mar 4 '17 at 22:17



Peter Mortensen

14.3k 19 88 116

answered Dec 24 '14 at 10:15



Mite Mitreski

2,932 2 24 37

I think you will probably need more date stuff!! - morhook Mar 15 '17 at 12:29

1 moment is obsolete, use luxon – Gerry Apr 11 at 15:35



In modern browsers (*), you can just do this:

92

```
var today = new Date().toLocaleDateString('en-GB', {
    day : 'numeric',
    month : 'short',
    year : 'numeric'
}).split(' ').join('-');
```

Output if executed today (january 24th, 2016):

```
'24-Jan-2016'
```

(*) <u>According to MDN</u>, "modern browsers" means Chrome 24+, Firefox 29+, Internet Explorer 11, Edge 12+, Opera 15+ & Safari <u>nightly build</u>.

edited Jun 8 '17 at 14:55

answered Jan 24 '16 at 21:09



John Slegers

30.4k 13 160 137

Is there a way to check if this function is supported and if not, default to a simpler solution? – James Wierzba Sep 7 '16 at 22:28

@JamesWierzba: You could use this polyfill! - John Slegers Sep 12 '16 at 7:56

This isn't even listed on caniuse.com:/ - Charles Wood Oct 17 '17 at 0:45



You should have a look at <u>date.js</u>. It adds many convenient helpers for working with dates, for example, in your case:

var date = Date.parse('2010-08-10');
console.log(date.toString('dd-MMM-yyyy'));



Getting started: http://www.datejs.com/2007/11/27/getting-started-with-datejs/





Peter Mortensen **14.3k** 19 88 116

answered Dec 30 '11 at 8:10



,**122** 4 39 54

Thanks. This is a very comprehensive and complete library, with a small footprint. – mitcheljh Jan 14 '18 at 23:06

I think currently I'm getting a number from Date.parse while let date = new Date(fromString) has more functions. Unfortunately to my surprise toString also seems to just display a default without interpreting the passed argument for formatting it. Using NodeJS 11+ toDateString is a shorter output but doesn't take formatting. All I see is a very convoluted toLocaleDateString – Master James Dec 4 '18 at 11:25



@Sébastien -- alternative all browser support

35

new Date(parseInt(496407600)*1000).toLocaleDateString('de-DE', {
year: 'numeric',
month: '2-digit',
day: '2-digit'
}).replace(/\./g, '/');

Documentation: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global Objects/Date/toLocaleDateString

answered Oct 2 '14 at 16:40



- 5 Instead of doing .replace(), you could simply use 'en-GB' as locale. :) Roberto14 Feb 27 '15 at 12:29
- 1 This is really nice, e.g. new Date().toLocaleDateString("en-EN", {month: "short", weekday: "short", day: "2-digit", year: "numeric"}) returns "Wed, Sep 06, 2017" Pedi T. Sep 6'17 at 14:03

There is good enough browser support for this. – desmati Dec 30 '18 at 13:55



I can get your requested format in one line using no libraries and no Date methods, just regex:



Update: As @RobG pointed out, the output of Date.prototype.toString() is implementation-dependent. So, use with caution and modify if necessary for your implementations if you use this solution. In my testing, this works reliably in North America where the major browsers (Chrome, Safari, Firefox and IE) all return the same string format.

edited Sep 10 '16 at 3:28

answered Oct 14 '15 at 17:25



console.log(new Date().toString().replace($/\S+\s(\S+)$

@André - I agree. If this were my code, I would most certainly include a comment alongside it that explains the regex and gives an example of the input and corresponding output. – JD Smith Dec 6 '18 at 21:18



Using an ECMAScript Edition 6 (ES6/ES2015) string template:

28

```
let d = new Date();
let formatted = `${d.getFullYear()}-${d.getMonth() + 1}-${d.getDate()}`;
```



If you need to change the delimiters:

```
const delimiter = '/';
let formatted = [d.getFullYear(), d.getMonth() + 1, d.getDate()].join(delimiter);
```

edited May 7 '18 at 13:31

answered Aug 28 '17 at 12:49





Packaged Solution: Luxon

19

If you want to use a one solution to fit all, I highly recommend using Luxon (a modernized version of <u>Moment.js</u>) which also does formatting in many locales/languages and tons of other features.



Luxon is hosted on the Moment.js website and developed by a Moment.js developer because Moment.js has limitations that the developer wanted to address but couldn't.

To install:

npm install luxon Or yarn add luxon (visit link for other installation methods)

Example:

luxon.DateTime.fromISO('2010-08-10').toFormat('yyyy-LLL-dd');

Yields:

10-Aug-2010

Manual Solution

Using similar formatting as Moment.js, <u>Class DateTimeFormatter (Java)</u>, and <u>Class SimpleDateFormat (Java)</u>, I implemented a comprehensive solution <code>formatDate(date, patternStr)</code> where the code is easy to read and modify. You can display date, time, AM/PM, etc. See code for more examples.

Example:

```
formatDate(new Date(), 'EEEE, MMMM d, yyyy HH:mm:ss:S')
```

(formatDate is implemented in the code snippet below)

Yields:

Friday, October 12, 2018 18:11:23:445

Try the code out by clicking "Run code snippet."

Date and Time Patterns

```
yy = 2-digit year; yyyy = full year

M = digit month; MM = 2-digit month; MMM = short month name; MMMM = full month name

EEEE = full weekday name; EEE = short weekday name

d = digit day; dd = 2-digit day

h = hours am/pm; hh = 2-digit hours am/pm; H = hours; HH = 2-digit hours

m = minutes; mm = 2-digit minutes; aaa = AM/PM

s = seconds; ss = 2-digit seconds

s = miliseconds
```

```
var monthNames = [
  "January", "February", "March", "April", "May", "June", "July",
  "August", "September", "October", "November", "December"
1;
var dayOfWeekNames = [
  "Sunday", "Monday", "Tuesday",
  "Wednesday", "Thursday", "Friday", "Saturday"
function formatDate(date, patternStr){
    if (!patternStr) {
        patternStr = 'M/d/yyyy';
   var day = date.getDate(),
        month = date.getMonth(),
        year = date.getFullYear(),
        hour = date.getHours(),
        minute = date.getMinutes(),
        second = date.getSeconds(),
        miliseconds = date.getMilliseconds(),
        h = hour \% 12,
        hh = twoDigitPad(h),
```

```
HH = twoDigitPad(hour),
        mm = twoDigitPad(minute),
        ss = twoDigitPad(second),
        aaa = hour < 12 ? 'AM' : 'PM',</pre>
        EEEE = dayOfWeekNames[date.getDay()],
        EEE = EEEE.substr(0, 3),
        dd = twoDigitPad(day),
        M = month + 1,
        MM = twoDigitPad(M),
        MMMM = monthNames[month],
        MMM = MMMM.substr(0, 3),
        yyyy = year + "",
        yy = yyyy.substr(2, 2)
    // checks to see if month name will be used
    patternStr = patternStr
      .replace('hh', hh).replace('h', h)
      .replace('HH', HH).replace('H', hour)
      .replace('mm', mm).replace('m', minute)
      .replace('ss', ss).replace('s', second)
      .replace('S', miliseconds)
      .replace('dd', dd).replace('d', day)
      .replace('EEEE', EEEE).replace('EEE', EEE)
      .replace('yyyy', yyyy)
      .replace('yy', yy)
      .replace('aaa', aaa);
    if (patternStr.indexOf('MMM') > -1) {
        patternStr = patternStr
          .replace('MMMM', MMMM)
          .replace('MMM', MMM);
    }
    else {
        patternStr = patternStr
          .replace('MM', MM)
          .replace('M', M);
    return patternStr;
function twoDigitPad(num) {
    return num < 10 ? "0" + num : num;</pre>
}
console.log(formatDate(new Date()));
console.log(formatDate(new Date(), 'dd-MMM-yyyy')); //OP's request
console.log(formatDate(new Date(), 'EEEE, MMMM d, yyyy HH:mm:ss.S aaa'));
console.log(formatDate(new Date(), 'EEE, MMM d, yyyy HH:mm'));
console.log(formatDate(new Date(), 'yyyy-MM-dd HH:mm:ss.S'));
console.log(formatDate(new Date(), 'M/dd/yyyy h:mmaaa'));
```

Run code snippet

Expand snippet

Thank you @Gerry for bringing up Luxon.

edited Aug 6 at 1:22

answered Oct 13 '18 at 4:19



lewdev

3,247 1 15 16

- 1 By the way, the troublesome SimpleDateFormat class was supplanted years ago by the java.time.format.DateTimeFormatter class.—
 Basil Bourque Oct 13 '18 at 16:40
- 1 @BasilBourque, noted. They both use the same patterns. I was on a pre-Java8 project for 5 years so I never got exposed to the newer stuff. Thanks! lewdev Oct 15 '18 at 20:34

See <u>ThreeTen-Backport</u> project for Java 6 & 7, to get most of the *java.time* functionality with nearly identical API. – Basil Bourque Oct 15 '18 at 20:37

@BasilBourque thanks for the reference, but I don't work on that project anymore but I'll definitely keep this in mind when it comes up. – lewdev Oct 15 '18 at 21:07

Keep in mind that here on Stack Overflow I am speaking to the two million readers of this page, not really you individually. ;-) – Basil Bourque Oct 15 '18 at 21:09



Here's is some code I just wrote to handle the date formatting for a project I'm working on. It mimics the PHP date formatting functionality to suit my needs. Feel free to use it, it's just extending the already existing Date() object. This may not be the most elegant solution but it's working for my needs.



```
'May',
                         'June',
                         'July',
                         'August',
                         'September',
                         'October',
                         'November',
                         'December'
                     ];
    return month names[this.getMonth()];
}
// Provide month abbreviation
Date.prototype.getMonthAbbr = function(){
    var month abbrs = [
                         'Jan',
                         'Feb',
                         'Mar',
                         'Apr',
                         'May',
                         'Jun',
                         'Jul',
                         'Aug',
                         'Sep',
                         'Oct',
                         'Nov',
                         'Dec'
                     ];
    return month abbrs[this.getMonth()];
// Provide full day of week name
Date.prototype.getDayFull = function(){
    var days_full = [
                         'Sunday',
                         'Monday',
                         'Tuesday',
                         'Wednesday',
                         'Thursday',
                         'Friday',
                         'Saturday'
                     ];
    return days_full[this.getDay()];
};
// Provide full day of week name
Date.prototype.getDayAbbr = function(){
```

```
var days abbr = [
                         'Sun',
                         'Mon',
                        'Tue',
                         'Wed',
                         'Thur',
                        'Fri',
                         'Sat'
                    ];
    return days abbr[this.getDay()];
};
// Provide the day of year 1-365
Date.prototype.getDayOfYear = function() {
    var onejan = new Date(this.getFullYear(),0,1);
    return Math.ceil((this - onejan) / 86400000);
};
// Provide the day suffix (st,nd,rd,th)
Date.prototype.getDaySuffix = function() {
    var d = this.getDate();
    var sfx = ["th","st","nd","rd"];
    var val = d%100;
    return (sfx[(val-20)%10] || sfx[val] || sfx[0]);
};
// Provide Week of Year
Date.prototype.getWeekOfYear = function() {
    var onejan = new Date(this.getFullYear(),0,1);
    return Math.ceil((((this - onejan) / 86400000) + onejan.getDay()+1)/7);
// Provide if it is a leap year or not
Date.prototype.isLeapYear = function(){
    var yr = this.getFullYear();
    if ((parseInt(yr)\%4) == 0){
        if (parseInt(yr)%100 == 0){
            if (parseInt(yr)%400 != 0){
                return false;
            if (parseInt(yr)%400 == 0){
                return true;
            }
        if (parseInt(yr)%100 != 0){
            return true;
```

```
if ((parseInt(yr)%4) != 0){
        return false;
};
// Provide Number of Days in a given month
Date.prototype.getMonthDayCount = function() {
    var month_day_counts = [
                                 31,
                                 this.isLeapYear() ? 29 : 28,
                                 31,
                                 30,
                                 31,
                                 30,
                                 31,
                                 31,
                                 30,
                                 31,
                                 30,
                                 31
                             ];
    return month day counts[this.getMonth()];
}
// format provided date into this.format format
Date.prototype.format = function(dateFormat){
    // break apart format string into array of characters
    dateFormat = dateFormat.split("");
    var date = this.getDate(),
        month = this.getMonth(),
        hours = this.getHours(),
        minutes = this.getMinutes(),
        seconds = this.getSeconds();
    // get all date properties ( based on PHP date object functionality )
    var date props = {
        d: date < 10 ? '0'+date : date,</pre>
        D: this.getDayAbbr(),
        j: this.getDate(),
        1: this.getDayFull(),
        S: this.getDaySuffix(),
        w: this.getDay(),
        z: this.getDayOfYear(),
        W: this.getWeekOfYear(),
        F: this.getMonthName(),
        m: month < 10 ? '0'+(month+1) : month+1,</pre>
        M: this.getMonthAbbr(),
```

```
n: month+1,
           t: this.getMonthDayCount(),
           L: this.isLeapYear() ? '1' : '0',
           Y: this.getFullYear(),
           y: this.getFullYear()+''.substring(2,4),
           a: hours > 12 ? 'pm' : 'am',
           A: hours > 12 ? 'PM' : 'AM',
           g: hours % 12 > 0 ? hours % 12 : 12,
           G: hours > 0 ? hours : "12",
           h: hours % 12 > 0 ? hours % 12 : 12,
           H: hours,
           i: minutes < 10 ? '0' + minutes : minutes,
           s: seconds < 10 ? '0' + seconds : seconds
       };
       // loop through format array of characters and add matching data else add the
format character (:,/, etc.)
       var date string = "";
       for(var i=0;i<dateFormat.length;i++){</pre>
           var f = dateFormat[i];
           if(f.match(/[a-zA-Z]/g)){
               date_string += date_props[f] ? date_props[f] : '';
           } else {
               date_string += f;
           }
       }
       return date string;
   };
 * END - Date class extension
```

answered May 6 '13 at 20:22



edited May 8 '13 at 18:15



OK, we have got something called **Intl** which is very useful for formatting a date in JavaScript these days:

17

Your date as below:

```
var date = '10/8/2010';
```

And you change to Date by using new Date() like below:

```
date = new Date(date);
```

And now you can format it any way you like using a list of **locales** like below:

```
date = new Intl.DateTimeFormat('en-AU').format(date); // Australian date format:
"8/10/2010"
```

```
date = new Intl.DateTimeFormat('en-US').format(date); // USA date format: "10/8/2010"
```

```
date = new Intl.DateTimeFormat('ar-EG').format(date); // Arabic date format:
" \( \tau \cdot \cdo
```

If you exactly want the format you mentioned above, you can do:

```
date = new Date(Date.UTC(2010, 7, 10, 0, 0, 0));
var options = {year: "numeric", month: "short", day: "numeric"};
date = new Intl.DateTimeFormat("en-AU", options).format(date).replace(/\s/g, '-');
```

And the result is going to be:

```
"10-Aug-2010"
```

For more details about ECMAScript Internationalization API (Intl), visit here.

edited Jan 19 at 0:34

answered Jul 19 '17 at 12:58



Not supported by IE – Pants yesterday



If you are using jQuery UI in your code, there is an inbuilt function called formatDate(). I am using it this way to format today's date:

15

```
var testdate = Date();
testdate = $.datepicker.formatDate( "d-M-yy", new Date(testdate));
alert(testdate);
```

You can see many other examples of formatting date in the jQuery UI documentation.



9,619 4 53 77

webzy 263 2 10

answered Nov 17 '14 at 13:32



We have lots of solutions for this, but I think the best of them is Moment.js. So I personally suggest to use Moment.js for date and time operations.

14



```
console.log(moment().format('DD-MMM-YYYY'));

<script src="//cdnjs.cloudflare.com/ajax/libs/moment.js/2.14.1/moment.min.js"></script>

Run code snippet

Expand snippet
```

edited Mar 4 '17 at 22:33



answered Aug 29 '16 at 9:48



why are you including jquery? - Ced Oct 18 '16 at 17:23

1 Ohh sorry its not require. Thanks @Ced – Vijay Maheriya Oct 21 '16 at 6:47

how to provide the date i have to moment.js? I think it always takes current time. - Dave Ranjan Dec 1 '16 at 14:18

1 @DaveRanjan i think you need to convert your custom date. So use this : console.log(moment('2016-08-10').format('DD-MMM-YYYY')); — Vijay Maheriya Dec 5 '16 at 5:59

Yeah, figured it out later. Thanks:) - Dave Ranjan Dec 6 '16 at 7:04



A useful and flexible way for formatting the DateTimes in JavaScript is Intl.DateTimeFormat:

14

```
var date = new Date();
var options = { year: 'numeric', month: 'short', day: '2-digit'};
var _resultDate = new Intl.DateTimeFormat('en-GB', options).format(date);
// The _resultDate is: "12 Oct 2017"
// Replace all spaces with - and then log it.
console.log(_resultDate.replace(/ /g,'-'));
```

Result Is: "12-0ct-2017"

The date and time formats can be customized using the options argument.

The Intl.DateTimeFormat object is a constructor for objects that enable language sensitive date and time formatting.

Syntax

```
new Intl.DateTimeFormat([locales[, options]])
Intl.DateTimeFormat.call(this[, locales[, options]])
```

Parameters

locales

Optional. A string with a BCP 47 language tag, or an array of such strings. For the general form and interpretation of the locales argument, see the Intl page. The following Unicode extension keys are allowed:

```
nu
Numbering system. Possible values include: "arab", "arabext", "bali", "beng", "deva",
"fullwide", "gujr", "guru", "hanidec", "khmr", "knda", "laoo", "latn", "limb", "mlym",
"mong", "mymr", "orya", "tamldec", "telu", "thai", "tibt".
ca
Calendar. Possible values include: "buddhist", "chinese", "coptic", "ethioaa",
"ethiopic", "gregory", "hebrew", "indian", "islamic", "islamicc", "iso8601", "japanese",
"persian", "roc".
```

Options

Optional. An object with some or all of the following properties:

localeMatcher

The locale matching algorithm to use. Possible values are "lookup" and "best fit"; the default is "best fit". For information about this option, see the Intl page.

timeZone

The time zone to use. The only value implementations must recognize is "UTC"; the default is the runtime's default time zone. Implementations may also recognize the time zone names of the IANA time zone database, such as "Asia/Shanghai", "Asia/Kolkata", "America/New_York".

hour12

Whether to use 12-hour time (as opposed to 24-hour time). Possible values are true and false; the default is locale dependent.

formatMatcher

The format matching algorithm to use. Possible values are "basic" and "best fit"; the default is "best fit". See the following paragraphs for information about the use of this property.

The following properties describe the date-time components to use in formatted output and their desired representations. Implementations are required to support at least the following subsets:

```
weekday, year, month, day, hour, minute, second
weekday, year, month, day
year, month, day
year, month
month, day
hour, minute, second
hour, minute
```

Implementations may support other subsets, and requests will be negotiated against all available subset-representation combinations to find the best match. Two algorithms are available for this negotiation and selected by the formatMatcher property: A fully specified "basic" algorithm and an implementation dependent "best fit" algorithm.

weekday

The representation of the weekday. Possible values are "narrow", "short", "long".

era

The representation of the era. Possible values are "narrow", "short", "long".

year

The representation of the year. Possible values are "numeric", "2-digit".

month

The representation of the month. Possible values are "numeric", "2-digit", "narrow", "short", "long".

day

The representation of the day. Possible values are "numeric", "2-digit".

hour

The representation of the hour. Possible values are "numeric", "2-digit".

minute

The representation of the minute. Possible values are "numeric", "2-digit".

second

The representation of the second. Possible values are "numeric", "2-digit".

timeZoneName

The representation of the time zone name. Possible values are "short", "long". The default value for each date-time component property is undefined, but if all component properties are undefined, then the year, month and day are assumed to be "numeric".

Check Online

More Details

edited Nov 1 '17 at 19:15

answered Oct 13 '17 at 10:58





A JavaScript solution without using any external libraries:

14

```
var now = new Date()
months = ['Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov',
'Dec']
var formattedDate = now.getDate() + "-" + months[now.getMonth()] + "-" +
now.getFullYear()
alert(formattedDate)
```

edited Mar 23 at 11:44

Peter Mortensen

Peter Mortensen **14.3k** 19 88 116

answered Jul 21 '14 at 8:49





This is how I implemented for my npm plugins

13

```
var monthNames = [
  "January", "February", "March",
  "April", "May", "June", "July",
  "August", "September", "October",
  "November", "December"
1;
var Days = [
  "Sunday", "Monday", "Tuesday", "Wednesday",
  "Thursday", "Friday", "Saturday"
1;
var formatDate = function(dt,format){
 format = format.replace('ss', pad(dt.getSeconds(),2));
 format = format.replace('s', dt.getSeconds());
 format = format.replace('dd', pad(dt.getDate(),2));
  format = format.replace('d', dt.getDate());
  format = format.replace('mm', pad(dt.getMinutes(),2));
 format = format.replace('m', dt.getMinutes());
  format = format.replace('MMMM', monthNames[dt.getMonth()]);
  format = format.replace('MMM', monthNames[dt.getMonth()].substring(0,3));
  format = format.replace('MM', pad(dt.getMonth()+1,2));
  format = format.replace(/M(?![ao])/, dt.getMonth()+1);
 format = format.replace('DD', Days[dt.getDay()]);
 format = format.replace(/D(?!e)/, Days[dt.getDay()].substring(0,3));
```

```
format = format.replace('yyyy', dt.getFullYear());
format = format.replace('YYYY', dt.getFullYear());
format = format.replace('yy', (dt.getFullYear()+"").substring(2));
format = format.replace('YY', (dt.getFullYear()+"").substring(2));
format = format.replace('HH', pad(dt.getHours(),2));
format = format.replace('H', dt.getHours());
return format;
}

pad = function(n, width, z) {
    z = z || '0';
    n = n + '';
    return n.length >= width ? n : new Array(width - n.length + 1).join(z) + n;
}
```

edited Feb 23 '17 at 6:17

answered Jul 30 '16 at 16:58



Amit Kumar Gupta 4,084 9 48 72

Which package are you referring to? - Ibrahim Nov 2 '16 at 8:11

2 <u>date util</u> – Amit Kumar Gupta Nov 2 '16 at 9:35

This has a bug: Month names are replaced first, then the name of the month will be replaced as well. For example March will become 3arch with this code. — ntaso Feb 22 '17 at 9:41

1 Change line for 'M' to format = format.replace("M(?!M)", (dt.getMonth()+1).toString()); and put it above line with 'MMMM' — ntaso Feb 22 '17 at 9:46



13



More documentation at <u>developer.mozilla.org</u>



1 Should be noted that you should never ever, ever, use document.write(). Huge security and performance issues – Eugene Fidelin Feb 14 '18 at 15:39



This may help with the problem:

13

```
var d = new Date();

var options = {
    day: 'numeric',
    month: 'long',
    year: 'numeric'
};

console.log(d.toLocaleDateString('en-ZA', options));

Run code snippet

Expand snippet
```

```
var d = new Date();
var options = { day: 'numeric', month: 'long', year: 'numeric'};
d.toLocaleDateString('en-ZA', options);
```

edited Mar 23 at 11:48



Peter Mortensen **14.3k** 19 88 116

answered Jan 8 '18 at 10:27



Mr Nsubuga **174** 1 7

1 or d.toLocaleDateString('en-US', options); if you are in the USA. — BishopZ Jan 27'18 at 6:31

This was my solution. Thank you. - Steven Rogers Apr 5 at 19:05



var today = new Date();

9

var formattedToday = today.toLocaleDateString() + ' ' + today.toLocaleTimeString();



edited Jan 18 '17 at 20:22



Jeffrey Knight 4,612 5 33 45 answered Feb 9 '16 at 22:00





Sugar.js has excellent extensions to the Date object, including a <u>Date.format</u> method.

Q Examples from the documentation:



```
Date.create().format('{Weekday} {Month} {dd}, {yyyy}');
Date.create().format('{12hr}:{mm}{tt}')
```

edited May 18 '15 at 15:56



Peter Mortensen **14.3k** 19 88 116

answered Oct 22 '12 at 22:10



hasen

86.5k 60 170 213



For any one looking for a really simple ES6 solution to copy, paste and adopt:





const dateToString = d => `\${d.getFullYear()}-\${('00' + (d.getMonth() +
1)).slice(-2)}-\${('00' + d.getDate()).slice(-2)}`

// how to use:
const myDate = new Date(Date.parse('04 Dec 1995 00:12:00 GMT'))
console.log(dateToString(myDate)) // 1995-12-04

Expand snippet

edited Nov 26 '18 at 9:08

answered May 7 '18 at 15:00



Hinrich 8.335

8,335 3 23 42

Run code snippet



Add the jQuery UI plugin to your page:

4

function DateFormate(dateFormate, datetime) {
 return \$.datepicker.formatDate(dateFormate, datetime);
};

edited May 18 '15 at 15:55



answered Jun 29 '12 at 12:02



- 13 Don't add jQuery and jQuery UI just to format a date! Bennett McElwee Sep 9 '15 at 3:05
- 2 if you already using Jquery UI in your project it could be a good approach, but it seems you can only show the date portion, no hours, minutes or seconds A.Alqadomi Sep 21 '15 at 9:36
- why not plain jquery? \$.format.date(new Date(), 'yyyy-MM-dd HH:mm:ss') Alexander Feb 3 '16 at 13:25



Try this:

4

edited Mar 4 '17 at 22:28



answered Dec 31 '15 at 10:01



DateFormatter.formatDate(new Date(2010,7,10), 'DD-MMM-YYYY')



=> 10-Aug-2010



DateFormatter.formatDate(new Date(), 'YYYY-MM-DD HH:mm:ss')

```
=> 2017-11-22 19:52:37
```

DateFormatter.formatDate(new Date(2005, 1, 2, 3, 4, 5), 'D DD DDDD, M MM MMM MMMM, YY YYYY, h hh H HH, m mm, s ss, a A')

=> 2 02 Wed Wednesday, 2 02 Feb February, 05 2005, 3 03 3 03, 4 04, 5 05, am AM

```
var DateFormatter = {
  monthNames: [
    "January", "February", "March", "April", "May", "June",
    "July", "August", "September", "October", "November", "December"
 1,
  dayNames: ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday",
"Saturday"],
 formatDate: function (date, format) {
   var self = this;
   format = self.getProperDigits(format, /d+/gi, date.getDate());
   format = self.getProperDigits(format, /M+/g, date.getMonth() + 1);
   format = format.replace(/y+/gi, function (y) {
     var len = y.length;
     var year = date.getFullYear();
     if (len == 2)
       return (year + "").slice(-2);
     else if (len == 4)
       return year;
     return y;
   format = self.getProperDigits(format, /H+/g, date.getHours());
   format = self.getProperDigits(format, /h+/g, self.getHours12(date.getHours()));
   format = self.getProperDigits(format, /m+/g, date.getMinutes());
   format = self.getProperDigits(format, /s+/gi, date.getSeconds());
   format = format.replace(/a/ig, function (a) {
     var amPm = self.getAmPm(date.getHours())
     if (a === 'A')
       return amPm.toUpperCase();
     return amPm;
   format = self.getFullOr3Letters(format, /d+/gi, self.dayNames, date.getDay())
```

```
format = self.getFullOr3Letters(format, /M+/g, self.monthNames, date.getMonth())
    return format;
  },
  getProperDigits: function (format, regex, value) {
    return format.replace(regex, function (m) {
      var length = m.length;
      if (length == 1)
        return value;
      else if (length == 2)
        return ('0' + value).slice(-2);
      return m;
   })
  },
  getHours12: function (hours) {
   // https://stackoverflow.com/questions/10556879/changing-the-1-24-hour-to-1-12-hour-
for-the-gethours-method
    return (hours + 24) % 12 | 12;
  },
  getAmPm: function (hours) {
    // https://stackoverflow.com/questions/8888491/how-do-you-display-javascript-
datetime-in-12-hour-am-pm-format
    return hours >= 12 ? 'pm' : 'am';
 },
  getFullOr3Letters: function (format, regex, nameArray, value) {
    return format.replace(regex, function (s) {
      var len = s.length;
      if (len == 3)
        return nameArray[value].substr(0, 3);
      else if (len == 4)
       return nameArray[value];
      return s;
   })
  }
console.log(DateFormatter.formatDate(new Date(), 'YYYY-MM-DD HH:mm:ss'));
console.log(DateFormatter.formatDate(new Date(), 'D DD DDD DDDD, M MM MMMM MMMM, YY YYYY,
h hh H HH, m mm, s ss, a A'));
console.log(DateFormatter.formatDate(new Date(2005, 1, 2, 3, 4, 5), 'D DD DDD DDDD, M MM
MMM MMMM, YY YYYY, h hh H HH, m mm, s ss, a A'));
                          Expand snippet
   Run code snippet
```

The format description was taken from **lonic Framework** (it does not support z, UTC Timezone Offset)

Not thoroughly tested

edited Mar 23 at 11:46

Peter Mortensen

14.3k 19 88 116

answered Nov 22 '17 at 14:24

amit77309 **4,290** 3 12 21

1 2 next