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body-parser

1.19.0 • Public • Published a year ago

Readme

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10 Dependencies

18,173 Dependents

65 Versions

Install

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```

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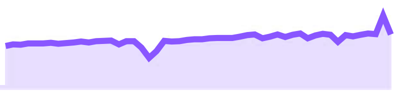

Version	License
1.19.0	MIT
Unpacked Size	Total Files
56.4 kB	10

Issues

15

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Homepage

github.com/expressjs/body-parser#readme

Repository

github.com/expressjs/body-parser

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body-parser

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Node.js body parsing middleware.

Parse incoming request bodies in a middleware before your handlers, available under the `req.body` property.

Note As `req.body` 's shape is based on user-controlled input, all properties and values in this object are untrusted and should be validated before trusting. For example, `req.body.foo.toString()` may fail in multiple ways, for example the `foo` property

may not be there or may not be a string, and `toString` may not be a function and instead a string or other user input.

Learn about the anatomy of an HTTP transaction in Node.js.

Learn about the anatomy of an HTTP transaction in Node.js.

This does not handle multipart bodies, due to their complex and typically large nature. For multipart bodies, you may be interested in the following modules:

- busboy and connect-busboy
- multiparty and connect-multiparty
- formidable
- multer

This module provides the following parsers:

- JSON body parser
- Raw body parser
- Text body parser
- URL-encoded form body parser

Other body parsers you might be interested in:

- body
- co-body

Installation

```
$ npm install body-parser
```

API

```
var bodyParser = require('body-parser')
```

The `bodyParser` object exposes various factories to create middlewares. All middlewares will populate the `req.body` property with the parsed body when the `Content-Type` request header matches the `type` option, or an empty object (`{}`) if there was no body to parse, the `Content-Type` was not matched, or an error occurred.

The various errors returned by this module are described in the **errors section**.

bodyParser.json([options])

Returns middleware that only parses `json` and only looks at requests where the

Content-Type header matches the type option. This parser accepts any Unicode encoding of the body and supports automatic inflation of gzip and deflate encodings.

A new body object containing the parsed data is populated on the request object after the middleware (i.e. req.body).

Options

The json function takes an optional options object that may contain any of the following keys:

inflate

When set to true , then deflated (compressed) bodies will be inflated; when false , deflated bodies are rejected. Defaults to true .

limit

Controls the maximum request body size. If this is a number, then the value specifies the number of bytes; if it is a string, the value is passed to the **bytes** library for parsing. Defaults to '100kb' .

reviver

The reviver option is passed directly to JSON.parse as the second argument. You can find more information on this argument **in the MDN documentation about JSON.parse**.

strict

When set to true , will only accept arrays and objects; when false will accept anything JSON.parse accepts. Defaults to true .

type

The type option is used to determine what media type the middleware will parse. This option can be a string, array of strings, or a function. If not a function, type option is passed directly to the **type-is** library and this can be an extension name (like json), a mime type (like application/json), or a mime type with a wildcard (like */* or */json). If a function, the type option is called as fn(req) and the request is parsed if it returns a truthy value. Defaults to application/json .

verify

The verify option, if supplied, is called as verify(req, res, buf, encoding) , where buf is a Buffer of the raw request body and encoding is the encoding of the request. The parsing can be aborted by throwing an error.

bodyParser.raw([options])

Returns middleware that parses all bodies as a `Buffer` and only looks at requests where the `Content-Type` header matches the `type` option. This parser supports automatic inflation of `gzip` and `deflate` encodings.

A new `body` object containing the parsed data is populated on the `request` object after the middleware (i.e. `req.body`). This will be a `Buffer` object of the body.

Options

The `raw` function takes an optional `options` object that may contain any of the following keys:

inflate

When set to `true` , then deflated (compressed) bodies will be inflated; when `false` , deflated bodies are rejected. Defaults to `true` .

limit

Controls the maximum request body size. If this is a number, then the value specifies the number of bytes; if it is a string, the value is passed to the **bytes** library for parsing. Defaults to `'100kb'` .

type

The `type` option is used to determine what media type the middleware will parse. This option can be a string, array of strings, or a function. If not a function, `type` option is passed directly to the **type-is** library and this can be an extension name (like `bin`), a mime type (like `application/octet-stream`), or a mime type with a wildcard (like `*/*` or `application/*`). If a function, the `type` option is called as `fn(req)` and the request is parsed if it returns a truthy value. Defaults to `application/octet-stream` .

verify

The `verify` option, if supplied, is called as `verify(req, res, buf, encoding)` , where `buf` is a `Buffer` of the raw request body and `encoding` is the encoding of the request. The parsing can be aborted by throwing an error.

bodyParser.text([options])

Returns middleware that parses all bodies as a string and only looks at requests where the `Content-Type` header matches the `type` option. This parser supports automatic inflation of `gzip` and `deflate` encodings.

A new `body` string containing the parsed data is populated on the `request` object after the middleware (i.e. `req.body`). This will be a string of the body.

Options

The `text` function takes an optional `options` object that may contain any of the following keys:

defaultCharset

Specify the default character set for the text content if the charset is not specified in the `Content-Type` header of the request. Defaults to `utf-8` .

inflate

When set to `true` , then deflated (compressed) bodies will be inflated; when `false` , deflated bodies are rejected. Defaults to `true` .

limit

Controls the maximum request body size. If this is a number, then the value specifies the number of bytes; if it is a string, the value is passed to the **bytes** library for parsing. Defaults to `'100kb'` .

type

The `type` option is used to determine what media type the middleware will parse. This option can be a string, array of strings, or a function. If not a function, `type` option is passed directly to the **type-is** library and this can be an extension name (like `txt`), a mime type (like `text/plain`), or a mime type with a wildcard (like `*/*` or `text/*`). If a function, the `type` option is called as `fn(req)` and the request is parsed if it returns a truthy value. Defaults to `text/plain` .

verify

The `verify` option, if supplied, is called as `verify(req, res, buf, encoding)` , where `buf` is a `Buffer` of the raw request body and `encoding` is the encoding of the request. The parsing can be aborted by throwing an error.

bodyParser.urlencoded([options])

Returns middleware that only parses `urlencoded` bodies and only looks at requests where the `Content-Type` header matches the `type` option. This parser accepts only UTF-8 encoding of the body and supports automatic inflation of `gzip` and `deflate` encodings.

A new `body` object containing the parsed data is populated on the `request` object after the middleware (i.e. `req.body`). This object will contain key-value pairs, where the value can be a string or array (when `extended` is `false`), or any type (when `extended` is `true`).

Options

The `urlencoded` function takes an optional `options` object that may contain any of the following keys:

extended

The `extended` option allows to choose between parsing the URL-encoded data with the `querystring` library (when `false`) or the `qs` library (when `true`). The "extended" syntax allows for rich objects and arrays to be encoded into the URL-encoded format, allowing for a JSON-like experience with URL-encoded. For more information, please see the qs library.

Defaults to `true` , but using the default has been deprecated. Please research into the difference between `qs` and `querystring` and choose the appropriate setting.

inflate

When set to `true` , then deflated (compressed) bodies will be inflated; when `false` , deflated bodies are rejected. Defaults to `true` .

limit

Controls the maximum request body size. If this is a number, then the value specifies the number of bytes; if it is a string, the value is passed to the bytes library for parsing. Defaults to `'100kb'` .

parameterLimit

The `parameterLimit` option controls the maximum number of parameters that are allowed in the URL-encoded data. If a request contains more parameters than this value, a 413 will be returned to the client. Defaults to `1000` .

type

The `type` option is used to determine what media type the middleware will parse. This option can be a string, array of strings, or a function. If not a function, `type` option is passed directly to the type-is library and this can be an extension name (like

`urlencoded`), a mime type (like `application/x-www-form-urlencoded`), or a mime type with a wildcard (like `*/x-www-form-urlencoded`). If a function, the `type` option is called as `fn(req)` and the request is parsed if it returns a truthy value. Defaults to `application/x-www-form-urlencoded`.

verify

The `verify` option, if supplied, is called as `verify(req, res, buf, encoding)`, where `buf` is a `Buffer` of the raw request body and `encoding` is the encoding of the request. The parsing can be aborted by throwing an error.

Errors

The middlewares provided by this module create errors depending on the error condition during parsing. The errors will typically have a `status`/`statusCode` property that contains the suggested HTTP response code, an `expose` property to determine if the `message` property should be displayed to the client, a `type` property to determine the type of error without matching against the `message`, and a `body` property containing the read body, if available.

The following are the common errors emitted, though any error can come through for various reasons.

content encoding unsupported

This error will occur when the request had a `Content-Encoding` header that contained an encoding but the "inflation" option was set to `false`. The `status` property is set to `415`, the `type` property is set to `'encoding.unsupported'`, and the `charset` property will be set to the encoding that is unsupported.

request aborted

This error will occur when the request is aborted by the client before reading the body has finished. The `received` property will be set to the number of bytes received before the request was aborted and the `expected` property is set to the number of expected bytes. The `status` property is set to `400` and `type` property is set to `'request.aborted'`.

request entity too large

This error will occur when the request body's size is larger than the "limit" option. The `limit` property will be set to the byte limit and the `length` property will be set to the request body's length. The `status` property is set to `413` and the `type` property is set to `'entity.too.large'`.

request size did not match content length

This error will occur when the request's length did not match the length from the `Content-Length` header. This typically occurs when the request is malformed, typically when the `Content-Length` header was calculated based on characters instead of bytes. The `status` property is set to `400` and the `type` property is set to `'request.size.invalid'` .

stream encoding should not be set

This error will occur when something called the `req.setEncoding` method prior to this middleware. This module operates directly on bytes only and you cannot call `req.setEncoding` when using this module. The `status` property is set to `500` and the `type` property is set to `'stream.encoding.set'` .

too many parameters

This error will occur when the content of the request exceeds the configured `parameterLimit` for the `urlencoded` parser. The `status` property is set to `413` and the `type` property is set to `'parameters.too.many'` .

unsupported charset "BOGUS"

This error will occur when the request had a charset parameter in the `Content-Type` header, but the `iconv-lite` module does not support it OR the parser does not support it. The charset is contained in the message as well as in the `charset` property. The `status` property is set to `415` , the `type` property is set to `'charset.unsupported'` , and the `charset` property is set to the charset that is unsupported.

unsupported content encoding "bogus"

This error will occur when the request had a `Content-Encoding` header that contained an unsupported encoding. The encoding is contained in the message as well as in the `encoding` property. The `status` property is set to `415` , the `type` property is set to `'encoding.unsupported'` , and the `encoding` property is set to the encoding that is unsupported.

Examples

Express/Connect top-level generic

This example demonstrates adding a generic JSON and URL-encoded parser as a top-level middleware, which will parse the bodies of all incoming requests. This is the simplest setup.

```
var express = require('express')
var bodyParser = require('body-parser')

var app = express()

// parse application/x-www-form-urlencoded
app.use(bodyParser.urlencoded({ extended: false }))

// parse application/json
app.use(bodyParser.json())

app.use(function (req, res) {
  res.setHeader('Content-Type', 'text/plain')
  res.write('you posted:\n')
  res.end(JSON.stringify(req.body, null, 2))
})
```

Express route-specific

This example demonstrates adding body parsers specifically to the routes that need them. In general, this is the most recommended way to use body-parser with Express.

```
var express = require('express')
var bodyParser = require('body-parser')

var app = express()

// create application/json parser
var jsonParser = bodyParser.json()

// create application/x-www-form-urlencoded parser
var urlencodedParser = bodyParser.urlencoded({ extended: false })


// POST /login gets urlencoded bodies
app.post('/login', urlencodedParser, function (req, res) {
  res.send('welcome, ' + req.body.username)
})

// POST /api/users gets JSON bodies
app.post('/api/users', jsonParser, function (req, res) {
  // create user in req.body
})
```

Change accepted type for parsers

All the parsers accept a `type` option which allows you to change the `Content-Type` that the middleware will parse.

```
var express = require('express')
var bodyParser = require('body-parser')

var app = express()

// parse various different custom JSON types as JSON
app.use(bodyParser.json({ type: 'application/*+json' }))

// parse some custom thing into a Buffer
app.use(bodyParser.raw({ type: 'application/vnd.custom-type' }))

// parse an HTML body into a string
app.use(bodyParser.text({ type: 'text/html' }))
```

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