

readlineSync

```
npm v1.4.10 issues 0 open dependencies No dependency license MIT
```

Synchronous **Readline** for interactively running to have a conversation with the user via a console(TTY).

readlineSync tries to let your script have a conversation with the user via a console, even when the input/output stream is redirected like your-script <foo.dat >bar.log.

```
Basic Options Utility Methods Placeholders
```

• Simple case:

```
var readlineSync = require('readline-sync');
```

```
// Wait for user's response.
 var userName = readlineSync.question('May I have your name? ');
 console.log('Hi ' + userName + '!');
 // Handle the secret text (e.g. password).
 var favFood = readlineSync.question('What is your favorite food? ', {
   hideEchoBack: true // The typed text on screen is hidden by `*` (def
 });
 console.log('Oh, ' + userName + ' loves ' + favFood + '!');
 May I have your name? CookieMonster
 Hi CookieMonster!
 What is your favorite food? ****
 Oh, CookieMonster loves tofu!
• Get the user's response by a single key without the Enter key:
 var readlineSync = require('readline-sync');
 if (readlineSync.keyInYN('Do you want this module?')) {
   // 'Y' key was pressed.
   console.log('Installing now...');
   // Do something...
 } else {
   // Another key was pressed.
   console.log('Searching another...');
   // Do something...
 }
• Let the user choose an item from a list:
 var readlineSync = require('readline-sync'),
   animals = ['Lion', 'Elephant', 'Crocodile', 'Giraffe', 'Hippo'],
```

```
index = readlineSync.keyInSelect(animals, 'Which animal?');
 console.log('Ok, ' + animals[index] + ' goes to your room.');
 [1] Lion
 [2] Elephant
 [3] Crocodile
 [4] Giraffe
 [5] Hippo
 [0] CANCEL
 Which animal? [1...5 / 0]: 2
 Ok, Elephant goes to your room.
• An UI like the Range Slider:
 (Press Z or X key to change a value, and Space Bar to exit)
 var readlineSync = require('readline-sync'),
   MAX = 60, MIN = 0, value = 30, key;
 console.log('\n\n' + (new Array(20)).join(' ') +
   '[Z] <- -> [X] FIX: [SPACE]\n');
 while (true) {
   console.log('\x1B[1A\x1B[K|' +
     (new Array(value + 1)).join('-') + '0' +
     key = readlineSync.keyIn('',
     {hideEchoBack: true, mask: '', limit: 'zx '});
   if (key === 'z') { if (value > MIN) { value--; } }
   else if (key === 'x') { if (value < MAX) { value++; } }</pre>
   else { break; }
 }
 console.log('\nA value the user requested: ' + value);
```

```
[Z] <- -> [X] FIX: [SPACE]
|------| 30
```

• Handle the commands repeatedly, such as the shell interface:

```
readlineSync.promptCLLoop({
  add: function(target, into) {
    console.log(target + ' is added into ' + into + '.');
   // Do something...
  },
  remove: function(target) {
    console.log(target + ' is removed.');
    // Do something...
  },
  bye: function() { return true; }
});
console.log('Exited');
> add pic01.png archive
pic01.png is added into archive.
> delete pic01.png
Requested command is not available.
> remove pic01.png
pic01.png is removed.
> bye
Exited
```

Installation

```
npm install readline-sync
```

Quick Start

How does the user input?

- Type a reply to a question, and press the Enter key (A)
- Type a keyword like a command in prompt, and press the Enter key (B)
- Press a single key without the Enter key (C)

(A) What does the user input?

- E-mail address
- New password
- Integer number
- Floating-point number
- Local file/directory path
- Others

(B) What does your script do?

- Receive a parsed command-name and arguments
- Receive an input repeatedly
- Receive a parsed command-name and arguments repeatedly
- Receive an input with prompt that is similar to that of the user's shell
- Others

(C) What does the user do?

- Say "Yes" or "No"
- Say "Yes" or "No" explicitly
- Make the running of script continue when ready
- Choose an item from a list
- Others

Basic Methods

These are used to control details of the behavior. It is recommended to use the **Utility**Methods instead of Basic Methods if it satisfy your request.

question

```
answer = readlineSync.question([query[, options]])
```

Display a query to the user if it's specified, and then return the input from the user after it has been typed and the Enter key was pressed.

You can specify an options (see **Basic Options**) to control the behavior (e.g. refusing unexpected input, avoiding trimming white spaces, etc.). **If you let the user input the secret text (e.g. password)**, **you should consider hideEchoBack option**.

The query may be string, or may not be (e.g. number, Date, Object, etc.). It is converted to string (i.e. toString method is called) before it is displayed. (see **Note** also) It can include the **placeholders**.

For example:

```
program = readlineSync.question('Which program starts do you want? ',
   defaultInput: 'firefox'
});
```

prompt

```
input = readlineSync.prompt([options])
```

Display a prompt-sign (see **prompt** option) to the user, and then return the input from the user after it has been typed and the Enter key was pressed.

You can specify an options (see **Basic Options**) to control the behavior (e.g. refusing unexpected input, avoiding trimming white spaces, etc.).

```
while (true) {
```

```
command = readlineSync.prompt();
// Do something...
}
```

keyIn

```
pressedKey = readlineSync.keyIn([query[, options]])
```

Display a query to the user if it's specified, and then return a character as a key immediately it was pressed by the user, **without pressing the Enter key**. Note that the user has no chance to change the input.

You can specify an options (see **Basic Options**) to control the behavior (e.g. ignoring keys except some keys, checking target key, etc.).

The query is handled the same as that of the question method.

For example:

```
menuId = readlineSync.keyIn('Hit 1...5 key: ', {limit: '$<1-5>'});
```

setDefaultOptions

```
currentDefaultOptions = readlineSync.setDefaultOptions([newDefaultOpti
```

Change the **Default Options** to the values of properties of newDefaultOptions Object. All it takes is to specify options that you want change, because unspecified options are not updated.

Basic Options

```
prompt, hideEchoBack, mask, limit, limitMessage, defaultInput,
trueValue, falseValue, caseSensitive, keepWhitespace, encoding,
bufferSize, print, history, cd
```

An options Object can be specified to the methods to control the behavior of readlineSync. The options that were not specified to the methods are got from the Default Options. You can change the Default Options by **setDefaultOptions** method anytime, and it is kept until a current process is exited.

Specify the options that are often used to the Default Options, and specify temporary options to the methods.

For example:

```
readlineSync.setDefaultOptions({limit: ['green', 'yellow', 'red']});
a1 = readlineSync.question('Which color of signal? '); // Input is lin
a2 = readlineSync.question('Which color of signal? '); // It's limitec
a3 = readlineSync.question('What is your favorite color? ', {limit: nu
a4 = readlineSync.question('Which color of signal? '); // It's limitec
readlineSync.setDefaultOptions({limit: ['beef', 'chicken']});
a5 = readlineSync.question('Beef or Chicken? '); // Input is li
a6 = readlineSync.question('And you? '); // It's limite
```

The Object as options can have following properties.

prompt

```
For prompt* methods only

Type: string or others

Default: '> '
```

Set the prompt-sign that is displayed to the user by prompt* methods. For example you see > that is Node.js's prompt-sign when you run node on the command line.

This may be string, or may not be (e.g. number, Date, Object, etc.). It is converted to string every time (i.e. toString method is called) before it is displayed. (see Note also)

It can include the placeholders.

```
readlineSync.setDefaultOptions({prompt: '$ '});
```

```
// Display the memory usage always.
readlineSync.setDefaultOptions({
  prompt: { // Simple Object that has toString method.
    toString: function() {
    var rss = process.memoryUsage().rss;
    return '[' + (rss > 1024 ? Math.round(rss / 1024) + 'k' : rss) + }
  }
});

[13148kb]$ foo
[13160kb]$ bar
[13200kb]$
```

hideEchoBack

Type: boolean *Default:* false

If true is specified, hide the secret text (e.g. password) which is typed by user on screen by the mask characters (see mask option).

For example:

```
password = readlineSync.question('PASSWORD: ', {hideEchoBack: true});
console.log('Login ...');

PASSWORD: *******
Login ...
```

mask

```
Type: string

Default: '*'
```

Note: In some cases (e.g. when the input stream is redirected on Windows XP), '*' or '' might be used whether other one is specified.

For example:

```
secret = readlineSync.question('Please whisper sweet words: ', {
  hideEchoBack: true,
  mask: require('chalk').magenta('\u2665')
});
```

Please whisper sweet words:

limit

Limit the user's input.

The usage differ depending on the method.

For question* and prompt* methods

```
Type: string, number, RegExp, function or Array Default: []
```

Accept only the input that matches value that is specified to this. If the user input others, display a string that is specified to limitMessage option, and wait for reinput.

- The string is compared with the input. It is affected by caseSensitive option.
- The number is compared with the input that is converted to number by parseFloat(). For example, it interprets ' 3.14 ', '003.1400', '314e-2' and '3.14PI' as 3.14. And it interprets '005', '5files', '5kb' and '5px' as 5.
- The RegExp tests the input.
- The function that returns a boolean to indicate whether it matches is called with the input.

One of above or an Array that includes multiple things (or Array includes Array) can be specified.

For example:

```
command = readlineSync.prompt({limit: ['add', 'remove', /clear( all)?/
// ** But `promptCL` method should be used instead of this. **
file = readlineSync.question('Text File: ', {limit: /\.txt/i});
 // ** But `questionPath` method should be used instead of this. **
 ip = readlineSync.question('IP Address: ', {limit: function(input) {
   return require('net').isIP(input); // Valid IP Address
 }});
 availableActions = [];
 if (!blockExists()) { availableActions.push('jump'); }
 if (isLarge(place)) { availableActions.push('run'); }
 if (isNew(shoes)) { availableActions.push('kick'); }
 if (isNearby(enemy)) { availableActions.push('punch'); }
 action = readlineSync.prompt({limit: availableActions});
 // ** But `promptCL` method should be used instead of this. **
```

For keyIn* method

```
Type: string, number or Array

Default: []
```

Accept only the key that matches value that is specified to this, ignore others.

Specify the characters as the key. All strings or Array of those are decomposed into single characters. For example, 'abcde' or ['a', 'bc', ['d', 'e']] are the same as

```
['a', 'b', 'c', 'd', 'e'].
```

These strings are compared with the input. It is affected by **caseSensitive** option.

The placeholders like '\$<a-e>' are replaced to an Array that is the character list like ['a', 'b', 'c', 'd', 'e'].

For example:

limitMessage

```
For question* and prompt* methods only
Type: string
Default: 'Input another, please.$<( [)limit(])>'
```

Display this to the user when the **limit** option is specified and the user input others. The **placeholders** can be included.

For example:

```
file = readlineSync.question('Name of Text File: ', {
   limit: /\.txt/i,
   limitMessage: 'Sorry, $<lastInput> is not text file.'
});
```

defaultInput

```
For question* and prompt* methods only

Type: string

Default: ''
```

If the user input empty text (i.e. pressed the Enter key only), return this.

For example:

```
lang = readlineSync.question('Which language? ', {defaultInput: 'javas
```

trueValue, falseValue

```
Type: string, number, RegExp, function or Array Default: []
```

If the input matches trueValue, return true. If the input matches falseValue, return false. In any other case, return the input.

- The string is compared with the input. It is affected by caseSensitive option.
- The number is compared with the input that is converted to number by parseFloat(). For example, it interprets ' 3.14 ', '003.1400', '314e-2' and '3.14PI' as 3.14. And it interprets '005', '5files', '5kb' and '5px' as 5. Note that in keyIn* method, the input is every time one character (i.e. the number that is specified must be an integer within the range of 0 to 9).
- The RegExp tests the input.
- The function that returns a boolean to indicate whether it matches is called with the input.

One of above or an Array that includes multiple things (or Array includes Array) can be specified.

```
answer = readlineSync.question('How do you like it? ', {
   trueValue: ['yes', 'yeah', 'yep'],
   falseValue: ['no', 'nah', 'nope']
});
if (answer === true) {
   console.log('Let\'s go!');
} else if (answer === false) {
   console.log('Oh... It\'s ok...');
} else {
   console.log('Sorry. What does "' + answer + '" you said mean?');
```

}

caseSensitive

Type: boolean *Default:* false

By default, the string comparisons are case-insensitive (i.e. a equals A). If true is specified, it is case-sensitive, the cases are not ignored (i.e. a is different from A). It affects: limit, trueValue, falseValue, some placeholders, and some Utility Methods.

keepWhitespace

For question* and prompt* methods only

Type: boolean *Default:* false

By default, remove the leading and trailing white spaces from the input text. If true is specified, don't remove those.

encoding

Type: string

Default: 'utf8'

Set the encoding method of the input and output.

bufferSize

For question* and prompt* methods only

Type: number

Default: 1024

When readlineSync reads from a console directly (without **external program**), use a size bufferSize buffer.

Even if the input by user exceeds it, it's usually no problem, because the buffer is used repeatedly. But some platforms's (e.g. Windows) console might not accept input that exceeds it. And set an enough size.

Note that this might be limited by **version of Node.js** and environment running your script (Big buffer size is usually not required). (See also: **issue**, **PR**)

print

Type: function or undefined

Default: undefined

Call the specified function with every output. The function is given two arguments, display as an output text, and a value of **encoding** option.

For example:

• Pass the plain texts to the Logger (e.g. log4js), after clean the colored texts.

```
Your Account
USER NAME :AnSeki
PASSWORD :******
Welcome, AnSeki!
> setup
```

```
var readlineSync = require('readline-sync'),
  chalk = require('chalk'),
  log4js = require('log4js'),
  logger, user, pw, command;

log4js.configure({appenders: [{type: 'file', filename: 'fooApp.log'}]}
logger = log4js.getLogger('fooApp');

readlineSync.setDefaultOptions({
  print: function(display, encoding)
      { logger.info(chalk.stripColor(display)); }, // Remove ctrl-chars.
  prompt: chalk.red.bold('> ')
});

console.log(chalk.black.bold.bgYellow(' Your Account '));
```

• Output a conversation to a file when an output stream is redirected to record those into a file like your-script >foo.log. That is, a conversation isn't outputted to foo.log without this code.

```
readlineSync.setDefaultOptions({
   print: function(display, encoding)
      { process.stdout.write(display, encoding); }
});

var name = readlineSync.question('May I have your name? ');

var loc = readlineSync.question('Hi ' + name + '! Where do you live? '
```

Let somebody hear our conversation in real time.
 It just uses a fifo with above sample code that was named conv.js.

Another terminal:

```
mkfifo /tmp/fifo
cat /tmp/fifo

My terminal:
```

```
May I have your name? Oz
Hi Oz! Where do you live? Emerald City
```

node conv.js >/tmp/fifo

And then, another terminal shows this synchronously:

```
May I have your name? Oz
Hi Oz! Where do you live? Emerald City
```

history

```
For question* and prompt* methods only
Type: boolean
Default: true
```

readlineSync supports a history expansion feature that is similar to that of the shell. If false is specified, disable this feature.

It keeps a previous input only. That is, only !!, !-1, !!:p and !-1:p like bash or zsh etc. are supported.

- !! or !-1: Return a previous input.
- !!:p or !-1:p: Display a previous input but do not return it, and wait for reinput.

```
while (true) {
   input = readlineSync.prompt();
   console.log('-- You said "' + input + '"');
}

> hello
-- You said "hello"
> !!
hello
-- You said "hello"
> !!:p
hello
> bye
```

```
-- You said "bye"
```

cd

```
For question* and prompt* methods only
Type: boolean
Default: false
```

readlineSync supports the changing the current working directory feature that is similar to the cd and pwd commands in the shell. If true is specified, enable this feature.

This helps the user when you let the user input the multiple local files or directories.

It supports cd and pwd commands.

- cd <path>: Change the current working directory to <path>. The <path> can include ~ as the home directory.
- pwd : Display the current working directory.

When these were input, do not return, and wait for reinput.

```
while (true) {
    file = readlineSync.questionPath('File: ');
    console.log('-- Specified file is ' + file);
}

File: cd foo-dir/bar-dir

File: pwd
/path/to/foo-dir/bar-dir

File: file-a.js
-- Specified file is /path/to/foo-dir/bar-dir/file-a.js

File: file-b.png
-- Specified file is /path/to/foo-dir/bar-dir/file-b.png
File: file-c.html
-- Specified file is /path/to/foo-dir/bar-dir/file-c.html
```

Utility Methods

```
questionEMail, questionNewPassword, questionInt, questionFloat,
questionPath, promptCL, promptLoop, promptCLLoop, promptSimShell,
keyInYN, keyInYNStrict, keyInPause, keyInSelect
```

These are convenient methods that are extended **Basic Methods** to be used easily.

questionEMail

```
email = readlineSync.questionEMail([query[, options]])
```

Display a query to the user if it's specified, and then accept only a valid e-mail address, and then return it after the Enter key was pressed.

The query is handled the same as that of the **question** method. The default value of query is 'Input e-mail address: '.

Note: The valid e-mail address requirement is a willful violation of **RFC5322**, this is defined in **HTML5**. This works enough to prevent the user mistaking. If you want to change it, specify **limit** option.

For example:

```
email = readlineSync.questionEMail();
console.log('-- E-mail is ' + email);

Input e-mail address: abc

Input valid e-mail address, please.

Input e-mail address: mail@example.com
-- E-mail is mail@example.com
```

Options

The following options have independent default value that is not affected by **Default Options**.

Option Name	Default Value	
hideEchoBack	false	
limit	RegExp by HTML5	
limitMessage	'Input valid e-mail address, please.'	
trueValue	null	
falseValue	null	

The following options work as shown in the **Basic Options** section.

mask	defaultInput	caseSensitive	encoding	bufferS
print	history			
4				

questionNewPassword

password = readlineSync.questionNewPassword([query[, options]])

Display a query to the user if it's specified, and then accept only a valid password, and then request same one again, and then return it after the Enter key was pressed.

It's the password, or something that is the secret text like the password.

You can specify the valid password requirement to the options.

The query is handled the same as that of the **question** method.

The default value of query is 'Input new password: '.

Note: Only the form of password is checked. Check it more if you want. For example, **zxcvbn** is password strength estimation library.

Options

The following options have independent default value that is not affected by **Default**Options.

Option Name	Default Value
hideEchoBack	true
mask	* 1
limitMessage	'It can include: \$ <charlist>\nAnd the length must be: \$<length>'</length></charlist>
trueValue	null
falseValue	null
caseSensitive	true

The following options work as shown in the **Basic Options** section.

defaultInput	keepWhitespace	encoding	bufferSize	р
4				

And the following additional options are available.

charlist

Type: string

Default: '\$<!-~>'

A string as the characters that can be included in the password. For example, if 'abc123' is specified, the passwords that include any character other than these 6 characters are refused.

The placeholders like '\$<a-e>' are replaced to the characters like 'abcde'.

For example, let the user input a password that is created with alphabet and some symbols:

```
password = readlineSync.questionNewPassword('PASSWORD: ', {charlist: '
```

min, max

Type: number

Default: min: 12, max: 24

min: A number as a minimum length of the password.

max: A number as a maximum length of the password.

confirmMessage

Type: string or others

Default: 'Reinput a same one to confirm it: '

A message that lets the user input the same password again.

It can include the **placeholders**.

If this is not string, it is converted to string (i.e. toString method is called).

unmatchMessage

Type: string or others

Default: 'It differs from first one. Hit only the Enter key if you want to retry from first one.'

A warning message that is displayed when the second input did not match first one.

This is converted the same as the **confirmMessage** option.

Additional Placeholders

The following additional placeholder parameters are available.

charlist

A current value of **charlist** option that is converted to human readable if possible. (e.g. 'A...Z')

length

A current value of **min and max** option that is converted to human readable. (e.g. '12...24')

questionInt

```
numInt = readlineSync.questionInt([query[, options]])
```

Display a query to the user if it's specified, and then accept only an input that can be interpreted as an integer, and then return the number (not string) after the Enter key was pressed.

This parses the input as much as possible by parseInt(). For example, it interprets ' 5 ', '5.6', '005', '5files', '5kb' and '5px' as 5.

The query is handled the same as that of the **question** method.

Options

The following option has independent default value that is not affected by **Default Options**.

Option Name	Default Value
limitMessage	'Input valid number, please.'

The following options work as shown in the **Basic Options** section.

hideEchoBack	mask	defaultInput	encoding	buffer

print	history
-------	---------

questionFloat

```
numFloat = readlineSync.questionFloat([query[, options]])
```

Display a query to the user if it's specified, and then accept only an input that can be interpreted as a floating-point number, and then return the number (not string) after the Enter key was pressed.

This parses the input as much as possible by parseFloat(). For example, it interprets ' 3.14', '003.1400', '314e-2' and '3.14PI' as 3.14.

The query is handled the same as that of the question method.

Options

The following option has independent default value that is not affected by **Default Options**.

Option Name	Default Value
limitMessage	'Input valid number, please.'

The following options work as shown in the **Basic Options** section.

hideEchoBack	mask	defaultInput	encoding	buffer
print	history			
4				

questionPath

```
path = readlineSync.questionPath([query[, options]])
```

Display a query to the user if it's specified, and then accept only a valid local file or directory path, and then return an absolute path after the Enter key was pressed.

The ~ that is input by the user is replaced to the home directory.

You can specify the valid local file or directory path requirement to the options. And you can make it create a new file or directory when it doesn't exist. It is recommended to use this method with the cd option. (Default: true) The query is handled the same as that of the question method. The default value of query is 'Input path (you can "cd" and "pwd"): '. For example: sourceFile = readlineSync.questionPath('Read from: ', { isFile: true }); console.log('-- sourceFile: ' + sourceFile); saveDir = readlineSync.questionPath('Save to: ', { isDirectory: true, exists: null, create: true }); console.log('-- saveDir: ' + saveDir); Read from: ~/fileA No such file or directory: /home/user/fileA Input valid path, please. Read from: pwd /path/to/work Read from: cd ~/project-1 Read from: fileA -- sourceFile: /home/user/project-1/fileA Save to: ~/deploy/data

Options

-- saveDir: /home/user/deploy/data

The following options have independent default value that is not affected by **Default Options**.

Option Name	Default Value
hideEchoBack	false
limitMessage	<pre>'\$<error(\n)>Input valid path, please.\$<(Min:)min>\$<(Max:)max>'</error(\n)></pre>
history	true
cd	true

The following options work as shown in the **Basic Options** section.

mask defaultInput encoding bufferSize prim	mask	defaultInput	encoding	bufferSize	print
--	------	--------------	----------	------------	-------

And the following additional options are available.

Note: It does not check the coherency about a combination of the options as the path requirement. For example, the {exists: false, isFile: true} never check that it is a file because it is limited to the path that does not exist.

exists

Type: boolean or others

Default: true

If true is specified, accept only a file or directory path that exists. If false is specified, accept only a file or directory path that does *not* exist.

In any other case, the existence is not checked.

min, max

Type: number or others

Default: undefined

min: A number as a minimum size of the file that is accepted.

max: A number as a maximum size of the file that is accepted.

If it is not specified or 0 is specified, the size is not checked. (A size of directory is 0.)

isFile, isDirectory

Type: boolean *Default:* false

isFile: If true is specified, accept only a file path.

isDirectory: If true is specified, accept only a directory path.

validate

Type: function or undefined

Default: undefined

If a function that returns true or an error message is specified, call it with a path that was input, and accept the input when the function returned true.

If the function returned a string as an error message, that message is got by the **error** additional **placeholder** parameter.

A path that was input is parsed before it is passed to the function. ~ is replaced to a home directory, and a path is converted to an absolute path.

This is also a return value from this method.

For example, accept only PNG file or tell it to the user:

```
imageFile = readlineSync.questionPath('Image File: ', {
  validate: function(path) { return /\.png/i.test(path) || 'It is not
});
```

create

Type: boolean *Default:* false

If true is specified, create a file or directory as a path that was input when it doesn't exist.

If true is specified to the **isDirectory** option, create a directory, otherwise a file.

It does not affect the existence check. Therefore, you can get a new file or directory path

anytime by specifying: {exists: false, create: true}

Additional Placeholders

The following additional placeholder parameters are available.

error

An error message when the input was not accepted.

This value is set by readlineSync, or the function that was specified to validate option.

min, max

A current value of **min and max** option.

promptCL

```
argsArray = readlineSync.promptCL([commandHandler[, options]])
```

Display a prompt-sign (see **prompt** option) to the user, and then consider the input as a command-line and parse it, and then return a result after the Enter key was pressed. A return value is an Array that includes the tokens that were parsed. It parses the input from the user as the command-line, and it interprets whitespaces, quotes, etc., and it splits it to tokens properly. Usually, a first element of the Array is command-name, and remaining elements are arguments.

```
argsArray = readlineSync.promptCL();
console.log(argsArray.join('\n'));

> command arg "arg" " a r g " "" 'a"r"g' "a""rg" "arg
command
arg
arg
arg
ar g
```

arg

commandHandler

By using the commandHandler argument, this method will come into its own. Specifying the Object to this argument has the more merit. And it has the more merit for promptCLLoop method.

If a function is specified to commandHandler argument, it is just called with a parsed Array as an argument list of the function. And this is an original input string, in the function.

For example, the following 2 codes work same except that this is enabled in the second one:

```
argsArray = readlineSync.promptCL();
if (argsArray[0] === 'add') {
  console.log(argsArray[1] + ' is added.');
} else if (argsArray[0] === 'copy') {
  console.log(argsArray[1] + ' is copied to ' + argsArray[2] + '.');
}

readlineSync.promptCL(function(command, arg1, arg2) {
  console.log('You want to: ' + this); // All of command-line.
  if (command === 'add') {
    console.log(arg1 + ' is added.');
  } else if (command === 'copy') {
    console.log(arg1 + ' is copied to ' + arg2 + '.');
  }
});
```

If an Object that has properties named as the command-name is specified, the command-name is interpreted, and a function as the value of matched property is called. A function is chosen properly by handling case of the command-name in accordance with the caseSensitive option.

The function is called with a parsed Array that excludes a command-name (i.e. first element is removed from the Array) as an argument list of the function.

That is, a structure of the commandHandler Object looks like:

```
commandA: function(arg) { ... },  // commandA requires one arg
commandB: function(arg1, arg2) { ... }, // readLineSync doesn't care
commandC: function() { ... }  // Of course, it can also ig
}
```

readlineSync just receives the arguments from the user and passes those to these functions without checking. The functions may have to check whether the required argument was input by the user, and more validate those.

For example, the following code works same to the above code:

```
readlineSync.promptCL({
  add: function(element) { // It's called by also "ADD", "Add", "aDd",
     console.log(element + ' is added.');
  },
  copy: function(from, to) {
     console.log(from + ' is copied to ' + to + '.');
  }
});
```

If the matched property is not found in the Object, a _ property is chosen, and the function as the value of this property is called with a parsed Array as an argument list of the function. Note that this includes a command-name. That is, the function looks like

```
function(command, arg1, arg2, \dots) { \dots }.
```

And if the Object doesn't have a _ property, any command that the matched property is not found in the Object is refused.

```
readlineSync.promptCL({
  copy: function(from, to) { // command-name is not included.
    console.log(from + ' is copied to ' + to + '.');
  },
  _: function(command) { // command-name is included.
    console.log('Sorry, ' + command + ' is not available.');
  }
});
```

Options

The following options have independent default value that is not affected by **Default**Options.

Option Name	Default Value	
hideEchoBack	false	
limitMessage	'Requested command is not available.'	
caseSensitive	false	
history	true	

The following options work as shown in the **Basic Options** section.

prompt	mask	defaultInput	encoding	bufferSize
print	cd			

promptLoop

```
readlineSync.promptLoop(inputHandler[, options])
```

Display a prompt-sign (see **prompt** option) to the user, and then call inputHandler function with the input from the user after it has been typed and the Enter key was pressed. Do these repeatedly until inputHandler function returns true.

For example, the following 2 codes work same:

```
while (true) {
  input = readlineSync.prompt();
  console.log('-- You said "' + input + '"');
  if (input === 'bye') {
    break;
  }
}
console.log('It\'s exited from loop.');
readlineSync.promptLoop(function(input) {
  console.log('-- You said "' + input + '"');
  return input === 'bye';
});
console.log('It\'s exited from loop.');
> hello
-- You said "hello"
> good morning
-- You said "good morning"
> bye
-- You said "bye"
It's exited from loop.
```

Options

The following options have independent default value that is not affected by **Default Options**.

Option Name	Default Value	
hideEchoBack	false	

Option Name	Default Value	
trueValue	null	
falseValue	null	
caseSensitive	false	
history	true	

The other options work as shown in the **Basic Options** section.

promptCLLoop

```
readlineSync.promptCLLoop([commandHandler[, options]])
```

Execute **promptCL** method repeatedly until chosen **commandHandler** returns true. The **commandHandler** may be a function that is called like:

```
exit = allCommands(command, arg1, arg2, ...);
```

or an Object that has the functions that are called like:

```
exit = foundCommand(arg1, arg2, ...);
```

See **promptCL** method for details.

This method looks like a combination of **promptCL** method and **promptLoop** method.

```
readlineSync.promptCLLoop({
  add: function(element) {
    console.log(element + ' is added.');
  },
  copy: function(from, to) {
    console.log(from + ' is copied to ' + to + '.');
}
```

```
},
bye: function() { return true; }
});
console.log('It\'s exited from loop.');

> add "New Hard Disk"
New Hard Disk is added.
> move filesOnOld "New Hard Disk"
Requested command is not available.
> copy filesOnOld "New Hard Disk"
filesOnOld is copied to New Hard Disk.
> bye
It's exited from loop.
```

Options

The following options have independent default value that is not affected by **Default Options**.

Option Name	Default Value	
hideEchoBack	false	
limitMessage	'Requested command is not available.'	
caseSensitive	false	
history	true	

The following options work as shown in the **Basic Options** section.

prompt	mask	defaultInput	encoding	bufferSize
print	cd			

promptSimShell

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```
input = readlineSync.promptSimShell([options])
```

Display a prompt-sign that is similar to that of the user's shell to the user, and then return the input from the user after it has been typed and the Enter key was pressed.

This method displays a prompt-sign like:

On Windows:

```
C:\Users\User\Path\To\Directory>
```

On others:

```
user@host:~/path/to/directory$
```

Options

The following options have independent default value that is not affected by **Default**Options.

Option Name	Default Value	
hideEchoBack	false	
history	true	

The other options other than **prompt** option work as shown in the **Basic Options** section.

keyInYN

```
boolYesOrEmpty = readlineSync.keyInYN([query[, options]])
```

Display a query to the user if it's specified, and then return a boolean or an empty string immediately a key was pressed by the user, **without pressing the Enter key**. Note that the user has no chance to change the input.

This method works like the window.confirm method of web browsers. A return value means "Yes" or "No" the user said. It differ depending on the pressed key:

```
Y: trueN: falseother: ''
```

The query is handled the same as that of the question method.

The default value of query is 'Are you sure?'.

The keys other than Y and N are also accepted (If you want to know a user's wish explicitly, use **keyInYNStrict** method). Therefore, if you let the user make an important decision (e.g. files are removed), check whether the return value is not *falsy*. That is, a default is "No".

For example:

```
if (!readlineSync.keyInYN('Do you want to install this?')) {
    // Key that is not `Y` was pressed.
    process.exit();
}
// Do something...
```

Or if you let the user stop something that must be done (e.g. something about the security), check whether the return value is false explicitly. That is, a default is "Yes".

For example:

```
// Don't use `(!readLineSync.keyInYN())`.
if (readlineSync.keyInYN('Continue virus scan?') === false) {
   // `N` key was pressed.
   process.exit();
}
// Continue...
```

Options

The following options work as shown in the **Basic Options** section.

```
encoding print
```

And the following additional option is available.

guide

Type: boolean *Default:* true

If true is specified, a string '[y/n]' as guide for the user is added to query . And ': 'is moved to the end of query, or it is added.

For example:

```
readlineSync.keyInYN('Do you like me?'); // No colon
readlineSync.keyInYN('Really? :'); // Colon already exists

Do you like me? [y/n]: y
Really? [y/n]: y
```

keyInYNStrict

```
boolYes = readlineSync.keyInYNStrict([query[, options]])
```

Display a query to the user if it's specified, and then accept only Y or N key, and then return a boolean immediately it was pressed by the user, without pressing the Enter key. Note that the user has no chance to change the input.

This method works like the window.confirm method of web browsers. A return value means "Yes" or "No" the user said. It differ depending on the pressed key:

```
Y: trueN: false
```

The query is handled the same as that of the question method.

The default value of query is 'Are you sure?'.

A key other than Y and N is not accepted. That is, a return value has no default. Therefore, the user has to tell an own wish explicitly. If you want to know a user's wish easily, use **keyInYN** method.

This method works same to **keyInYN** method except that this accept only Y or N key (Therefore, a return value is boolean every time). The options also work same to **keyInYN** method.

keyInPause

```
readlineSync.keyInPause([query[, options]])
```

Display a query to the user if it's specified, and then just wait for a key to be pressed by the user.

This method works like the window.alert method of web browsers. This is used to make the running of script pause and show something to the user, or wait for the user to be ready. By default, any key is accepted (See: Note). You can change this behavior by specifying limit option (e.g. accept only a Space Bar).

The query is handled the same as that of the **question** method. The default value of query is 'Continue...'.

For example:

```
// Have made the preparations for something...
console.log('==== Information of Your Computer ====');
console.log(info); // This can be `query`.
readlineSync.keyInPause();
console.log('It\'s executing now...');
// Do something...
==== Information of Your Computer ====
FOO: 123456
BAR: abcdef
Continue... (Hit any key)
```

It's executing now...

Options

The following option has independent default value that is not affected by **Default Options**.

Option Name	Default Value
limit	null

The following options work as shown in the **Basic Options** section.

caseSensitive	encoding	print	

And the following additional option is available.

guide

Type: boolean

Default: true

If true is specified, a string '(Hit any key)' as guide for the user is added to query.

For example:

```
readlineSync.keyInPause('It\'s pausing now...');
```

```
It's pausing now... (Hit any key)
```

Note

Control keys including Enter key are not accepted by keyIn* methods.

If you want to wait until the user presses Enter key, use question* methods instead of keyIn* methods. For example:

```
readlineSync.question('Hit Enter key to continue.', {hideEchoBack: tru
```

keyInSelect

```
index = readlineSync.keyInSelect(items[, query[, options]])
```

Display the list that was created with the items Array, and the query to the user if it's specified, and then return the number as an index of the items Array immediately it was chosen by pressing a key by the user, **without pressing the Enter key**. Note that the user has no chance to change the input.

The query is handled the same as that of the **question** method. The default value of query is 'Choose one from list: '.

The minimum length of items Array is 1 and maximum length is 35. These elements are displayed as item list. A key to let the user choose an item is assigned to each item automatically in sequence like "1, 2, 3 ... 9, A, B, C ...". A number as an index of the items Array that corresponds to a chosen item by the user is returned.

Note: Even if the items Array has only less than 35 items, a long Array that forces an user to scroll the list may irritate the user. Remember, the user might be in a console environment that doesn't support scrolling the screen. If you want to use a long items Array (e.g. more than 10 items), you should consider a "Pagination". (See **example**.)

For example:

```
frameworks = ['Express', 'hapi', 'flatiron', 'MEAN.JS', 'locomotive'];
index = readlineSync.keyInSelect(frameworks, 'Which framework?');
console.log(frameworks[index] + ' is enabled.');
```

- [1] Express
- [2] hapi
- [3] flatiron
- [4] MEAN.JS
- [5] locomotive
- [0] CANCEL

```
Which framework? [1...5 / 0]: 2 hapi is enabled.
```

Options

The following option has independent default value that is not affected by **Default Options**.

Option Name	Default Value
hideEchoBack	false

The following options work as shown in the **Basic Options** section.

And the following additional options are available.

guide

Type: boolean

Default: true

If true is specified, a string like '[1...5]' as guide for the user is added to query . And ':' is moved to the end of query , or it is added. This is the key list that corresponds to the item list.

cancel

Type: boolean, string or others

Default: 'CANCEL'

If a value other than false is specified, an item to let the user tell "cancel" is added to the item list. "[0] CANCEL" (default) is displayed, and if 0 key is pressed, -1 is returned. You can specify a label of this item other than 'CANCEL'. A string such as 'Go back' (empty string '' also), something that is converted to string such as Date, a string that includes placeholder such as 'Next \$<itemsCount> items' are accepted.

Additional Placeholders

The following additional placeholder parameters are available.

itemsCount

```
A length of a current items Array.
```

For example:

- [1] item-A
- [2] item-B
- [3] item-C
- [4] item-D
- [5] item-E
- [0] Show more than 5 items

firstItem

A first item in a current items Array.

For example:

```
index = readlineSync.keyInSelect(items, 'Choose $<firstItem> or anothe
```

lastItem

A last item in a current items Array.

For example:

[1] January

[2] February
[3] March
[4] April
[5] May
[6] June
[0] In after June

Placeholders

```
hideEchoBack, mask, defaultInput, caseSensitive, keepWhitespace,
encoding, bufferSize, history, cd, limit, trueValue, falseValue,
limitCount, limitCountNotZero, lastInput, history_mN, cwd, CWD, cwdHome,
date, time, localeDate, localeTime, C1-C2
```

The placeholders in the text are replaced to another string.

For example, the **limitMessage** option to display a warning message that means that the command the user requested is not available:

```
command = readlineSync.prompt({
   limit: ['add', 'remove'],
   limitMessage: '$<lastInput> is not available.'
});

> delete
delete is not available.
```

The placeholders can be included in:

- query argument
- prompt and limitMessage options
- limit option for keyIn* method and charlist option for questionNewPassword method (C1-C2 parameter only)
- And some additional options for the Utility Methods.

Syntax

```
$<parameter>
```

Or

```
$<(text1)parameter(text2)>
```

The placeholder is replaced to a string that is got by a parameter.

```
Both the (text1) and (text2) are optional.
```

A more added '\$' at the left of the placeholder is used as an escape character, it disables a placeholder. For example, '\$\$<foo>' is replaced to '\$<foo>' . If you want to put a '\$' which is *not* an escape character at the left of a placeholder, specify it like '\$<(\$)bufferSize>', then it is replaced to '\$1024'.

At the each position of '(text1)' and '(text2)', 'text1' and 'text2' are put when a string that was got by a parameter has more than 0 length. If that got string is '', a placeholder with or without '(text1)' and '(text2)' is replaced to ''.

For example, a warning message that means that the command the user requested is not available:

```
command = readlineSync.prompt({
    limit: ['add', 'remove'],
    limitMessage: 'Refused $<lastInput> you requested. Please input anot
});
```

```
> give-me-car
Refused give-me-car you requested. Please input another.
```

It looks like no problem.

But when the user input nothing (hit only the Enter key), and then a message is displayed:

```
>
Refused you requested. Please input another.
```

This goes well:

```
command = readlineSync.prompt({
    limit: ['add', 'remove'],
    limitMessage: 'Refused $<lastInput( you requested)>. Please input an
});
```

>

Refused . Please input another.

```
(May be more better: '$<(Refused )lastInput( you requested. )>Please input
another.')
```

Note: The syntax \${parameter} of older version is still supported, but this should not be used because it may be confused with template string syntax of ES6. And this will not be supported in due course of time.

Parameters

The following parameters are available. And some additional parameters are available in the **Utility Methods**.

hideEchoBack, mask, defaultInput, caseSensitive, keepWhitespace, encoding, bufferSize, history, cd, limit, trueValue, falseValue

A current value of each option.

It is converted to human readable if possible. The boolean value is replaced to 'on' or 'off', and the Array is replaced to the list of only string and number elements.

And in the keyIn* method, the parts of the list as characters sequence are suppressed. For example, when ['a', 'b', 'c', 'd', 'e'] is specified to the limit option,

Input something or the Enter key as "hello":

```
'$<limit>' is replaced to 'a...e' . If true is specified to the caseSensitive option, the characters are converted to lower case.
```

For example:

```
input = readlineSync.question(
   'Input something or the Enter key as "$<defaultInput>": ',
    {defaultInput: 'hello'}
);
```

limitCount, limitCountNotZero

```
A length of a current value of the limit option.
When the value of the limit option is empty, '$<limitCount>' is replaced to '0',
   '$<limitCountNotZero>' is replaced to ''.

For example:

action = readlineSync.question(
   'Choose action$<( from )limitCountNotZero( actions)>: ',
   {limit: availableActions}
);
```

Choose action from 5 actions:

lastInput

A last input from the user.

In any case, this is saved.

For example:

```
command = readlineSync.prompt({
   limit: availableCommands,
   limitMessage: '$<lastInput> is not available.'
});

> wrong-command
wrong-command is not available.
```

history_mN

When the history expansion feature is enabled (see **history** option), a current command line minus N .

This feature keeps the previous input only. That is, only history_m1 is supported.

For example:

```
while (true) {
  input = readlineSync.question('Something$<( or "!!" as ")history_m1(
  console.log('-- You said "' + input + '"');
}

Something: hello
-- You said "hello"
Something or "!!" as "hello": !!
hello
-- You said "hello"</pre>
```

cwd, CWD, cwdHome

A current working directory.

- cwd : A full-path
- CWD: A directory name

• cwdHome: A path that includes ~ as the home directory

For example, like bash/zsh:

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```
command = readlineSync.prompt({prompt: '[$<cwdHome>]$ '});
[~/foo/bar]$
```

date, time, localeDate, localeTime

A string as current date or time.

- date: A date portion
- time: A time portion
- localeDate: A locality sensitive representation of the date portion based on system settings
- localeTime: A locality sensitive representation of the time portion based on system settings

For example:

```
command = readlineSync.prompt({prompt: '[$<localeDate>]> '});
[04/21/2015]>
```

C1-C2

For limit option for keyIn* method and charlist option for questionNewPassword method only

A character list.

C1 and C2 are each single character as the start and the end. A sequence in ascending or descending order of characters ranging from C1 to C2 is created. For example, '\$<a-e>' is replaced to 'abcde'. '\$<5-1>' is replaced to '54321'.

For example, let the user input a password that is created with alphabet:

```
password = readlineSync.questionNewPassword('PASSWORD: ', {charlist: '
```

See also limit option for keyIn* method.

Special method getRawInput

```
rawInput = readlineSync.getRawInput()
```

Return a raw input data of last method.

When the input was terminated with no data, a NULL is inserted to the data.

This might contain control-codes (e.g. LF, CR, EOF, etc.), therefore, it might be used to get ^D that was input. But you should understand each environments for that. Or, **you should not use this** if your script is used in multiple environments.

For example, when the user input EOF (^D in Unix like system, ^Z in Windows), x1A (EOF) is returned in Windows, and x00 (NULL) is returned in Unix like system. And x04 (EOT) is returned in Unix like system with raw-mode. And also, when **external program** is used, nothing is returned. See also **Control characters**.

You may examine each environment and you must test your script very much, if you want to handle the raw input data.

With Task Runner

The easy way to control a flow of the task runner by the input from the user:

- Grunt plugin: grunt-confirm
- gulp plugin: gulp-confirm

If you want to control a flow of the task runner (e.g. **Grunt**), call readlineSync in a task callback that is called by the task runner. Then a flow of tasks is paused and it is controlled by the user.

For example, by using grunt-task-helper:

```
$ grunt
Running "fileCopy" task
Files already exist:
  file-a.png
  file-b.js
Overwrite? [y/n]: y
file-a.png copied.
file-b.js copied.
Done.
Gruntfile.js
grunt.initConfig({
  taskHelper: {
    fileCopy: {
      options: {
         handlerByTask: function() {
           // Abort the task if user don't want it.
           return readlineSync.keyInYN('Overwrite?');
         },
         filesArray: []
       },
    }
  },
  copy: {
    fileCopy: {
      files: '<%= taskHelper.fileCopy.options.filesArray %>'
    }
   }
});
```

Note

Platforms

TTY interfaces are different by the platforms. If the platform doesn't support the interactively reading from TTY, an error is thrown.

```
try {
   answer = readlineSync.question('What is your favorite food? ');
} catch (e) {
   console.error(e);
   process.exit(1);
}
```

Control characters

TTY interfaces are different by the platforms. In some environments, ANSI escape sequences might be ignored. For example, in non-POSIX TTY such as Windows CMD does not support it (that of Windows 8 especially has problems). Since readlineSync does not use Node.js library that emulates POSIX TTY (but that is still incomplete), those characters may be not parsed. Then, using ANSI escape sequences is not recommended if you will support more environments.

Also, control characters user input might be not accepted or parsed. That behavior differs depending on the environment. And current Node.js does not support controlling a readline system library.

Reading by external program

readlineSync tries to read from a console by using the external program if it is needed (e.g. when the input stream is redirected on Windows XP). And if the running Node.js doesn't support the **Synchronous Process Execution** (i.e. Node.js v0.10-), readlineSync uses "piping via files" for the synchronous execution.

As everyone knows, "piping via files" is no good. It blocks the event loop and a process. It might make the your script be slow.

Why did I choose it?:

- Good modules (native addon) for the synchronous execution exist, but node-gyp can't compile those in some platforms or Node.js versions.
- I think that the security is important more than the speed. Some modules have problem about security. Those don't protect the data. I think that the speed is not needed usually, because readlineSync is used while user types keys.

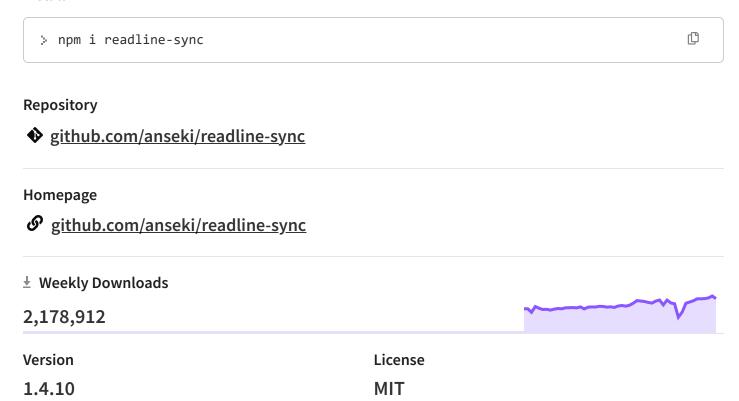
Deprecated methods and options

See **README-Deprecated.md**.

Keywords

readline synchronous interactive prompt question password cli tty command repl keyboard wait block

Install



Unpacked Size

133 kB

Total Files

9

Issues

Pull Requests

0

0

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