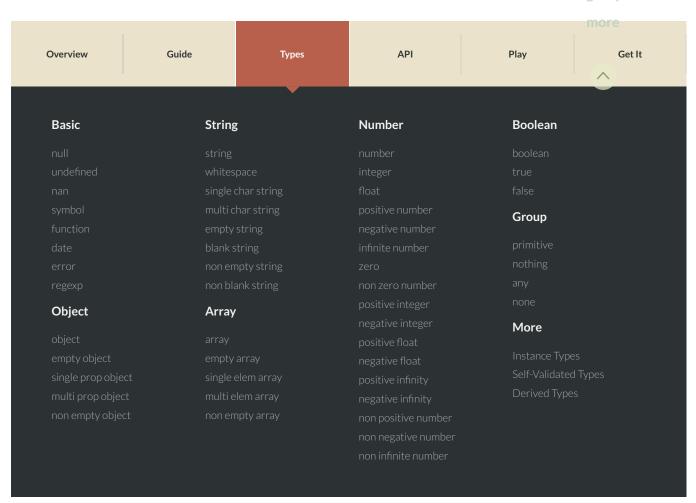


Elegant, highly efficient data validation for JavaScript

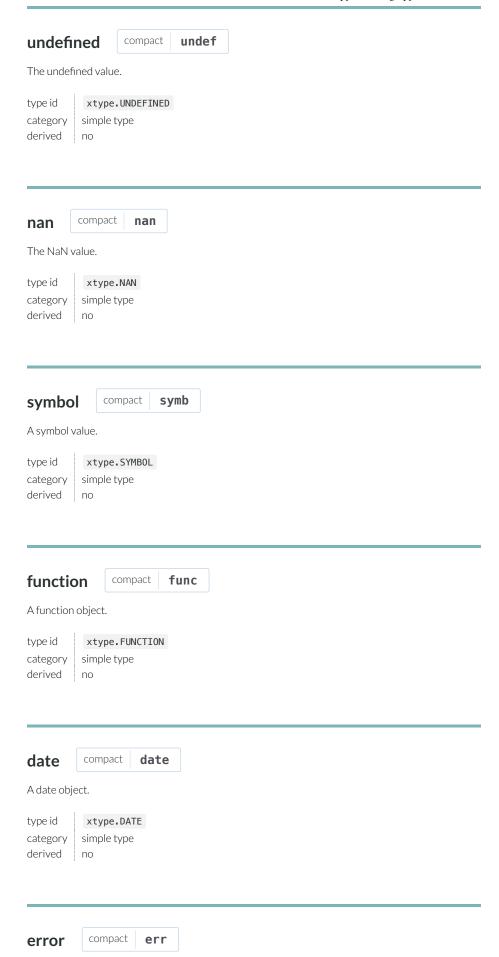
GitHub

basic object string array number boolean group



Basic Types





basic

object

string

array

number

boolean

group

more



An object of any of the error types.

type id xtype.ERROR category simple type derived no

A regular expression object.

no

xtype.REGEXP

simple type

regexp

type id

category

derived

basic

object

string

array

number

boolean

group

more

Object Types

compact regex



All other objects that are not one of the other specific object types.

type id xtype.0BJECT simple type derived derivation Match Any: empty_object single_prop_object multi_prop_object

obj0

empty_object compact

An object with no own properties.

type id xtype.EMPTY_OBJECT category extended type derived no

single_prop_object | compact | obj1

An object with exactly one own property.

type id xtype.SINGLE_PROP_OBJECT category extended type derived no

multi_prop_object

compact obj2+

An object with more than one own property.

type id xtype.MULTI_PROP_OBJECT category extended type derived no

basic

object

36111118

array

Hulliber

boolean

group

more



non_empty_object compact -obj0

An object with one or more own properties.

type id xtype.NON_EMPTY_OBJECT
category extended type
derived yes
derivation Match Any: single_prop_object multi_prop_object

String Types

string compact str

A string primitive or object.

type id
category
derived
derivation

multi_char_string

xtype.STRING

xtype.STRING

yes

derivation

multi_char_string

whitespace single_char_string

whitespace

compact str_

A string with one or more of only whitespace characters.

type id xtype.WHITESPACE
category extended type
derived no

single_char_string

compact strl

A string with exactly one non-whitespace character and zero or more whitespace characters.

type id xtype.SINGLE_CHAR_STRING category extended type derived no

Types - String Types

basic

object

array

boolean

multi_char_string

compact str2+

A string with more than one non-whitespace character and zero or more whitespace characters.

type id xtype.MULTI_CHAR_STRING category extended type

derived no

empty_string

compact str0

A string with zero characters.

type id xtype.EMPTY_STRING
category extended type
derived no

blank_string

compact str0_

A string with zero or more of only whitespace characters.

type id xtype.BLANK_STRING

category extended type
derived yes
derivation Match Any: empty_string whitespace

Traction Flaten Any. empty_string whitespace

non_empty_string

A string with at least one whitespace or other character.

type id xtype.NON_EMPTY_STRING category extended type yes derivation Match Any: whitespace single_char_string multi_char_string

-str0

compact

non_blank_string

compact -str0_

A string with at least one non-whitespace character.

type id xtype.NON_BLANK_STRING

category extended type

derived yes

derivation Match Any: single_char_string multi_char_string

Array Types

compact arr array An array object. xtype.ARRAY type id category simple type derived yes derivation Match Any: empty_array single_elem_array multi_elem_array basic object array boolean



empty_array

compact arr0

An array with no elements.

xtype.EMPTY_ARRAY type id category extended type derived no

single_elem_array

compact arr1

An array with exactly one element.

type id xtype.SINGLE_ELEM_ARRAY category extended type derived

multi_elem_array

compact arr2+

An array with more than one element.

type id xtype.MULTI_ELEM_ARRAY category extended type derived no

non_empty_array

compact -arr0

An array with one or more elements.

type id xtype.NON_EMPTY_ARRAY

category extended type
derived yes
derivation Match Any: single_elem_array multi_elem_array

basic

object

string

array

number

boolean

group

more



Number Types

number compact num

A number primitive or object.

type id
category
category
derived
derivation

Match Any: zero positive_integer positive_float
 positive_infinity negative_integer negative_float
 negative_infinity

integer

compact int

A number primitive or object with a whole number value.

type id xtype.INTEGER category extended type derived derivation Match Any: zero positive_integer negative_integer

float

compact **float**

A number primitive or object with a fractional component.

type id
category
derived
derivation
xtype.FLOAT
extended type
derivation
derivation
yes
match Any: positive_float negative_float

positive_number

compact **num+**

A number primitive or object greater than zero.

xtype.POSITIVE_NUMBER type id category extended type derived yes derivation Match Any: positive_integer positive_float positive_infinity negative_number compact num-A number primitive or object less than zero. type id xtype.NEGATIVE_NUMBER category extended type

Match Any: negative_integer negative_float negative_infinity

^

object

array

boolean

infinite_number

derived

derivation

A number primitive or object with a positive or negative infinite value.

compact

inf

type id xtype.INFINITE_NUMBER

category extended type
derived yes

derivation Match Any: positive_infinity negative_infinity

zero compact num0

A number primitive or object equal to zero.

type id xtype.ZER0 category extended type derived no

non_zero_number

nber compact -num0

A number primitive or object with a value other than zero.

type id xtype.NON_ZERO_NUMBER
category extended type
derived yes
derivation Match Any: positive_integer positive_float positive_infinity
negative_integer negative_float negative_infinity

positive_integer | compact | int+

A finite whole number primitive or object greater than zero.

xtype.POSITIVE_INTEGER type id extended type category derived

basic

object

array

boolean



negative_integer

compact int-

A finite whole number primitive or object less than zero.

xtype.NEGATIVE_INTEGER type id extended type category derived

positive_float



A finite number primitive or object greater than zero with a fractional component.

type id xtype.POSITIVE_FLOAT category extended type derived

negative_float



A finite number primitive or object less than zero with a fractional component.

type id xtype.NEGATIVE_FLOAT category extended type derived

positive_infinity



A number primitive or object with the value of the JavaScript positive Infinity.

xtype.POSITIVE_INFINITY type id category extended type derived

negative_infinity



A number primitive or object with the value of the JavaScript negative Infinity.

xtype.NEGATIVE_INFINITY type id extended type category derived

non_positive_number

compact -num+

A number primitive or object less than or equal to zero.

object string array number boolean group

basic

non_negative_number



A number primitive or object greater than or equal to zero.

^

non_infinite_number

compact -inf

A number primitive or object with a non-infinite value.

Boolean Types

boolean



A boolean primitive or object.

type id xtype.BOOLEAN simple type derived yes derivation Match Any: true false



type id xtype.TRUE category extended type derived no

false compact false

The boolean primitive or object that is false.

type id xtype.FALSE category extended type derived no

basic object string array number boolean

more



Group Types

primitive compact prim

A primitive type other than null or undefined.

nothing compact nil

The null or undefined value.

type id xtype.NOTHING
category extended type
derived yes
derivation Match Any: null undefined

any compact any

Any type.

```
type id
category
derived
derivation
```

```
xtype.ANY
extended type
yes

Match Any:    null    undefined    nan    true    false    empty_string
whitespace    single_char_string    multi_char_string    zero
positive_integer    positive_float    positive_infinity
negative_integer    negative_float    negative_infinity    empty_array
single_elem_array    multi_elem_array    empty_object
single_prop_object    multi_prop_object    symbol    date    error    regexp
function
```

basic

objec

string

array

number

hoolean

group

more

^

none | compact | none

Not of any type.

type id xtype.NONE category extended type derived no

More Types

Instance Types

Any constructor function is an Instance type. Each constructor function is the Instance type for objects of that constructor.

type id not applicable category instance type derived no

Self-Validated Types

Self-validated types are user-defined types that provide an implementation of the arbitrary custom validation used in validating that type. Any number of self-validated types can be created and used like, and/or together with, all other types.

type id not applicable
category self-validated type
derived no

Derived Types

Derived types are types created from a combination of multiple types, and may be created to validate either on a match of all the component types, or of any of the component types.

type id based on composition - only applicable for derivations using only built-in types derived type yes

derivation component types

basic

object

string

array

number

boolean

group



more

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