> *Wiki* ‣ ***API リファレンス***

D3の全てはD3のネームスコープの下にスコープされています。D3はセマンティックバージョニングを使用しています。d3.バージョンで、D3の現在のバージョンをわかります。

d3 (core)

[[Selections]]

- [[d3.select|Selections#d3_select]] - 現在のドキュメントから1つの要素を選択する
- [[d3.selectAll|Selections#d3_selectAll]] - 現在のドキュメントから複数の要素を選択する
- [[selection.attr|Selections#attr]] - 属性の値を取得、または設定する
- [[selection.classed|Selections#classed]] - CSSクラスを追加、または削除する
- [[selection.style|Selections#style]] - スタイルプロパティを取得、または設定する
- [[selection.property|Selections#property]] - get or set raw properties.
- [[selection.text|Selections#text]] - 要素内のテキストを取得、または設定する
- [[selection.html|Selections#html]] - 要素内のHTMLを取得、または設定する
- [[selection.append|Selections#append]] - 新しい要素を末尾に追加する
- [[selection.insert|Selections#insert]] - 新しい要素を指定した要素の前に挿入する
- [[selection.remove|Selections#remove]] - 要素を削除する
- [[selection.data|Selections#data]] - 要素集合のためのデータを取得、または設定する（未訳　while computing a relational join.）
- [[selection.enter|Selections#enter]] - 要素が足りない場合、プレースホルダを返す
- [[selection.exit|Selections#exit]] - 不要になった要素を返す
- [[selection.filter|Selections#filter]] - データに基づいてSelectionを絞り込む
- [[selection.datum|Selections#datum]] - 個々の要素のためのデータを取得、または設定する（未訳　without computing a join.）
- [[selection.sort|Selections#sort]] - sort elements in the document based on data.
- [[selection.order|Selections#order]] - reorders elements in the document to match the selection.
- [[selection.on|Selections#on]] - add or remove event listeners for interaction.
- [[selection.transition|Selections#transition]] - start a transition on the selected elements.
- selection.interrupt - immediately interrupt the current transition, if any.
- [[selection.each|Selections#each]] - call a function for each selected element.
- [[selection.call|Selections#call]] - call a function passing in the current selection.
- [[selection.empty|Selections#empty]] - returns true if the selection is empty.
- [[selection.node|Selections#node]] - returns the first node in the selection.
- selection.size - Selectionの中の要素の数を返す
- [[selection.select|Selections#select]] - subselect a descendant element for each selected element.
- [[selection.selectAll|Selections#selectAll]] - subselect multiple descendants for each selected element.
- [[d3.selection|Selections#d3_selection]] - augment the selection prototype, or test instance types.
- [[d3.event|Selections#d3_event]] - access the current user event for interaction.
- [[d3.mouse|Selections#d3_mouse]] - gets the mouse position relative to a specified container.
- [[d3.touches|Selections#d3_touches]] - gets the touch positions relative to a specified container.

Transitions

- d3.transition - start an animated transition.
- transition.delay - specify per-element delay in milliseconds.
- transition.duration - specify per-element duration in milliseconds.
- transition.ease - specify transition easing function.
- transition.attr - smoothly transition to the new attribute value.
- transition.attrTween - smoothly transition between two attribute values.

- transition.style - smoothly transition to the new style property value.
- transition.styleTween - smoothly transition between two style property values.
- transition.text - set the text content when the transition starts.
- transition.tween - specify a custom tween operator to run as part of the transition.
- transition.select - start a transition on a descendant element for each selected element.
- transition.selectAll - start a transition on multiple descendants for each selected element.
- transition.filter - filter a transition based on data.
- transition.transition - when this transition ends, start another one on the same elements.
- transition.remove - remove selected elements at the end of a transition.
- transition.empty - returns true if the transition is empty.
- transition.node - returns the first node in the transition.
- transition.size - returns the number of elements in the selection.
- transition.each - add a listener for transition end events.
- transition.call - call a function passing in the current transition.
- d3.ease - customize transition timing.
- ease - a parametric easing function.
- d3.timer - start a custom animation timer.
- d3.timer.flush - immediately execute any zero-delay timers.
- d3.interpolate - interpolate two values.
- interpolate - a parametric interpolation function.
- d3.interpolateNumber - interpolate two numbers.
- d3.interpolateRound - interpolate two integers.
- d3.interpolateString - interpolate two strings.
- d3.interpolateRgb - interpolate two RGB colors.
- d3.interpolateHsl - interpolate two HSL colors.
- d3.interpolateLab - interpolate two L*a*b* colors.
- d3.interpolateHcl - interpolate two HCL colors.
- d3.interpolateArray - interpolate two arrays of values.
- d3.interpolateObject - interpolate two arbitrary objects.
- d3.interpolateTransform - interpolate two 2D matrix transforms.
- d3.interpolateZoom - zoom and pan between two points smoothly.
- d3.interpolators - register a custom interpolator.

[[Working with Arrays|Arrays]]

- [[d3.ascending|Arrays#d3_ascending]] - compare two values for sorting.
- [[d3.descending|Arrays#d3_descending]] - compare two values for sorting.
- [[d3.min|Arrays#d3_min]] - find the minimum value in an array.
- [[d3.max|Arrays#d3_max]] - find the maximum value in an array.
- [[d3.extent|Arrays#d3_extent]] - find the minimum and maximum value in an array.
- [[d3.sum|Arrays#d3_sum]] - compute the sum of an array of numbers.
- [[d3.mean|Arrays#d3_mean]] - compute the arithmetic mean of an array of numbers.
- [[d3.median|Arrays#d3_median]] - compute the median of an array of numbers (the 0.5-quantile).
- [[d3.quantile|Arrays#d3_quantile]] - compute a quantile for a sorted array of numbers.
- [[d3.bisect|Arrays#d3_bisect]] - search for a value in a sorted array.
- [[d3.bisectRight|Arrays#d3_bisectRight]] - search for a value in a sorted array.
- [[d3.bisectLeft|Arrays#d3_bisectLeft]] - search for a value in a sorted array.
- [[d3.bisector|Arrays#d3_bisector]] - bisect using an accessor.
- d3.shuffle - randomize the order of an array.
- [[d3.permute|Arrays#d3_permute]] - reorder an array of elements according to an array of indexes.
- [[d3.zip|Arrays#d3_zip]] - transpose a variable number of arrays.

- [[d3.transpose|Arrays#d3_transpose]] - transpose an array of arrays.
- [[d3.pairs|Arrays#d3_pairs]] - returns an array of adjacent pairs of elements.
- [[d3.keys|Arrays#d3_keys]] - list the keys of an associative array.
- [[d3.values|Arrays#d3_values]] - list the values of an associated array.
- [[d3.entries|Arrays#d3_entries]] - list the key-value entries of an associative array.
- [[d3.merge|Arrays#d3_merge]] - merge multiple arrays into one array.
- [[d3.range|Arrays#d3_range]] - generate a range of numeric values.
- [[d3.nest|Arrays#d3_nest]] - group array elements hierarchically.
- [[nest.key|Arrays#nest_key]] - add a level to the nest hierarchy.
- [[nest.sortKeys|Arrays#nest_sortKeys]] - sort the current nest level by key.
- [[nest.sortValues|Arrays#nest_sortValues]] - sort the leaf nest level by value.
- [[nest.rollup|Arrays#nest_rollup]] - specify a rollup function for leaf values.
- [[nest.map|Arrays#nest_map]] - evaluate the nest operator, returning an associative array.
- [[nest.entries|Arrays#nest_entries]] - evaluate the nest operator, returning an array of key-values tuples.
- d3.map - a shim for ES6 maps, since objects are not hashes!
- map.has - returns true if the map contains the specified key.
- map.get - returns the value for the specified key.
- map.set - sets the value for the specified key.
- map.remove - removes the entry for specified key.
- map.keys - returns the map's array of keys.
- map.values - returns the map's array of values.
- map.entries - returns the map's array of entries (key-values objects).
- map.forEach - calls the specified function for each entry in the map.
- d3.set - a shim for ES6 sets, since objects are not hashes!
- set.has - returns true if the set contains the specified value.
- set.add - adds the specified value.
- set.remove - removes the specified value.
- set.values - returns the set's array of values.
- set.forEach - calls the specified function for each value in the set.

[[Math]]

- [[d3.random.normal|Math#random_normal]] - generate a random number with a normal distribution.
- [[d3.random.logNormal|Math#random_logNormal]] - generate a random number with a log-normal distribution.
- [[d3.random.bates|Math#random_bates]] - generate a random number with a Bates distribution.
- [[d3.random.irwinHall|Math#random_irwinHall]] - generate a random number with an Irwin–Hall distribution.
- [[d3.transform|Math#transform]] - compute the standard form of a 2D matrix transform.

[[Loading External Resources|Requests]]

- [[d3.xhr|Requests#d3_xhr]] - request a resource using XMLHttpRequest.
- xhr.header - set a request header.
- xhr.mimeType - set the Accept request header and override the response MIME type.
- xhr.response - set a response mapping function.
- xhr.get - issue a GET request.
- xhr.post - issue a POST request.
- xhr.send - issue a request with the specified method and data.
- xhr.abort - abort an outstanding request.
- xhr.on - add an event listener for "progress", "load" or "error" events.
- [[d3.text|Requests#d3_text]] - request a text file.

- [[d3.json|Requests#d3_json]] - request a JSON blob.
- [[d3.html|Requests#d3_html]] - request an HTML document fragment.
- [[d3.xml|Requests#d3_xml]] - request an XML document fragment.
- [[d3.csv|CSV]] - request a comma-separated values (CSV) file.
- [[d3.tsv|CSV#tsv]] - request a tab-separated values (TSV) file.

[[String Formatting|Formatting]]

- [[d3.format|Formatting#d3_format]] - format a number as a string.
- d3.formatPrefix - returns the [SI prefix] for the specified value and precision.
- [[d3.requote|Formatting#d3_requote]] - quote a string for use in a regular expression.
- [[d3.round|Formatting#d3_round]] - rounds a value to some digits after the decimal point.

[[CSV Formatting (d3.csv)|CSV]]

- [[d3.csv|CSV#csv]] - request a comma-separated values (CSV) file.
- [[d3.csv.parse|CSV#parse]] - parse a CSV string into objects using the header row.
- [[d3.csv.parseRows|CSV#parseRows]] - parse a CSV string into tuples, ignoring the header row.
- [[d3.csv.format|CSV#format]] - format an array of objects into a CSV string.
- [[d3.csv.formatRows|CSV#formatRows]] - format an array of tuples into a CSV string.
- [[d3.tsv|CSV#tsv]] - request a tab-separated values (TSV) file.
- [[d3.tsv.parse|CSV#tsv_parse]] - parse a TSV string into objects using the header row.
- [[d3.tsv.parseRows|CSV#tsv_parseRows]] - parse a TSV string into tuples, ignoring the header row.
- [[d3.tsv.format|CSV#tsv_format]] - format an array of objects into a TSV string.
- [[d3.tsv.formatRows|CSV#tsv_formatRows]] - format an array of tuples into a TSV string.
- d3.dsv - create a parser/formatter for the specified delimiter and mime type.

[[Colors]]

- [[d3.rgb|Colors#d3_rgb]] - specify a color in RGB space.
- [[rgb.brighter|Colors#rgb_brighter]] - increase RGB channels by some exponential factor (gamma).
- [[rgb.darker|Colors#rgb_darker]] - decrease RGB channels by some exponential factor (gamma).
- [[rgb.hsl|Colors#rgb_hsl]] - convert from RGB to HSL.
- [[rgb.toString|Colors#rgb_toString]] - convert an RGB color to a string.
- [[d3.hsl|Colors#d3_hsl]] - specify a color in HSL space.
- [[hsl.brighter|Colors#hsl_brighter]] - increase lightness by some exponential factor (gamma).
- [[hsl.darker|Colors#hsl_darker]] - decrease lightness by some exponential factor (gamma).
- [[hsl.rgb|Colors#hsl_rgb]] - convert from HSL to RGB.
- [[hsl.toString|Colors#hsl_toString]] - convert an HSL color to a string.
- [[d3.lab|Colors#d3_lab]] - specify a color in L*a*b* space.
- [[lab.brighter|Colors#lab_brighter]] - increase lightness by some exponential factor (gamma).
- [[lab.darker|Colors#lab_darker]] - decrease lightness by some exponential factor (gamma).
- [[lab.rgb|Colors#lab_rgb]] - convert from L*a*b* to RGB.
- [[lab.toString|Colors#lab_toString]] - convert a L*a*b* color to a string.
- [[d3.hcl|Colors#d3_hcl]] - specify a color in HCL space.
- [[hcl.brighter|Colors#hcl_brighter]] - increase lightness by some exponential factor (gamma).
- [[hcl.darker|Colors#hcl_darker]] - decrease lightness by some exponential factor (gamma).
- [[hcl.rgb|Colors#hcl_rgb]] - convert from HCL to RGB.
- [[hcl.toString|Colors#hcl_toString]] - convert an HCL color to a string.

[[Namespaces]]

- [[d3.ns.prefix|Namespaces#prefix]] - access or extend known XML namespaces.
- [[d3.ns.qualify|Namespaces#qualify]] - qualify a prefixed name, such as "xlink:href".

[[Internals]]

- [[d3.functor|Internals#functor]] - create a function that returns a constant.
- [[d3.rebind|Internals#rebind]] - rebind an inherited getter/setter method to a subclass.
- [[d3.dispatch|Internals#d3_dispatch]] - create a custom event dispatcher.
- [[dispatch.on|Internals#dispatch_on]] - register or unregister an event listener.
- [[dispatch.type|Internals#_dispatch]] - dispatch an event to registered listeners.

d3.scale (Scales)

[[Quantitative|Quantitative-Scales#quantitative]]

- [[d3.scale.linear|Quantitative-Scales#linear]] - construct a linear quantitative scale.
- [[linear|Quantitative-Scales#_linear]] - get the range value corresponding to a given domain value.
- [[linear.invert|Quantitative-Scales#linear_invert]] - get the domain value corresponding to a given range value.
- [[linear.domain|Quantitative-Scales#linear_domain]] - get or set the scale's input domain.
- [[linear.range|Quantitative-Scales#linear_range]] - get or set the scale's output range.
- [[linear.rangeRound|Quantitative-Scales#linear_rangeRound]] - set the scale's output range, and enable rounding.
- [[linear.interpolate|Quantitative-Scales#linear_interpolate]] - get or set the scale's output interpolator.
- [[linear.clamp|Quantitative-Scales#linear_clamp]] - enable or disable clamping of the output range.
- [[linear.nice|Quantitative-Scales#linear_nice]] - extend the scale domain to nice round numbers.
- [[linear.ticks|Quantitative-Scales#linear_ticks]] - get representative values from the input domain.
- [[linear.tickFormat|Quantitative-Scales#linear_tickFormat]] - get a formatter for displaying tick values.
- [[linear.copy|Quantitative-Scales#linear_copy]] - create a new scale from an existing scale.
- [[d3.scale.sqrt|Quantitative-Scales#sqrt]] - construct a quantitative scale with a square root transform.
- [[d3.scale.pow|Quantitative-Scales#pow]] - construct a quantitative scale with an exponential transform.
- [[pow|Quantitative-Scales#_pow]] - get the range value corresponding to a given domain value.
- [[pow.invert|Quantitative-Scales#pow_invert]] - get the domain value corresponding to a given range value.
- [[pow.domain|Quantitative-Scales#pow_domain]] - get or set the scale's input domain.
- [[pow.range|Quantitative-Scales#pow_range]] - get or set the scale's output range.
- [[pow.rangeRound|Quantitative-Scales#pow_rangeRound]] - set the scale's output range, and enable rounding.
- [[pow.interpolate|Quantitative-Scales#pow_interpolate]] - get or set the scale's output interpolator.
- [[pow.clamp|Quantitative-Scales#pow_clamp]] - enable or disable clamping of the output range.
- [[pow.nice|Quantitative-Scales#pow_nice]] - extend the scale domain to nice round numbers.
- [[pow.ticks|Quantitative-Scales#pow_ticks]] - get representative values from the input domain.
- [[pow.tickFormat|Quantitative-Scales#pow_tickFormat]] - get a formatter for displaying tick values.
- [[pow.exponent|Quantitative-Scales#pow_exponent]] - get or set the exponent power.
- [[pow.copy|Quantitative-Scales#pow_copy]] - create a new scale from an existing scale.
- [[d3.scale.log|Quantitative-Scales#log]] - construct a quantitative scale with an logarithmic transform.
- [[log|Quantitative-Scales#_log]] - get the range value corresponding to a given domain value.
- [[log.invert|Quantitative-Scales#log_invert]] - get the domain value corresponding to a given range value.
- [[log.domain|Quantitative-Scales#log_domain]] - get or set the scale's input domain.
- [[log.range|Quantitative-Scales#log_range]] - get or set the scale's output range.
- [[log.rangeRound|Quantitative-Scales#log_rangeRound]] - set the scale's output range, and enable rounding.
- [[log.interpolate|Quantitative-Scales#log_interpolate]] - get or set the scale's output interpolator.
- [[log.clamp|Quantitative-Scales#log_clamp]] - enable or disable clamping of the output range.
- [[log.nice|Quantitative-Scales#log_nice]] - extend the scale domain to nice powers of ten.

- [[log.ticks|Quantitative-Scales#log_ticks]] - get representative values from the input domain.
- [[log.tickFormat|Quantitative-Scales#log_tickFormat]] - get a formatter for displaying tick values.
- [[log.copy|Quantitative-Scales#log_copy]] - create a new scale from an existing scale.
- [[d3.scale.quantize|Quantitative-Scales#quantize]] - construct a linear quantitative scale with a discrete output range.
- [[quantize|Quantitative-Scales#_quantize]] - get the range value corresponding to a given domain value.
- quantize.invertExtent - get the domain values for the specified range value.
- [[quantize.domain|Quantitative-Scales#quantize_domain]] - get or set the scale's input domain.
- [[quantize.range|Quantitative-Scales#quantize_range]] - get or set the scale's output range (as discrete values).
- [[quantize.copy|Quantitative-Scales#quantize_copy]] - create a new scale from an existing scale.
- [[d3.scale.threshold|Quantitative-Scales#threshold]] - construct a threshold scale with a discrete output range.
- [[threshold|Quantitative-Scales#_threshold]] - get the range value corresponding to a given domain value.
- threshold.invertExtent - get the domain values for the specified range value.
- [[threshold.domain|Quantitative-Scales#threshold_domain]] - get or set the scale's input domain.
- [[threshold.range|Quantitative-Scales#threshold_range]] - get or set the scale's output range (as discrete values).
- [[threshold.copy|Quantitative-Scales#threshold_copy]] - create a new scale from an existing scale.
- [[d3.scale.quantile|Quantitative-Scales#quantile]] - construct a quantitative scale mapping to quantiles.
- [[quantile|Quantitative-Scales#_quantile]] - get the range value corresponding to a given domain value.
- quantile.invertExtent - get the domain values for the specified range value.
- [[quantile.domain|Quantitative-Scales#quantile_domain]] - get or set the scale's input domain (as discrete values).
- [[quantile.range|Quantitative-Scales#quantile_range]] - get or set the scale's output range (as discrete values).
- [[quantile.quantiles|Quantitative-Scales#quantile_quantiles]] - get the scale's quantile bin thresholds.
- [[quantile.copy|Quantitative-Scales#quantile_copy]] - create a new scale from an existing scale.
- [[d3.scale.identity|Quantitative-Scales#identity]] - construct a linear identity scale.
- [[identity|Quantitative-Scales#_identity]] - the identity function.
- [[identity.invert|Quantitative-Scales#_identity]] - equivalent to identity; the identity function.
- [[identity.domain|Quantitative-Scales#identity_domain]] - get or set the scale's domain and range.
- [[identity.range|Quantitative-Scales#identity_domain]] - equivalent to identity.domain.
- [[identity.ticks|Quantitative-Scales#identity_ticks]] - get representative values from the domain.
- [[identity.tickFormat|Quantitative-Scales#identity_tickFormat]] - get a formatter for displaying tick values.
- [[identity.copy|Quantitative-Scales#identity_copy]] - create a new scale from an existing scale.

[[Ordinal|Ordinal-Scales#ordinal]]

- [[d3.scale.ordinal|Ordinal-Scales#ordinal]] - construct an ordinal scale.
- [[ordinal|Ordinal-Scales#_ordinal]] - get the range value corresponding to a given domain value.
- [[ordinal.domain|Ordinal-Scales#ordinal_domain]] - get or set the scale's input domain.
- [[ordinal.range|Ordinal-Scales#ordinal_range]] - get or set the scale's output range.
- [[ordinal.rangePoints|Ordinal-Scales#ordinal_rangePoints]] - divide a continuous output range for discrete points.
- [[ordinal.rangeBands|Ordinal-Scales#ordinal_rangeBands]] - divide a continuous output range for discrete bands.
- [[ordinal.rangeRoundBands|Ordinal-Scales#ordinal_rangeRoundBands]] - divide a continuous output range for discrete bands.
- [[ordinal.rangeBand|Ordinal-Scales#ordinal_rangeBand]] - get the discrete range band width.

- [[ordinal.rangeExtent|Ordinal-Scales#ordinal_rangeExtent]] - get the minimum and maximum values of the output range.
- [[ordinal.copy|Ordinal-Scales#ordinal_copy]] - create a new scale from an existing scale.
- [[d3.scale.category10|Ordinal-Scales#category10]] - construct an ordinal scale with ten categorical colors.
- [[d3.scale.category20|Ordinal-Scales#category20]] - construct an ordinal scale with twenty categorical colors.
- [[d3.scale.category20b|Ordinal-Scales#category20b]] - construct an ordinal scale with twenty categorical colors.
- [[d3.scale.category20c|Ordinal-Scales#category20c]] - construct an ordinal scale with twenty categorical colors.

d3.svg (SVG)

[[Shapes|SVG-Shapes]]

- [[d3.svg.line|SVG-Shapes#line]] - create a new line generator.
- [[line|SVG-Shapes#_line]] - generate a piecewise linear curve, as in a line chart.
- [[line.x|SVG-Shapes#line_x]] - get or set the *x*-coordinate accessor.
- [[line.y|SVG-Shapes#line_y]] - get or set the *y*-coordinate accessor.
- [[line.interpolate|SVG-Shapes#line_interpolate]] - get or set the interpolation mode.
- [[line.tension|SVG-Shapes#line_tension]] - get or set the cardinal spline tension.
- line.defined - control whether the line is defined at a given point.
- [[d3.svg.line.radial|SVG-Shapes#line_radial]] - create a new radial line generator.
- [[line|SVG-Shapes#_line_radial]] - generate a piecewise linear curve, as in a polar line chart.
- [[line.radius|SVG-Shapes#line_radial_radius]] - get or set the *radius* accessor.
- [[line.angle|SVG-Shapes#line_radial_angle]] - get or set the *angle* accessor.
- line.defined - control whether the line is defined at a given point.
- [[d3.svg.area|SVG-Shapes#area]] - create a new area generator.
- [[area|SVG-Shapes#_area]] - generate a piecewise linear area, as in an area chart.
- [[area.x|SVG-Shapes#area_x]] - get or set the *x*-coordinate accessors.
- [[area.x0|SVG-Shapes#area_x0]] - get or set the *x0*-coordinate (baseline) accessor.
- [[area.x1|SVG-Shapes#area_x1]] - get or set the *x1*-coordinate (topline) accessor.
- [[area.y|SVG-Shapes#area_y]] - get or set the *y*-coordinate accessors.
- [[area.y0|SVG-Shapes#area_y0]] - get or set the *y0*-coordinate (baseline) accessor.
- [[area.y1|SVG-Shapes#area_y1]] - get or set the *y1*-coordinate (topline) accessor.
- [[area.interpolate|SVG-Shapes#area_interpolate]] - get or set the interpolation mode.
- [[area.tension|SVG-Shapes#area_tension]] - get or set the cardinal spline tension.
- area.defined - control whether the area is defined at a given point.
- [[d3.svg.area.radial|SVG-Shapes#area_radial]] - create a new area generator.
- [[area|SVG-Shapes#_area_radial]] - generate a piecewise linear area, as in a polar area chart.
- [[area.radius|SVG-Shapes#area_radial_radius]] - get or set the *radius* accessors.
- [[area.innerRadius|SVG-Shapes#area_radial_innerRadius]] - get or set the inner *radius* (baseline) accessor.
- [[area.outerRadius|SVG-Shapes#area_radial_outerRadius]] - get or set the outer *radius* (topline) accessor.
- [[area.angle|SVG-Shapes#area_radial_angle]] - get or set the *angle* accessors.
- [[area.startAngle|SVG-Shapes#area_radial_startAngle]] - get or set the *angle* (baseline) accessor.
- [[area.endAngle|SVG-Shapes#area_radial_endAngle]] - get or set the *angle* (topline) accessor.
- area.defined - control whether the area is defined at a given point.
- [[d3.svg.arc|SVG-Shapes#arc]] - create a new arc generator.
- [[arc|SVG-Shapes#_arc]] - generate a solid arc, as in a pie or donut chart.
- [[arc.innerRadius|SVG-Shapes#arc_innerRadius]] - get or set the inner radius accessor.
- [[arc.outerRadius|SVG-Shapes#arc_outerRadius]] - get or set the outer radius accessor.

- [[arc.startAngle|SVG-Shapes#arc_startAngle]] - get or set the start angle accessor.
- [[arc.endAngle|SVG-Shapes#arc_endAngle]] - get or set the end angle accessor.
- [[arc.centroid|SVG-Shapes#arc_centroid]] - compute the arc centroid.
- [[d3.svg.symbol|SVG-Shapes#symbol]] - create a new symbol generator.
- [[symbol|SVG-Shapes#_symbol]] - generate categorical symbols, as in a scatterplot.
- [[symbol.type|SVG-Shapes#symbol_type]] - get or set the symbol type accessor.
- [[symbol.size|SVG-Shapes#symbol_size]] - get or set the symbol size (in square pixels) accessor.
- d3.svg.symbolTypes - the array of supported symbol types.
- [[d3.svg.chord|SVG-Shapes#chord]] - create a new chord generator.
- [[chord|SVG-Shapes#_chord]] - generate a quadratic Bézier connecting two arcs, as in a chord diagram.
- [[chord.radius|SVG-Shapes#chord_radius]] - get or set the arc radius accessor.
- [[chord.startAngle|SVG-Shapes#chord_startAngle]] - get or set the arc start angle accessor.
- [[chord.endAngle|SVG-Shapes#chord_endAngle]] - get or set the arc end angle accessor.
- [[chord.source|SVG-Shapes#chord_source]] - get or set the source arc accessor.
- [[chord.target|SVG-Shapes#chord_target]] - get or set the target arc accessor.
- [[d3.svg.diagonal|SVG-Shapes#diagonal]] - create a new diagonal generator.
- [[diagonal|SVG-Shapes#_diagonal]] - generate a two-dimensional Bézier connector, as in a node-link diagram.
- [[diagonal.source|SVG-Shapes#diagonal_source]] - get or set the source point accessor.
- [[diagonal.target|SVG-Shapes#diagonal_target]] - get or set the target point accessor.
- [[diagonal.projection|SVG-Shapes#diagonal_projection]] - get or set an optional point transform.
- [[d3.svg.diagonal.radial|SVG-Shapes#diagonal_radial]] - create a new diagonal generator.
- [[diagonal|SVG-Shapes#_diagonal_radial]] - generate a two-dimensional Bézier connector, as in a node-link diagram.

[[Axes|SVG-Axes]]

- [[d3.svg.axis|SVG-Axes#axis]] - create a new axis generator.
- [[axis|SVG-Axes#_axis]] - creates or updates an axis for the given selection or transition.
- [[axis.scale|SVG-Axes#scale]] - get or set the axis scale.
- [[axis.orient|SVG-Axes#orient]] - get or set the axis orientation.
- [[axis.ticks|SVG-Axes#ticks]] - control how ticks are generated for the axis.
- [[axis.tickValues|SVG-Axes#tickValues]] - specify tick values explicitly.
- [[axis.tickSize|SVG-Axes#tickSize]] - specify the size of major, minor and end ticks.
- [[axis.innerTickSize|SVG-Axes#innerTickSize]] - specify the size of inner ticks.
- [[axis.outerTickSize|SVG-Axes#outerTickSize]] - specify the size of outer ticks.
- [[axis.tickPadding|SVG-Axes#tickPadding]] - specify padding between ticks and tick labels.
- [[axis.tickFormat|SVG-Axes#tickFormat]] - override the tick formatting for labels.

Controls

- d3.svg.brush - click and drag to select one- or two-dimensional regions.
- brush - apply a brush to the given selection or transition.
- brush.x - the brush's *x*-scale, for horizontal brushing.
- brush.y - the brush's *y*-scale, for vertical brushing.
- brush.extent - the brush's extent in zero, one or two dimensions.
- brush.clear - reset the brush extent.
- brush.empty - whether or not the brush extent is empty.
- brush.on - listeners for when the brush is moved.
- brush.event - dispatch brush events after setting the extent.

d3.time (Time)

[[Time Formatting]]

- [[d3.time.format|Time-Formatting#format]] - create a new local time formatter for a given specifier.
- [[format|Time-Formatting#_format]] - format a date into a string.
- [[format.parse|Time-Formatting#parse]] - parse a string into a date.
- [[d3.time.format.utc|Time-Formatting#format_utc]] - create a new UTC time formatter for a given specifier.
- [[d3.time.format.iso|Time-Formatting#format_iso]] - the ISO 8601 UTC time formatter.

[[Time Scales]]

- [[d3.time.scale|Time-Scales#scale]] - construct a linear time scale.
- [[scale|Time-Scales#_scale]] - get the range value corresponding to a given domain value.
- [[scale.invert|Time-Scales#invert]] - get the domain value corresponding to a given range value.
- [[scale.domain|Time-Scales#domain]] - get or set the scale's input domain.
- [[scale.nice|Time-Scales#nice]] - extend the scale domain to nice round numbers.
- [[scale.range|Time-Scales#range]] - get or set the scale's output range.
- [[scale.rangeRound|Time-Scales#rangeRound]] - set the scale's output range, and enable rounding.
- [[scale.interpolate|Time-Scales#interpolate]] - get or set the scale's output interpolator.
- [[scale.clamp|Time-Scales#clamp]] - enable or disable clamping of the output range.
- [[scale.ticks|Time-Scales#ticks]] - get representative values from the input domain.
- [[scale.tickFormat|Time-Scales#tickFormat]] - get a formatter for displaying tick values.
- [[scale.copy|Time-Scales#copy]] - create a new scale from an existing scale.

[[Time Intervals]]

- [[d3.time.interval|Time-Intervals#interval]] - a time interval in local time.
- [[interval|Time-Intervals#_interval]] - alias for interval.floor.
- [[interval.range|Time-Intervals#interval_range]] - returns dates within the specified range.
- [[interval.floor|Time-Intervals#interval_floor]] - rounds down to the nearest interval.
- [[interval.round|Time-Intervals#interval_round]] - rounds up or down to the nearest interval.
- [[interval.ceil|Time-Intervals#interval_ceil]] - rounds up to the nearest interval.
- [[interval.offset|Time-Intervals#interval_offset]] - returns a date offset by some interval.
- [[interval.utc|Time-Intervals#interval_utc]] - returns the UTC-equivalent time interval.
- [[d3.time.day|Time-Intervals#day]] - every day (12:00 AM).
- [[d3.time.days|Time-Intervals#day]] - alias for day.range.
- d3.time.dayOfYear - computes the day number.
- [[d3.time.hour|Time-Intervals#hour]] - every hour (e.g., 1:00 AM).
- [[d3.time.hours|Time-Intervals#hours]] - alias for hour.range.
- [[d3.time.minute|Time-Intervals#minute]] - every minute (e.g., 1:02 AM).
- [[d3.time.minutes|Time-Intervals#minutes]] - alias for minute.range.
- [[d3.time.month|Time-Intervals#month]] - every month (e.g., February 1, 12:00 AM).
- [[d3.time.months|Time-Intervals#months]] - alias for month.range.
- [[d3.time.second|Time-Intervals#second]] - every second (e.g., 1:02:03 AM).
- [[d3.time.seconds|Time-Intervals#seconds]] - alias for second.range.
- [[d3.time.sunday|Time-Intervals#sunday]] - every Sunday (e.g., February 5, 12:00 AM).
- [[d3.time.sundays|Time-Intervals#sundays]] - alias for sunday.range.
- d3.time.sundayOfYear - computes the sunday-based week number.
- [[d3.time.monday|Time-Intervals#monday]] - every Monday (e.g., February 5, 12:00 AM).
- [[d3.time.mondays|Time-Intervals#mondays]] - alias for monday.range.
- d3.time.mondayOfYear - computes the monday-based week number.
- [[d3.time.tuesday|Time-Intervals#tuesday]] - every Tuesday (e.g., February 5, 12:00 AM).
- [[d3.time.tuesdays|Time-Intervals#tuesdays]] - alias for tuesday.range.
- d3.time.tuesdayOfYear - computes the tuesday-based week number.

- [[d3.time.wednesday|Time-Intervals#wednesday]] - every Wednesday (e.g., February 5, 12:00 AM).
- [[d3.time.wednesdays|Time-Intervals#wednesdays]] - alias for wednesday.range.
- d3.time.wednesdayOfYear - computes the wednesday-based week number.
- [[d3.time.thursday|Time-Intervals#thursday]] - every Thursday (e.g., February 5, 12:00 AM).
- [[d3.time.thursdays|Time-Intervals#thursdays]] - alias for thursday.range.
- d3.time.thursdayOfYear - computes the thursday-based week number.
- [[d3.time.friday|Time-Intervals#friday]] - every Friday (e.g., February 5, 12:00 AM).
- [[d3.time.fridays|Time-Intervals#fridays]] - alias for friday.range.
- d3.time.fridayOfYear - computes the friday-based week number.
- [[d3.time.saturday|Time-Intervals#saturday]] - every Saturday (e.g., February 5, 12:00 AM).
- [[d3.time.saturdays|Time-Intervals#saturdays]] - alias for saturday.range.
- d3.time.saturdayOfYear - computes the saturday-based week number.
- [[d3.time.week|Time-Intervals#week]] - alias for sunday.
- [[d3.time.weeks|Time-Intervals#weeks]] - alias for sunday.range.
- d3.time.weekOfYear - alias for sundayOfYear.
- [[d3.time.year|Time-Intervals#year]] - every year (e.g., January 1, 12:00 AM).
- [[d3.time.years|Time-Intervals#years]] - alias for year.range.

d3.layout (Layouts)

[[Bundle|Bundle-Layout]]

- [[d3.layout.bundle|Bundle-Layout#bundle]] - construct a new default bundle layout.
- [[bundle|Bundle-Layout#_bundle]] - apply Holten's *hierarchical bundling* algorithm to edges.

[[Chord|Chord-Layout]]

- [[d3.layout.chord|Chord-Layout#chord]] - produce a chord diagram from a matrix of relationships.
- [[chord.matrix|Chord-Layout#matrix]] - get or set the matrix data backing the layout.
- [[chord.padding|Chord-Layout#padding]] - get or set the angular padding between chord segments.
- [[chord.sortGroups|Chord-Layout#sortGroups]] - get or set the comparator function for groups.
- [[chord.sortSubgroups|Chord-Layout#sortSubgroups]] - get or set the comparator function for subgroups.
- [[chord.sortChords|Chord-Layout#sortChords]] - get or set the comparator function for chords (z-order).
- [[chord.chords|Chord-Layout#chords]] - retrieve the computed chord angles.
- [[chord.groups|Chord-Layout#groups]] - retrieve the computed group angles.

Cluster

- d3.layout.cluster - cluster entities into a dendrogram.
- cluster - alias for cluster.nodes.
- cluster.nodes - compute the cluster layout and return the array of nodes.
- cluster.links - compute the parent-child links between tree nodes.
- cluster.children - get or set the accessor function for child nodes.
- cluster.sort - get or set the comparator function for sibling nodes.
- cluster.separation - get or set the spacing function between neighboring nodes.
- cluster.size - get or set the layout size in *x* and *y*.
- cluster.nodeSize - specify a fixed size for each node.

[[Force|Force-Layout]]

- [[d3.layout.force|Force-Layout#force]] - position linked nodes using physical simulation.
- [[force.on|Force-Layout#on]] - listen to updates in the computed layout positions.
- [[force.nodes|Force-Layout#nodes]] - get or set the array of nodes to layout.
- [[force.links|Force-Layout#links]] - get or set the array of links between nodes.

- [[force.size|Force-Layout#size]] - get or set the layout size in *x* and *y*.
- [[force.linkDistance|Force-Layout#linkDistance]] - get or set the link distance.
- [[force.linkStrength|Force-Layout#linkStrength]] - get or set the link strength.
- [[force.friction|Force-Layout#friction]] - get or set the friction coefficient.
- [[force.charge|Force-Layout#charge]] - get or set the charge strength.
- [[force.gravity|Force-Layout#gravity]] - get or set the gravity strength.
- [[force.theta|Force-Layout#theta]] - get or set the accuracy of the charge interaction.
- [[force.start|Force-Layout#start]] - start or restart the simulation when the nodes change.
- [[force.resume|Force-Layout#resume]] - reheat the cooling parameter and restart simulation.
- [[force.stop|Force-Layout#stop]] - immediately terminate the simulation.
- [[force.alpha|Force-Layout#alpha]] - get or set the layout's cooling parameter.
- [[force.tick|Force-Layout#tick]] - run the layout simulation one step.
- [[force.drag|Force-Layout#drag]] - bind a behavior to nodes to allow interactive dragging.

Hierarchy

- d3.layout.hierarchy - derive a custom hierarchical layout implementation.
- hierarchy - alias for hierarchy.nodes.
- hierarchy.nodes - compute the layout and return the array of nodes.
- hierarchy.links - compute the parent-child links between tree nodes.
- hierarchy.children - get or set the accessor function for child nodes.
- hierarchy.sort - get or set the comparator function for sibling nodes.
- hierarchy.value - get or set the value accessor function.
- hierarchy.revalue - recompute the hierarchy values.

[[Histogram|Histogram-Layout]]

- [[d3.layout.histogram|Histogram-Layout#histogram]] - construct a new default histogram layout.
- [[histogram|Histogram-Layout#_histogram]] - compute the distribution of data using quantized bins.
- [[histogram.value|Histogram-Layout#value]] - get or set the value accessor function.
- [[histogram.range|Histogram-Layout#range]] - get or set the considered value range.
- [[histogram.bins|Histogram-Layout#bins]] - specify how values are organized into bins.
- [[histogram.frequency|Histogram-Layout#frequency]] - compute the distribution as counts or probabilities.

Pack

- d3.layout.pack - produce a hierarchical layout using recursive circle-packing.
- pack - alias for pack.nodes.
- pack.nodes - compute the pack layout and return the array of nodes.
- pack.links - compute the parent-child links between tree nodes.
- pack.children - get or set the children accessor function.
- pack.sort - control the order in which sibling nodes are traversed.
- pack.value - get or set the value accessor used to size circles.
- pack.size - specify the layout size in *x* and *y*.
- pack.radius - specify the node radius, rather than deriving it from value.
- pack.padding - specify the layout padding in (approximate) pixels.

Partition

- d3.layout.partition - recursively partition a node tree into a sunburst or icicle.
- partition - alias for partition.nodes.
- partition.nodes - compute the partition layout and return the array of nodes.
- partition.links - compute the parent-child links between tree nodes.
- partition.children - get or set the children accessor function.

- partition.sort - control the order in which sibling nodes are traversed.
- partition.value - get or set the value accessor used to size circles.
- partition.size - specify the layout size in *x* and *y*.

[[Pie|Pie-Layout]]

- [[d3.layout.pie|Pie-Layout#pie]] - construct a new default pie layout.
- [[pie|Pie-Layout#_pie]] - compute the start and end angles for arcs in a pie or donut chart.
- [[pie.value|Pie-Layout#value]] - get or set the value accessor function.
- [[pie.sort|Pie-Layout#sort]] - control the clockwise order of pie slices.
- [[pie.startAngle|Pie-Layout#startAngle]] - get or set the overall start angle of the pie.
- [[pie.endAngle|Pie-Layout#endAngle]] - get or set the overall end angle of the pie.

[[Stack|Stack-Layout]]

- [[d3.layout.stack|Stack-Layout#stack]] - construct a new default stack layout.
- [[stack|Stack-Layout#_stack]] - compute the baseline for each series in a stacked bar or area chart.
- [[stack.values|Stack-Layout#values]] - get or set the values accessor function per series.
- [[stack.order|Stack-Layout#order]] - control the order in which series are stacked.
- [[stack.offset|Stack-Layout#offset]] - specify the overall baseline algorithm.
- [[stack.x|Stack-Layout#x]] - get or set the *x*-dimension accessor function.
- [[stack.y|Stack-Layout#y]] - get or set the *y*-dimension accessor function.
- [[stack.out|Stack-Layout#out]] - get or set the output function for storing the baseline.

Tree

- d3.layout.tree - position a tree of nodes tidily.
- tree - alias for tree.nodes.
- tree.nodes - compute the tree layout and return the array of nodes.
- tree.links - compute the parent-child links between tree nodes.
- tree.children - get or set the children accessor function.
- tree.sort - control the order in which sibling nodes are traversed.
- tree.separation - get or set the spacing function between neighboring nodes.
- tree.size - specify the layout size in *x* and *y*.
- tree.nodeSize - specify a fixed size for each node.

Treemap

- d3.layout.treemap - use recursive spatial subdivision to display a tree of nodes.
- treemap - alias for treemap.nodes.
- treemap.nodes - compute the treemap layout and return the array of nodes.
- treemap.links - compute the parent-child links between tree nodes.
- treemap.children - get or set the children accessor function.
- treemap.sort - control the order in which sibling nodes are traversed.
- treemap.value - get or set the value accessor used to size treemap cells.
- treemap.size - specify the layout size in *x* and *y*.
- treemap.padding - specify the padding between a parent and its children.
- treemap.round - enable or disable rounding to exact pixels.
- treemap.sticky - make the layout sticky for stable updates.
- treemap.mode - change the treemap layout algorithm.

d3.geo (Geography)

Paths

- d3.geo.path - create a new geographic path generator.
- path - project the specified feature and render it to the context.
- path.projection - get or set the geographic projection.
- path.context - get or set the render context.
- path.pointRadius - get or set the radius to display point features.
- path.area - compute the projected area of a given feature.
- path.centroid - compute the projected centroid of a given feature.
- path.bounds - compute the projected bounds of a given feature.
- d3.geo.graticule - create a graticule generator.
- graticule - generate a MultiLineString of meridians and parallels.
- graticule.lines - generate an array of LineStrings of meridians and parallels.
- graticule.outline - generate a Polygon of the graticule's extent.
- graticule.extent - get or set the major & minor extents.
- graticule.majorExtent - get or set the major extent.
- graticule.minorExtent - get or set the minor extent.
- graticule.step - get or set the major & minor step intervals.
- graticule.majorStep - get or set the major step intervals.
- graticule.minorStep - get or set the minor step intervals.
- graticule.precision - get or set the latitudinal precision.
- d3.geo.circle - create a circle generator.
- circle - generate a piecewise circle as a Polygon.
- circle.origin - specify the origin in latitude and longitude.
- circle.angle - specify the angular radius in degrees.
- circle.precision - specify the precision of the piecewise circle.
- d3.geo.area - compute the spherical area of a given feature.
- d3.geo.bounds - compute the latitude-longitude bounding box for a given feature.
- d3.geo.centroid - compute the spherical centroid of a given feature.
- d3.geo.distance - compute the great-arc distance between two points.
- d3.geo.interpolate - interpolate between two points along a great arc.
- d3.geo.length - compute the length of a line string or the circumference of a polygon.
- d3.geo.rotation - create a rotation function for the specified angles [λ, φ, γ].
- rotation - rotate the given location around the sphere.
- rotation.invert - inverse-rotate the given location around the sphere.

[[Projections|Geo-Projections]]

- d3.geo.projection - create a standard projection from a raw projection.
- projection - project the specified location.
- projection.invert - invert the projection for the specified point.
- projection.rotate - get or set the projection's three-axis rotation.
- projection.center - get or set the projection's center location.
- projection.translate - get or set the projection's translation position.
- projection.scale - get or set the projection's scale factor.
- projection.clipAngle - get or set the radius of the projection's clip circle.
- projection.clipExtent - get or set the projection's viewport clip extent, in pixels.
- projection.precision - get or set the precision threshold for adaptive resampling.
- projection.stream - wrap the specified stream listener, projecting input geometry.
- d3.geo.projectionMutator - create a standard projection from a mutable raw projection.
- d3.geo.albers - the Albers equal-area conic projection.
- albers.parallels - get or set the projection's two standard parallels.
- d3.geo.albersUsa - a composite Albers projection for the United States.

- d3.geo.azimuthalEqualArea - the azimuthal equal-area projection.
- d3.geo.azimuthalEquidistant - the azimuthal equidistant projection.
- d3.geo.conicConformal - the conic conformal projection.
- d3.geo.conicEquidistant - the conic equidistant projection.
- d3.geo.conicEqualArea the conic equal-area (a.k.a. Albers) projection.
- d3.geo.equirectangular - the equirectangular (plate carreé) projection.
- d3.geo.gnomonic - the gnomonic projection.
- d3.geo.mercator - the spherical Mercator projection.
- d3.geo.orthographic - the azimuthal orthographic projection.
- d3.geo.stereographic - the azimuthal stereographic projection.
- d3.geo.azimuthalEqualArea.raw - the raw azimuthal equal-area projection.
- d3.geo.azimuthalEquidistant.raw - the azimuthal equidistant projection.
- d3.geo.conicConformal.raw - the raw conic conformal projection.
- d3.geo.conicEquidistant.raw - the raw conic equidistant projection.
- d3.geo.conicEqualArea.raw the raw conic equal-area (a.k.a. Albers) projection.
- d3.geo.equirectangular.raw - the raw equirectangular (plate carrée) projection.
- d3.geo.gnomonic.raw - the raw gnomonic projection.
- d3.geo.mercator.raw - the raw Mercator projection.
- d3.geo.orthographic.raw - the raw azimuthal orthographic projection.
- d3.geo.stereographic.raw - the raw azimuthal stereographic projection.
- d3.geo.transverseMercator.raw - the raw transverse Mercator projection.

Streams

- d3.geo.stream - convert a GeoJSON object to a geometry stream.
- stream.point - indicate an *x*, *y* (and optionally *z*) coordinate.
- stream.lineStart - indicate the start of a line or ring.
- stream.lineEnd - indicate the end of a line or ring.
- stream.polygonStart - indicate the start of a polygon.
- stream.polygonEnd - indicate the end of a polygon.
- stream.sphere - indicate a sphere.
- d3.geo.transform - transform streaming geometries.
- transform.stream - wraps a given stream.
- d3.geo.clipExtent - a stream transform that clips geometries to a given axis-aligned rectangle.
- clipExtent.extent - sets the clip extent.

d3.geom (Geometry)

[[Voronoi|Voronoi-Geom]]

- d3.geom.voronoi - create a Voronoi layout with default accessors.
- voronoi - compute the Voronoi tessellation for the specified points.
- voronoi.x - get or set the x-coordinate accessor for each point.
- voronoi.y - get or set the y-coordinate accessor for each point.
- voronoi.clipExent - get or set the clip extent for the tesselation.
- voronoi.links - compute the Delaunay mesh as a network of links.
- voronoi.triangles - compute the Delaunay mesh as a triangular tessellation.

[[Quadtree|Quadtree-Geom]]

- [[d3.geom.quadtree|Quadtree-Geom#quadtree]] - constructs a quadtree for an array of points.
- [[quadtree.add|Quadtree-Geom#add]] - add a point to the quadtree.
- [[quadtree.visit|Quadtree-Geom#visit]] - recursively visit nodes in the quadtree.

[[Polygon|Polygon-Geom]]

- [[d3.geom.polygon|Polygon-Geom#polygon]] - create a polygon from the specified array of points.
- [[polygon.area|Polygon-Geom#area]] - compute the counterclockwise area of this polygon.
- [[polygon.centroid|Polygon-Geom#centroid]] - compute the area centroid of this polygon.
- [[polygon.clip|Polygon-Geom#clip]] - clip the specified polygon to this polygon.

[[Hull|Hull-Geom]]

- d3.geom.hull - create a convex hull layout with default accessors.
- hull - compute the convex hull for the given array of points.
- hull.x - get or set the *x*-coordinate accessor.
- hull.y - get or set the *y*-coordinate accessor.

[[d3.behavior (Behaviors)|Behaviors]]

[[Drag|Drag-Behavior]]

- [[d3.behavior.drag|Drag-Behavior#drag]]
- [[drag.origin|Drag-Behavior#origin]]
- [[drag.on|Drag-Behavior#on]]

Zoom

- d3.behavior.zoom - create a zoom behavior.
- zoom - apply the zoom behavior to the selected elements.
- zoom.scale - the current scale factor.
- zoom.translate - the current translate offset.
- zoom.scaleExtent - optional limits on the scale factor.
- zoom.center - an optional focal point for mousewheel zooming.
- zoom.size - the dimensions of the viewport.
- zoom.x - an optional scale whose domain is bound to the *x* extent of the viewport.
- zoom.y - an optional scale whose domain is bound to the *y* extent of the viewport.
- zoom.on - listeners for when the scale or translate changes.
- zoom.event - dispatch zoom events after setting the scale or translate.