d3 (core)

Selections

d3.select - select an element from the current doc.

d3.selectAll - select multiple elements from the current doc. selection.attr - get/set attr vals.

selection.classed - add/remove CSS classes.

selection.style - get/set style properties.

selection.property - get/set raw properties.

selection.text - get/set text content.

selection.html - get/set inner HTML content.

selection.append - create and append new elements.

selection.insert - create and insert new elements before existing elements.

selection.remove - remove elements from the doc.

selection.data - get/set data for a group of elements, while computing a relational join.

 ${\bf selection.enter}$ - returns placeholders for missing elements.

selection.exit - returns elements that are no longer needed.

selection.datum - get/set data for individual elements, without computing a join.

selection.filter - filter a selection based on data.

 ${\bf selection.sort}$ - sort elements in the doc based on data.

 ${f selection.order}$ - reorders elements in the doc to match the selection.

selection.on - add/remove event listeners for interaction.

selection.transition - start a trans. on the selected elements.

selection.each - call a fcn for each selected element.

selection.call - call a fcn passing in the current selection.

selection.empty - returns true if the selection is empty.

selection.node - access the first node in a selection.

 ${f selection.select}$ - subselect a descendant element for each selected element.

 $\mathbf{selection.selectAll}$ - $\mathbf{subselect}$ multiple descendants for each $\mathbf{selected}$ element.

 ${f d3.selection}$ - augment the selection prototype, or test instance types.

 ${\bf d3.event}$ - access the current user event for interaction.

 ${\bf d3.mouse}$ - gets the mouse position relative to a specified container.

 ${f d3.touches}$ - gets the touch positions relative to a specified container.

Transitions

d3.transition - start an animated trans..

transition.delay - specify per-element delay in ms.

transition.duration - specify per-element duration in ms.

transition.ease - specify trans. easing fcn.

transition.attr - smoothly trans to the new attr val.

transition.attrTween - smoothly trans b/w two attr vals.

 ${\bf transition.style}$ - smoothly trans to the new style property val.

transition.styleTween - smoothly trans b/w two style property vals.

transition.text - set the text content when the trans starts.
transition.tween - specify a custom tween operator to run as
part of the trans.

 ${f transition.select}$ - start a trans on a descendant element for each selected element.

transition.selectAll - start a trans on multiple descendants for each selected element.

transition.filter - filter a trans based on data.

transition.transition - when this trans ends, start another one on the same elements.

 ${f transition.remove}$ - remove sel. elements at the end of a trans.

transition.each - add a listener for transition end events.

transition.call - call a fcn passing in the current trans.

d3.ease - customize trans timing.

ease - a parametric easing fcn.

d3.timer - start a custom animation timer.

d3.timer.flush - immediately execute any zero-delay timers.

d3.interpolate - interpolate two vals.

interpolate - a parametric interpolation fcn.

d3.interpolateNumber - interpolate two numbers.

d3.interpolateRound - interpolate two integers.

 ${\bf d3.interpolateString}$ - 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 vals.

d3.interpolateObject - interpolate two arbitrary objects.

d3.interpolateTransform - interpolate two 2D matrix trans.d3.interpolators - register a custom interpolator.

Working with Arrays

d3.ascending - compare two values for sorting.

d3.descending - compare two values for sorting.

d3.min - find the min value in an array.

d3.max - find the max value in an array.

d3.extent - find the min and max value in an array.

d3.sum - compute the sum of an array.

d3.mean - compute the arithmetic mean of an array.

d3.median - compute the median of an array (the 0.5-quantile).

d3.quantile - compute a quantile for a sorted array.

d3.bisect - search for a value in a sorted array.

d3.bisectRight - search for a value in a sorted array.

d3.bisectLeft - search for a value in a sorted array.

d3.bisector - bisect using an accessor.

d3.shuffle - randomize the order of an array.

d3.permute - reorder an array of elements according to an array of indexes.

d3.zip - transpose a variable number of arrays.

d3.transpose - transpose an array of arrays.

d3.keys - list the keys of an assoc array.

d3.values - list the values of an associated array.

d3.entries - list the key-value entries of an assoc array.

d3.merge - merge multiple arrays into one array.

d3.range - generate a range of numeric vals.

d3.nest - group array elements hierarchically.

nest.key - add a level to the nest hierarchy.
nest.sortKeys - sort the current nest level by key.

nest.sortValues - sort the leaf nest level by val.

nest.rollup - specify a rollup fcn for leaf vals.

 ${f nest.map}$ - evaluate the nest operator, returning an assoc array.

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 maps array of keys.

map.values - returns the maps array of vals.

map.entries - returns the maps array of entries (key-values objects).

 $\mathbf{map.forEach}$ - calls the specified fcn for each entry in the map.

 ${\bf d3.set}$ - a shim for ES6 sets, since objects are not hashes!

 ${\bf set.has}$ - returns true if the set contains the specified val.

set.add - adds the specified val.

set.remove - removes the specified val.

set.values - returns the sets array of vals.

set.forEach - calls the specified fcn for each val in the set.

Math

d3.random.normal - generate a random number with a normal dist.

 ${f d3.random.logNormal}$ - generate a random number with a log-normal dist.

d3.random.irwinHall - generate a random number with an IrwinHall dist.

d3.transform - compute the standard form of a 2D matrix transform.

String Formatting

d3.format - format a number as a string.

 ${\bf d3.formatPrefix}$ - returns the [SI prefix] for the specified val and precision.

d3.requote - quote a string for use in a regular expression.

d3.round - rounds a val to some digits after the decimal point.

Loading External Resources

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 fcn.

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 - request a text file.

d3.json - request a JSON blob.

d3.html - request an HTML doc fragment.

d3.xml - request an XML doc fragment.

d3.csv - request a comma-separated values (CSV) file.

d3.tsv - request a tab-separated values (TSV) file.

CSV Formatting (d3.csv)

d3.csv - request a comma-separated values (CSV) file.

 ${\bf d3.csv.parse}$ - parse a CSV string into objects using the header row.

 ${\bf d3.csv.parseRows}$ - parse a CSV string into tuples, ignoring the header row.

d3.csv.format - format an array of objects into a CSV string.
 d3.csv.formatRows - format an array of tuples into a CSV string.

d3.tsv - request a tab-separated values (TSV) file.

 ${f d3.tsv.parse}$ - parse a TSV string into objects using the header row.

 ${f d3.tsv.parseRows}$ - parse a TSV string into tuples, ignoring the header row.

d3.tsv.format - format an array of objects into a TSV string.
d3.tsv.formatRows - format an array of tuples into a TSV string.

Colors

d3.rgb - specify a color in RGB space.

 ${\bf rgb.brighter}$ - increase RGB channels by some exp. factor.

 ${\bf rgb.darker}$ - decrease RGB channels by some exp. factor.

rgb.hsl - convert from RGB to HSL.

rgb.toString - convert an RGB color to a string.

d3.hsl - specify a color in HSL space.

hsl.brighter - increase lightness by some exp. factor.

hsl.darker - decrease lightness by some exp. factor.

hsl.rgb - convert from HSL to RGB.

hsl.toString - convert an HSL color to a string.

d3.lab - specify a color in L*a*b* space.

lab.brighter - increase lightness by some exp. factor.

lab.darker - decrease lightness by some exp. factor.

lab.rgb - convert from L*a*b* to RGB.

lab.toString - convert a L*a*b* color to a string.

d3.hcl - specify a color in HCL space.

hcl.brighter - increase lightness by some exp. factor.

hcl.darker - decrease lightness by some exp. factor.

hcl.rgb - convert from HCL to RGB.

hcl.toString - convert an HCL color to a string.

Namespaces

d3.ns.prefix - access/extend known XML namespaces.

d3.ns.qualify - qualify a prefixed name, such as "xlink:href".

Internals

d3.functor - create a fcn that returns a constant.

 ${f d3.rebind}$ - rebind an inherited getter/setter method to a subclass.

d3.dispatch - create custom event dispatchers.

dispatch.on - register an event listener.

dispatch - dispatch an event to registered listeners.

d3.scale (Scales)

Quantitative

d3.scale.linear - construct a linear quantitative scale.

linear - get the range val corresp to a given domain val.

linear.invert - get the domain val corresp to a given range val.
linear.domain - get/set the scale's input domain.

linear.range - get/set the scale's output range.

 ${f linear.rangeRound}$ - set the scale's output range, and enable rounding.

linear.interpolate - get/set the scale's output interpolator.
linear.clamp - enable/disable clamping of the output range.
linear.nice - extend the scale domain to nice round numbers.
linear.ticks - get representative values from the input domain.
linear.tickFormat - get a formatter for displaying tick vals.
linear.copy - create a new scale from an existing scale.

d3.scale.sqrt - construct a quantitative scale with a square root trans.

d3.scale.pow - construct a quantitative scale with an exponential trans.

pow - get the range val corresp to a given domain val.
pow.invert - get the domain val corresp to a given range val.
pow.domain - get/set the scale's input domain.

pow.range - get/set the scale's output range.

 ${\bf pow.rangeRound}$ - set the scale's output range, and enable rounding.

pow.interpolate - get/set the scale's output interpolator.
pow.clamp - enable/disable clamping of the output range.
pow.nice - extend the scale domain to nice round numbers.

pow.ticks - get representative values from the input domain.

pow.tickFormat - get a formatter for displaying tick vals. pow.exponent - get/set the exponent power.

pow.copy - create a new scale from an existing scale. d3.scale.log - construct a quantitative scale with an

logarithmic trans.

log - get the range val corresp to a given domain val.

log.invert - get the domain val corresp to a given range val.

log.domain - get/set the scale's input domain.

log.range - get/set the scale's output range.

log.rangeRound - set the scale's output range, and enable rounding.

log.interpolate - get/set the scale's output interpolator.

log.clamp - enable/disable clamping of the output range.

log.nice - extend the scale domain to nice powers of ten. log.ticks - get representative values from the input domain.

log.tickFormat - get a formatter for displaying tick vals.

log.copy - create a new scale from an existing scale.

d3.scale.quantize - construct a linear quantitative scale with a discrete output range.

quantize - get the range val corresp to a given domain val. quantize.domain - get/set the scale's input domain.

quantize.range - get/set the scale's output range (discrete). **quantize.copy** - create a new scale from an existing scale.

d3.scale.threshold - construct a threshold scale with a discrete output range.

threshold - get the range val corresp to a given domain val. threshold.domain - get/set the scale's input domain.

threshold.range - get/set the scale's output range (discrete).
threshold.copy - create a new scale from an existing scale.
d3.scale.quantile - construct a quantitative scale mapping to quantiles.

quantile - get the range val corresp to a given domain val.
quantile.domain - get/set the scale's input domain (discrete).
quantile.range - get/set the scale's output range (discrete).
quantile.quantiles - get the scale's quantile bin thresholds.
quantile.copy - create a new scale from an existing scale.
d3.scale.identity - construct a linear identity scale.
identity - the identity fcn.

identity.invert - equivalent to identity; the identity fcn.
identity.domain - get/set the scale's domain and range.
identity.range - equivalent to identity.domain.
identity.ticks - get representative values from the domain.
identity.tickFormat - get a formatter for displaying tick vals.
identity.copy - create a new scale from an existing scale.

Ordinal

d3.scale.ordinal - construct an ordinal scale.

ordinal - get the range val corresp to a given domain val.

ordinal.domain - get/set the scale's input domain.

ordinal.range - get/set the scale's output range.

 ${\bf ordinal.rangePoints}$ - divide a continuous output range for discrete points.

ordinal.rangeBands - divide a continuous output range for discrete bands.

 ${\bf ordinal.range Round Bands - divide \ a \ continuous \ output} \\ {\bf range \ for \ discrete \ bands.}$

ordinal.rangeBand - get the discrete range band width.ordinal.rangeExtent - get the min and max values of the output range.

ordinal.copy - create a new scale from an existing scale.

 ${\bf d3.scale.category10}$ - constr an ord scale w/ 10 categ cols.

d3.scale.category20 - constr an ord scale w/ 20 categ cols.

d3.scale.category20b - constr an ord scale w/ 20 categ cols.

d3.scale.category20c - constr an ord scale w/ 20 categ cols.

d3.svg (SVG)

Shapes

d3.svg.line - create a new line generator.

line - generate a piecewise linear curve, as in a line chart.

line.x - get/set the x-coord accessor.

line.y - get/set the y-coord accessor.

line.interpolate - get/set the interpolation mode.

line.tension - get/set the cardinal spline tension.

line.defined - control whether the line is def at a given point.

d3.svg.line.radial - create a new radial line generator.

line - generate a piecewise linear curve, as in a polar line chart.

line.radius - get/set the rad accessor.

line.angle - get/set the angle accessor.

 ${\bf line. defined}$ - control whether the line is def at a given point.

 ${\bf d3.svg.area}$ - create a new area generator.

 ${\bf area}$ - generate a piecewise linear area, as in an area chart.

area.x - get/set the x-coord accessors.

area.x0 - get/set the x0-coord (baseline) accessor.

area.x1 - get/set the x1-coord (topline) accessor.

area.y - get/set the y-coord accessors.

area.y0 - get/set the y0-coord (baseline) accessor.

area.y1 - get/set the y1-coord (topline) accessor.

area.interpolate - get/set the interpolation mode.

area.tension - get/set the cardinal spline tension.

area.defined - control whether the area is def at a given point.

d3.svg.area.radial - create a new area generator.

area - generate a piecewise linear area, as in a polar area chart.

area.radius - get/set the rad accessors.

 ${\bf area.innerRadius}$ - get/set the inner rad (baseline) accessor.

area.outerRadius - get/set the outer rad (topline) accessor.

 $\bf area. angle$ - get/set the angle accessors.

area.startAngle - get/set the angle (baseline) accessor.

area.endAngle - get/set the angle (topline) accessor.

area.defined - control whether the area is def at a given point.

 ${f d3.svg.arc}$ - create a new arc generator.

arc - generate a solid arc, as in a pie/donut chart.

arc.innerRadius - get/set the inner rad accessor.

arc.outerRadius - get/set the outer rad accessor.

 ${\bf arc.startAngle}$ - ${\bf get/set}$ the start angle accessor.

arc.endAngle - get/set the end angle accessor.

arc.centroid - compute the arc centroid.

d3.svg.symbol - create a new symbol generator.

symbol - generate categ symbols, as in a scatterplot.

symbol.type - get/set the symbol type accessor.

symbol.size - get/set the symbol size (in square px) accessor.

d3.svg.symbolTypes - the array of supported symbol types.

d3.svg.chord - create a new chord generator.

chord - generate a quadratic Bzier connecting two arcs, as in a chord diagram.

chord.radius - get/set the arc rad accessor.

chord.startAngle - get/set the arc start angle accessor.

chord.endAngle - get/set the arc end angle accessor.

chord.source - get/set the source arc accessor.

chord.target - get/set the target arc accessor.

d3.svg.diagonal - create a new diagonal generator.

diagonal - generate a two-dim Bzier connector, as in a node-link diagram.

diagonal.source - get/set the source point accessor.

diagonal.target - get/set the target point accessor.

diagonal.projection - get/set an optional point transform.

 ${\bf d3.svg.diagonal.radial}$ - create a new diagonal generator.

diagonal - generate a two-dim Bzier connector, as in a node-link diagram.

Axes

d3.svg.axis - create a new axis generator.

axis - creates/updates an axis for the given sel. or trans.

axis.scale - get/set the axis scale.

axis.orient - get/set the axis orientation.

axis.ticks - control how ticks are generated for the axis.

axis.tickValues - specify tick values explicitly.

axis.tickSubdivide - optionally subdivide ticks uniformly.

 $\label{eq:axis.tickSize-specify} \begin{tabular}{ll} \bf axis.tickPadding - specify padding b/w ticks and tick labels. \end{tabular}$

 ${\bf axis.tickFormat}$ - override the tick formatting for labels.

Controls

 ${\bf d3.svg.brush}$ - click and drag to select one- or two-dim regions.

brush - creates or updates a brush for the given sel. or trans.

brush.x - get/set the brushs x-scale.

brush.y - get/set the brushs y-scale.

brush.extent - get/set the brushs extent.

brush.clear - reset the brush extent.

brush.empty - returns true if the brush extent is empty.

brush.on - respond to events when the brush is moved.

d3.time (Time)

Time Formatting

d3.time.format - create a new local time formatter for a given specifier.

format - format a date into a string.

format.parse - parse a string into a date.

d3.time.format.utc - create a new UTC time formatter for a given specifier.

d3.time.format.iso - the ISO 8601 UTC time formatter.

Time Scales

d3.time.scale - construct a linear time scale.

scale - get the range val corresp to a given domain val.

scale.invert - get the domain val corresp to a given range val.

scale.domain - get/set the scale's input domain.

scale.range - get/set the scale's output range.

 ${\bf scale.rangeRound}$ - set the scale's output range, and enable rounding.

scale.interpolate - get/set the scale's output interpolator.
scale.clamp - enable/disable clamping of the output range.
scale.ticks - get representative values from the input domain.
scale.tickFormat - get a formatter for displaying tick vals.
scale.copy - create a new scale from an existing scale.

Time Intervals

d3.time.interval - a time interval in local time.

interval - alias for interval.floor.

interval.range - returns dates within the specified range.

interval.floor - rounds down to the nearest interval.

interval.round - rounds up/down to the nearest interval.

interval.ceil - rounds up to the nearest interval.

interval.offset - returns a date offset by some interval.

interval.utc - returns the UTC-equivalent time interval.

d3.time.day - every day (12:00 AM).

d3.time.days - alias for day.range.

d3.time.dayOfYear - computes the day num.

d3.time.hour - every hour (e.g., 1:00 AM).

d3.time.hours - alias for hour.range.

d3.time.minute - every minute (e.g., 1:02 AM).

d3.time.minutes - alias for minute.range.

d3.time.month - every month (e.g., February 1, 12:00 AM).

d3.time.months - alias for month.range.

d3.time.second - every second (e.g., 1:02:03 AM).

d3.time.seconds - alias for second.range.

d3.time.sunday - every Sunday.

d3.time.sundays - alias for sunday.range.

d3.time.sundayOfYear - computes the sun-based wk num.

d3.time.monday - every Monday.

d3.time.mondays - alias for monday.range.

d3.time.mondayOfYear - computes the mon-based wk num.

d3.time.tuesday - every Tuesday.

d3.time.tuesdays - alias for tuesday.range.

d3.time.tuesdayOfYear - computes the tues-based wk num.

d3.time.wednesday - every Wednesday.

d3.time.wednesdays - alias for wednesday.range.

 ${\bf d3.time.wednesdayOfYear\ \text{-}\ computes\ the\ wed-based\ wk}$ num

d3.time.thursday - every Thursday.

d3.time.thursdays - alias for thursday.range.

d3.time.thursdayOfYear - computes the thurs-based wk num.

d3.time.friday - every Friday.

d3.time.fridays - alias for friday.range.

d3.time.fridayOfYear - computes the fri-based wk num.

d3.time.saturday - every Saturday.

d3.time.saturdays - alias for saturday.range.

d3.time.saturdayOfYear - computes the sat-based wk num.

d3.time.week - alias for sunday.

d3.time.weeks - alias for sunday.range.

d3.time.weekOfYear - alias for sundayOfYear.

d3.time.year - every year (e.g., January 1, 12:00 AM).

d3.time.years - alias for year.range.

d3.layout (Layouts)

Bundle

d3.layout.bundle - construct a new default bundle layout.bundle - apply Holten's hierarchical bundling algorithm to edges.

Chord

d3.layout.chord - produce a chord diagram from a matrix of relationships.

chord.matrix - get/set the matrix data backing the layout. **chord.padding -** get/set the angular padding b/w chord

chord.sortGroups - get/set the comparator fcn for groups. chord.sortSubgroups - get/set the comparator fcn for

chord.sortChords - get/set the comparator fcn for chords (z-order).

chord.chords - retrieve the computed chord angles. **chord.groups** - retrieve the computed group angles.

Cluster

d3.layout.cluster - cluster entities into a dendrogram. **cluster.sort** - get/set the comparator fcn for sibling nodes. cluster.children - get/set the accessor fcn for child nodes. cluster.nodes - compute the cluster layout and return the array of nodes.

cluster.links - compute the parent-child links b/w tree nodes. cluster.separation - get/set the spacing fcn b/w neighboring nodes.

cluster.size - get/set the layout size in x and y.

Force

d3.layout.force - position linked nodes using physical sim. force.on - listen to updates in the computed layout positions. force.nodes - get/set the array of nodes to layout. force.links - get/set the array of links b/w nodes. force.size - get/set the layout size in x and y. force.linkDistance - get/set the link distance. force.linkStrength - get/set the link strength. **force.friction -** get/set the friction coefficient. force.charge - get/set the charge strength.

force.gravity - get/set the gravity strength.

force.theta - get/set the accuracy of the charge interaction.

force.start - start/restart the sim when the nodes change.

force.resume - reheat the cooling parameter and restart sim.

force.stop - immediately terminate the sim.

force.alpha - get/set the layout's cooling parameter.

force.tick - run the layout sim one step.

force.drag - bind a behavior to nodes to allow interactive dragging.

Hierarchy

d3.layout.hierarchy - derive a custom hierarchical layout implementation.

hierarchy.sort - get/set the comparator fcn for sibling nodes. hierarchy.children - get/set the accessor fcn for child nodes. hierarchy.nodes - compute the layout and return the array of nodes.

hierarchy.links - compute the parent-child links b/w tree

hierarchy.value - get/set the val accessor fcn.

hierarchy.revalue - recompute the hierarchy vals.

Histogram

counts/probabilities.

d3.layout.histogram - construct a new default histogram. histogram - compute the dist of data using quantized bins. histogram.value - get/set the val accessor fcn. histogram.range - get/set the considered val range. **histogram.bins** - specify how values are organized into bins. histogram.frequency - compute the dist as

Pack

d3.layout.pack - produce a hierarchical layout using recursive circle-packing.

pack.sort - control the order in which sibling nodes are traversed.

pack.children - get/set the children accessor fcn.

pack.nodes - compute the pack layout and return the array of nodes.

pack.links - compute the parent-child links b/w tree nodes. pack.value - get/set the val accessor used to size circles. pack.size - specify the layout size in x and y.

pack.padding - specify the layout padding in (approx) px.

Partition

d3.layout.partition - recursively partition a node tree into a sunburst or icicle.

partition.sort - control the order in which sibling nodes are traversed.

partition.children - get/set the children accessor fcn.

partition.nodes - compute the partition layout and return the array of nodes.

partition.links - compute the parent-child links b/w tree nodes.

partition.value - get/set the val accessor used to size circles. partition.size - specify the layout size in x and y.

Pie

 ${f d3.layout.pie}$ - construct a new default pie layout. pie - compute the start/end angles for arcs in a pie/donut chart. pie.value - get/set the val accessor fcn. pie.sort - control the clockwise order of pie slices. pie.startAngle - get/set the overall start angle of the pie.

pie.endAngle - get/set the overall end angle of the pie. Stack

d3.layout.stack - construct a new default stack layout. stack - compute the baseline for each series in a stacked bar/area chart.

stack.values - get/set the values accessor fcn per series.

stack.order - control the order in which series are stacked.

stack.offset - specify the overall baseline algorithm.

stack.x - get/set the x-dimension accessor fcn. stack.y - get/set the y-dimension accessor fcn.

stack.out - get/set the output fcn for storing the baseline.

Tree

d3.layout.tree - position a tree of nodes tidily.

tree.sort - control the order in which sibling nodes are traversed.

tree.children - get/set the children accessor fcn.

tree.nodes - compute the tree layout and return the array of

tree.links - compute the parent-child links b/w tree nodes. tree.separation - get/set the spacing fcn b/w neighboring nodes.

tree.size - specify the layout size in x and y.

Treemap

d3.layout.treemap - use recursive spatial subdivision to display a tree of nodes.

treemap.sort - control the order in which sibling nodes are traversed.

treemap.children - get/set the children accessor fcn.

treemap.nodes - compute the treemap layout and return the array of nodes.

treemap.links - compute the parent-child links b/w tree nodes. treemap.value - get/set the val accessor used to size treemap

treemap.size - specify the layout size in x and y.

treemap.padding - specify the padding b/w a parent and its children.

treemap.round - enable/disable rounding to exact px.

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/set the geographic proj.

path.context - get/set the render context.

path.pointRadius - get/set the radius to display point features.

path.area - compute the proj area of a given feature.

path.centroid - compute the proj centroid of a given feature.

path.bounds - compute the proj bounds of a given feature.

d3.geo.circle - create a circle generator.

circle - generate a piecewise circle as a Polygon.

circle.origin - specify the origin in lat and long.

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 lat-long bounding box for a

feature.

d3.geo.centroid - compute the spherical centroid of a feature. d3.geo.distance - compute the great-arc dist b/w two points.

d3.geo.interpolate - interpolate b/w 2 points along a great

d3.geo.length - compute the length of a line string/the circumf. of a polygon.

Projections

d3.geo.projection - create a standard proj from a raw proj. projection - project the specified location.
projection.invert - invert the proj for the specified point.
projection.rotate - get/set the proj's three-axis rotation.
projection.center - get/set the proj's center location.
projection.translate - get/set the proj's translation position.
projection.scale - get/set the proj's scale factor.
projection.clipAngle - get/set the rad of the proj's clip circle.
projection.clipExtent - get/set the proj viewport clip ext
(px)

projection.precision - get/set the precision threshold for adaptive resampling.

projection.stream - wrap the specified stream listener, projecting input geometry.

d3.geo.projectionMutator - create a standard proj from a mutable raw proj.

d3.geo.albers - the Albers equal-area conic proj.
albers.parallels - get/set the proj's two standard parallels.
d3.geo.albersUsa - a composite Albers proj for the US.
d3.geo.azimuthalEqualArea - the azimuthal equal-area proj.
d3.geo.azimuthalEquidistant - the azimuthal equidist proj.
d3.geo.conicConformal - the conic conformal projection.
d3.geo.conicEquidistant - the conic equidist projection.

d3.geo.conicEqualArea - the conic equal-area (Albers) proj.

 $\begin{tabular}{ll} \bf d3.geo.equirectangular - the \ equirect(plate \ carr\`{e}e) \ proj. \end{tabular}$

d3.geo.gnomonic - the gnomonic proj.

 ${\bf d3.geo.mercator}$ - the spherical Mercator proj.

 ${\bf d3.geo.orthographic}$ - the azimuthal orthographic proj.

 ${\bf d3.geo.stereographic}$ - the azimuthal stereographic proj.

 ${\bf d3.geo.azimuthal Equal Area.raw}$ - the raw azim eq-area proj.

d3.geo.azimuthalEquidistant.raw - the azim equidist proj.
d3.geo.conicConformal.raw - the raw conic conformal proj.

d3.geo.conicEquidistant.raw - the raw conic equidist proj.

d3.geo.conicEqualArea.raw - the raw conic equal-area (Albers) proj.

 $\begin{tabular}{ll} \bf d3.geo.equirectangular.raw - the raw equirect (plate carrèe) \\ proj. \end{tabular}$

d3.geo.gnomonic.raw - the raw gnomonic proj.

 ${\bf d3.geo.mercator.raw}$ - the raw Mercator proj.

 ${\bf d3.geo.orthographic.raw}$ - the raw azimuthal orthographic proj.

 ${\bf d3.geo.stereographic.raw}$ - the raw azimuthal stereographic proj.

d3.geo.transverseMercator.raw - the raw transverse Mercator proj.

Streams

 ${f d3.geo.stream}$ - convert a GeoJSON object to a geometry stream.

stream.point - indicate an x, y (and optionally z) coord.
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.geom (Geometry)

Voronoi

d3.geom.voronoi - compute the Voronoi diagram for the specified points.

d3.geom.delaunay - compute the Delaunay triangulation for the specified points.

Quadtree

d3.geom.quadtree - constructs a quadtree for an array of points.

quadtree.add - add a point to the quadtree.

quadtree.visit - recursively visit nodes in the quadtree.

Polygon

d3.geom.polygon polygon.area polygon.centroid -

polygon.clip -

Hull

d3.geom.hull -

d3.behavior (Behaviors)

Drag

d3.behavior.drag - drag.origin -

drag.on -

Zoom

d3.behavior.zoom -

zoom.on -

zoom.scale -

zoom.translate -

zoom.scaleExtent -

zoom.x -

zoom.y -