

## DataVis Theme Specification

Draft build20220730

### theme-file

*theme-file*: '{ theme-file-element-list? }'

*theme-file-element-list*: (theme-file-element,)\* theme-file-element

*theme-file-element*: theme-definition | canvas-definition | palette-definition | layout-definition |

group-property | desc-property

*group-property*: "group": "group-name"

*desc-property*: "desc": "string"

*group-name*: "string"

### theme-definition

*theme-definition*: "theme": theme-object | "theme": theme-array | "theme-list": theme-list

*theme-object*: '{ theme-property-list? }'

*theme-property-list*: (theme-property,)\* theme-property

*theme-array*: '[' theme-object-list? ']'

*theme-object-list*: (theme-object,)\* theme-object

*theme-list*: '{ compact-theme-list? }'

*compact-theme-list*: (compact-theme,)\* compact-theme

*compact-theme*: "theme-name": theme-object

*theme-name*: string

*canvas-name*: string

*layout-name*: string

*palette-name*: string

### canvas-definition

*canvas-definition*: "canvas": canvas-object | "canvas": canvas-array | "canvas-list": canvas-list

*canvas-object*: '{ canvas-property-list? }'

*canvas-property-list*: (canvas-property,)\* canvas-property

*canvas-array*: '[' canvas-object-list? ']'

*canvas-object-list*: (canvas-object,)\* canvas-object

*canvas-list*: '{ compact-canvas-list? }'

*compact-canvas-list: (compact-canvas,)\* compact-canvas*

*compact-canvas: "canvas-name": canvas-object*

### **palette-definition**

*palette-definition: "palette": palette-object | "palette": palette-array | "palette-list": palette-list*

*palette-object: '{' palette-property-list? '}'*

*palette-property-list: (palette-property,)\* palette-property*

*palette-array: '[' palette-object-list? ']'*

*palette-object-list: (palette-object,)\* palette-object*

*palette-list: '{' compact-palette-list? '}'*

*compact-palette-list: (compact-palette,)\* compact-palette*

*compact-palette: "palette-name": palette-object | palette-major-value*

### **layout-definition**

*layout-definition: "layout": theme-object | "layout": theme-array | "layout-list": theme-list*

### **theme-property**

*theme-property: "name": theme-name | "base": theme-name | "canvas": (canvas-name | canvas-object) | "layout": (layout-name | layout-object) | "palette": (palette-name | palette-object) | "background": fill-value | level-base-property-list | "axis": axis-value | "grid": grid-value | "legend": legend-value | "margins": margins-value*

### **canvas-property**

*canvas-property: "name": canvas-name | "background": fill-value | "axis-rect": fill-value | "text": text-value | "line": line-value | "gridline": line-value*

### **palette-property**

*palette-property: "name": palette-name | "major": palette-major-value | "minor": palette-minor-value*

*palette-major-value: color-array*

*palette-minor-value: color-array | color-value*

*color-array: '[' color-value-list? ']'*

*color-value-list: (color-value,)\* color-value*

### **level-base-property-list**

*level-base-property-list: (level-base-property,)\* level-base-property*

*level-base-property: "line": line-value | "text": text-value | "title": text-value | "label": text-value*

## **axis-value**

*axis-value*: *null-value* | *axis-object*

*axis-object*: '{ *axis-property-list*? }'

*axis-property-list*: (*axis-property*,)\* *axis-property*

*axis-property*: "background": *fill-value* | *level-base-property-list* | *baseline-property* | *tick-property* |

*subtick-property* | *special-axis-property*

*baseline-property*: "baseline": *line-value*

*tick-property*: "tick": (*null-value* | *tick-or-subtick-value*)

*subtick-property*: "subtick": (*null-value* | *tick-or-subtick-value*)

*special-axis-property*: ("x" | "y" | "left" | "top" | "right" | "bottom"): *axis-value*

## **grid-value**

*grid-value*: *null-value* | *grid-object*

*grid-object*: '{ *grid-property-list*? }'

*grid-property-list*: (*grid-property*,)\* *grid-property*

*grid-property*: *level-base-property-list* | *major-property* | *minor-property* | *zeroline-property* |

*special-grid-property*

*special-grid-property*: ("x" | "y" | "left" | "top" | "right" | "bottom"): *grid-value*

## **legend-value**

*legend-value*: TODO

## **tick-or-subtick-value**

*tick-or-subtick-value*: '{ *tick-or-subtick-subproperty-list*? }'

*tick-or-subtick-subproperty-list*: (*tick-or-subtick-subproperty*,)\* *tick-or-subtick-subproperty*

*tick-or-subtick-subproperty*: *line-color* | *line-width* | *line-style* | *tick-or-subtick-length* |

*tick-or-subtick-side*

*tick-or-subtick-length*: "length": *number*

*tick-or-subtick-side*: "side": ("in" | "out" | "both")

## **color-value**

*color-value*: *rgb-value* | *hex-value* | "transparent" | *svg-color-name*

*rgb-value*: "rgb(*n256*,*n256*,*n256*)"

*n256*: [0-255]

*hex-value*: "#RGB" | "#RRGGBB" | "#AARRGGBB" | "#RRRGGBBB" | "#RRRRGGGGBBBB"

R: [0-9A-F] G: [0-9A-F] B: [0-9A-F] A: [0-9A-F]

svg-color-name: "black" | "white" | "red" | ... see [Color Codes Compact \(december.com\)](https://december.com/color-codes-compact)

### **fill-value**

*fill-value*: *null-value* | *color-value* | *fill-object*

*fill-object*: TODO

### **line-value**

*line-value*: *null-value* | *line-color* | *line-width* | *line-style* | *line-object*

*line-color*: *color-value*

*line-width*: *float-number*

*line-style*: "solid" | "dash" | "dot" | "dashdot" | "dashdotdot"

*line-object*: '{ *line-property-list*? }'

*line-property-list*: (*line-property*)\* *line-property*

*line-property*: "color": *line-color* | "width": *line-width* | "style": *line-style*

### **text-value**

*text-value*: *null-value* | *text-color* | *text-size* | *text-object*

*text-color*: *color-value*

*text-size*: *float-number*

*text-object*: '{ *text-property-list*? }'

*text-property-list*: (*text-property*)\* *text-property*

*text-property*: "color": *text-color* | "size": *text-size* | "family": *string* | "face": *text-face-value*

*text-face-value*: *text-face* | *text-face-list*

*text-face*: "bold" | "italic" | "underline"

*text-face-list*: '[' (*text-face*)\* *text-face* ']'

### **margins-value**

*margins-value*: *null-value* | *margins-list* | *margins-object*

*margins-list*: '[' (*number*)\* *number* ']'

*margins-object*: '{ *margins-property-list*? }'

*margins-property-list*: (*margins-property*)\* *margins-property*

*margins-property*: "left": *number* | "top": *number* | "right": *number* | "bottom": *number*

### **null-value**

*null-value*: null | "NA" | "N.A." | "N/A"