Neon Dashboard Configuration Guide (Development Version)

Version 1.2

Created by the Next Century Neon Development Team

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Configuration Introduction

To run the Neon Dashboard, create a configuration file at app/config/config.yaml or app/config/config.json. If config.yaml is present, config.json will be ignored.

Sample configuration files are available in the git repository at app/config/sample.config.yaml and app/config/sample.config.json.

Notes on file protections:

- The configuration values can in theory be set by anyone.
 However, the config.json is within the war at
 app/config/config.yaml or app/config.json. Under tomcat, this file
 is within the webapps directory. Therefore, the file will need to
 be modified by someone with write privileges on that directory.
- The user of the GTD has the option to save the work that they do. This data is saved in a Derby database, which is written to the savedStates directory located under the root Tomcat directory in Linux and under the bin directory on Windows. This can only be written if the process that runs Tomcat (often a tomcat7 user) has write privileges on that directory. If you want to be able to save the state, an administrator will need to make that directory writable by the appropriate user. In the future, the location that the Derby database will be written to will be configurable.

Configuration File Options

datasets - An array of dataset objects representing datasets available through the NEON Dashboard. Each dataset objects has the following properties:

- name
- datastore
- hostname
- layout
- connectOnLoad
- databases
- relations
- mapConfig
- linkyConfig
- options

Please see **Dataset Object Options** for details.

layouts - An object containg names of visualization layouts each mapped to an array of visualization objects. These define the structure, orientation, and default options for visualizations in a dashboard.
Layouts here are available for the objects in the datasets property. Each visualization object has the following properties:

- **type** (Required)
- name (Optional)

- icon (Optional)
- **sizeX** (Optional)
- **sizeY** (Optional)
- **bindings** (Optional)

Undefined properties are set to their default values. Please see **Visualization Object Options** for details.

visualizations - (Optional) An array of visualization objects that updates the objects in the default list of visualizations available through the "Add Visualization" button in the navigation bar. Each visualization object has the following properties:

- **type** (Required)
- **name** (Optional)
- icon (Optional)
- **sizeX** (Optional)
- **sizeY** (Optional)
- exclude (Optional)

Undefined properties are set to their default values. Please see **Visualization Object Options** for details.

dashboard - (Optional) Miscellaneous properties. Please seeDashboard Options for details.

externalServices - (Optional) Properties for linking the Neon Dashboard to external applications through web-intents-like services.

Please see External Services Options for details.

userale - (Optional) Properties for logging user interaction throughDraper Laboratory's User-ALE library. Please see User-ALE Optionsfor details.

For more information about the User-ALE library, visit their GitHub Page at https://github.com/draperlaboratory/user-ale.

opencpu - (Optional) Properties for adding behavior from the Neon OpenCPU library to the Timeline. Please see OpenCPU Options for details.

For more information about OpenCPU, visit their website at https://www.opencpu.org/.

help - (Optional) Location paths to guides and videos to link to in the navigation bar help menu. Please see Help Options for details.

files - (Optional) File paths to other configuration files containing additional datasets and layouts. This option is available for users who want to save datasets and/or layouts in files separate from the config.json file. Please see **File Options** for details.

theme - (Optional) The starting dashboard theme. Options: light-green, dark-green. Default: light-green.

Dataset Object Options

Example:

```
"datasets": [{
    "name": "Earthquakes",
    "datastore": "mongo",
    "hostname": "localhost",
    "layout": "default",
    "databases": [{
        "name": "test",
        "prettyName": "Default DB",
        "tables": [{
            "name": "earthquakes",
            "prettyName": "Earthquakes",
            "fields": [{
                "columnName": " id",
                "hide": true
            }],
            "mappings": {
                "date": "time",
                "latitude": "latitude",
                "longitude": "longitude",
                "line category": "type",
                "bar_x_axis": "net",
                "y axis": "mag",
```

```
"color_by": "magType",
                     "size_by": "mag",
                     "sort_by": "time",
                     "count_by": "net"
                }
            }]
        }],
        "mapConfig": {
            "myMap1": {
                "bounds" : {
                     "left": -180,
                     "bottom": -90,
                     "right": 180,
                     "top": 90
                }
        }
}
```

name - A label for the dataset displayed in the UI.

datastore - The type of database server:

- mongo
- sparksql
- elasticsearch

hostname - The host name/address of the database server.

layout - (Optional) The name of the visualization layout created when
the dataset is displayed. The name corresponds to the layout in the
layouts property. Default: "default".

connectOnLoad - (Optional) Whether this dataset is automatically displayed when the dashboard is first loaded. If multiple datasets have this value set to true, only the first one with this field will be loaded. Default: false.

databases - An array of database objects each with the following properties:

- name
- prettyName
- tables

Databases will appear in dropdown boxes in the order they are listed.

Please see **Database Object Options**] for details.

relations - (Optional) An array of relation objects. Each relation obect has one or more properties whose names each correspond to a database in the dataset ("database property"). Each database property is mapped to another object which has one or more properties whose names each correspond to a table in the database ("table property"). Each table property is mapped to the name of a field in that table. The primary use

of this feature is to sync filters on like fields in different tables/collections.

Example:

For more information about relations, please see the Neon Dashboard User Guide at https://github.com/NextCenturyCorporation/neon-gtd/wiki/Neon-Dashboard-User-Guide.

mapConfig - (Optional) An object that maps Map visualization names to configuration options each with the following properties:

bounds

Please see Map Configuration Options for details.

linkyConfig - (Optional) Link configuration options for with the following properties:

- mentions
- hashtags
- urls
- linkTo

Please see **Linky Configuration Options** for details.

options - (Optional) Miscellaneous configuration options with the following properties:

- colorMaps
- mapBaseLayer
- checkForCoordinateValidation

Please see **Option Object Options** for details.

Database Object Options

name - The name of the database.

prettyName - (Optional) A label for the database displayed in the UI.

Default: The database **name**.

tables - An array of table/collection objects each with the following properties:

- name
- prettyName
- fields
- mappings
- enableRowSelection

Tables will appear in dropdown boxes in the oreder they are listed. Please see **Table Object Options** for details.

Table Object Options

name - The name of the table.

prettyName - (Optional) A label for the table displayed in the UI.
Default: The table name.

fields - (Optional) An array of field objects with the following properties:

- columnName
- prettyName
- hide

Fields will appear the Data Table in the order they are listed. Please see **Field Object Options** for details.

mappings - (Optional) A mapping of specific configuration properties to field names. These fields will be used by any instance of the specified visualization unless that instance has an overriding field data binding. The following properties are available:

- date The date field used by the Timeline, Ops Clock, Line Chart, Graph, Filter Builder, News Feed, and Map.
- **latitude** The latitude field used by the Map.
- **longitude** The longitude field used by the Map.
- **line_category** The group field used by the Line Chart.
- bar_x_axis The X-axis field used by the Bar Chart.
- **y_axis** The Y-axis field used by the Bar Chart and Line Chart.
- **x_attr** The X-axis field used by the Scatter Plot.
- **y_attr** The Y-axis field used by the Scatter Plot.
- **color_by** The coloring field used by the Map.
- **size_by** The sizing field used by the Map.
- nodeColorBy The nodes coloring field used in the map.
- lineColorBy The lines coloring field used in the map.
- **sort_by** The sorting field used by the Data Table.
- count by The field used by the Aggregation Table.
- tags The tag field used by the Text Cloud.
- graph_nodes The nodes field used by the Graph.
- graph_links The links field used by the Graph.
- **graph_node_name** The nodes name field used by the Graph.
- **graph_link_name** The links name field used by the Graph.
- **graph_node_size** The nodes size field used by the Graph.
- graph_link_size The links size field used by the Graph.

- graph_flag The flag field used by the Graph.
- graph_flag_mode The flag mode used by the Graph. Options: result, linked, or all.
- graph_tooltip_id_label A label for the id field in the tooltip used by the Graph.
- graph_tooltip_data_label A label for the data field in the tooltip used by the Graph.
- graph_tooltip_name_label A label for the name field in the tooltip used by the Graph.
- **graph_tooltip_size_label** A label for the size field in the tooltip used by the Graph.
- graph_tooltip_flag_label A label for the flag field in the tooltip used by the Graph.
- graph_tooltip_source_name_label A label for the source name field in the tooltip used by the Graph.
- **graph_tooltip_target_name_label** A label for the target name field in the tooltip used by the Graph.
- graph_tooltip_source_size_label A label for the source size field in the tooltip used by the Graph.
- graph_tooltip_target_size_label A label for the target size field in the tooltip used by the Graph.
- newsfeed_name A name for the news feed used by the News Feed and Graph.
- newsfeed_type The type of news feed used by the News Feed and Graph.
- newsfeed text The text field used by the Graph.
- **newsfeed_author** The nodes name field used by the Graph.

- allCoordinates A list of objects containing mappings of all coordinate fields used by the map upon row selection in the Data Table. Each mapping has the following properties:
 - latitude A latitude field
 - longitude A longitude field

enableRowSelection - (Optional) Whether selecting a row in the Data Table results in a new point to be added to the Map that displays the location. Default: false.

Field Object Options

columnName - The name of the field in the table.

prettyName - (Optional) A label for the field displayed in the UI.
Default: The field name.

hide - (Optional) If true, will hide the field in the Data Table. Default: false.

Map Configuration Options

bounds - The starting bounds (the zoom and position of the map) for each Map using the latitude and longitude coordinates set in the following properties:

- top Number between -90 and 90.
- bottom Number between -90 and 90.

- **left** Number between -180 and 180.
- right Number between -180 and 180.

If no bounds are configured, each map will set its starting bounds to the minimum required to display all of its current data.

Map Layer Object Options

name - (Optional) A label for the map layer displayed in the UI. Default:The map layer table.

database - The name of the database.

table - The name of the table.

type - The type of map layer:

- points
- heatmap
- cluster
- nodes and arrows

active - (Optional) Whether filtering on this map layer starts enabled. Filtering on map layers can be enabled or disabled through a Map's options menu. If false, a layer will not restrict its data to a user-selected geo box. Default: false.

limit - (Optional) A number for the data record limit on all queries for

this map layer because quieres resulting in too many data records can cause the dashboard to crash. Default: 1000.

latitudeMapping - (Optional) The name of the latitude field. Default: latitude.

longitudeMapping - (Optional) The name of the longitude field.Default: longitude.

colorBy - (Optional) The name of the field used to color points on this map layer. Used by points layer and cluster layers. Its recommended that only fields with a small set of discrete values be used. Default: All points are the same color.

sizeBy - (Optional) The name of the fields used to size points on the map layer. Only used by points and heatmap layers. Its recommended that only numeric fields be used. Default: All points are the same size.

defaultColor - (Optional) The default color of points on the points and cluster layers. Default: #00ff00.

gradient - (Optional) Whether a gradient is applied to a points layer. If true, the points are colored in a gradient from red to blue based on the date specified in the **sizeBy** property. Default: false.

popupFields - (Optional) An array of fields to display when a cluster is selected. Default: The number of points in the cluster.

sourceLatitudeMapping - (Optional) The name of the source latitude field used on a node layer. Default: from.latitude.

sourceLongitudeMapping - (Optional) The name of the source longitude field used on a node layer. Default: from.longitude.

targetLatitudeMapping - (Optional) The name of the target latitude
field used on a node layer. Default: to.latitude.

targetLongitudeMapping - (Optional) The name of the target longitude field used on a node layer. Default: to.longitude.

nodeWeightMapping - (Optional) The name of the weight field used on a node layer to determine the size of the nodes. Default: wgt.

lineWeightMapping - (Optional) The name of the weight field used on a node layer to determine the size of the lines. Default: wgt.

nodeColorBy - (Optional) The name of the field that is used on a node layer to color nodes by.

lineColorBy - (Optional) The name of the field used on a node layer to
color lines by.

nodeDefaultColor - (Optional) The default node color used on a nodes
layer.

lineDefaultColor - (Optional) The default line color used on a nodes

layer.

Linky Configuration Options

mentions - (Optional) Whether mentions should be linked. Default:

false.

hashtags - (Optional) Whether hashtags should be linked. Default: false.

urls - (Optional) Whether urls should be linked. Default: false.

linkTo - (Optional) Where mentions and hashtags should link to.

Available options are:

twitter

instagram

• github

Default: twitter

Option Object Options

colorMaps - (Optional) A list of objects containing color mappings for

specific fields in a database. Each item contains a database name with

an object containing table names. Each table name contains a list of

fields in that table with a list of field values to colors. These values will

be used to color points in the map on the points layer if the field is

defined in **colorBy** with the correct database and table name. Any missing field values will use the **defaultColor** property. Example:

```
{
    "datasets": [{
        "options": {
             "colorMaps": {
                 "myDatabase": {
                     "myTable": {
                          "myField": {
                              "fieldA": "#123456",
                              "fieldB": "#654321"
                          }
                     }
                 }
        }
    }]
}
```

mapBaseLayer - (Optional) The Map's base layer configuration options
with the following properties:

• color: dark or light

• **protocol**: http or https

Default: light and http

checkForCoordinateValidation - (Optional) The validation check the
Map should apply to coordinates using the following properties:

- **valid_numbers**: Check for numbers within the valid coordinate range. Use this if some records have nulls, strings, or out of range numbers for latitude/longitude.
- null_values: Check for null coordinates only. This is generally slower than valid_numbers. The only reason to use this is that on systems that have indexes to speed up range queries (e.g., MongoDB), the valid_numbers check will return the results in order by latitude/longitude. If the map limit is less than the number of records that match the current filter, this will cause the points to fill the map from the bottom or top. If you aren't experiencing this problem, then valid_numbers will probably give better performance.

Visualization Object Options

Example:

```
"name": "Map",
"icon": "Map64",
"type": "map",
"sizeX": 4,
"sizeY": 4,
"bindings": {
    "title": "myTitle"
```

```
}
```

type - The type of visualization:

• Aggregation Table: aggregationTable

• Bar Chart: barChart

• Data Table: dataTable

• Gantt Chart: ganttChart

• Filter Builder: filterBuilder

• Line Chart: lineChart

• Map: **map**

• Network Graph: networkGraph

• News Feed: **newsFeed**

• Ops Clock: opsClock

• Scatter Plot: scatterPlot

• Suburst Chart: sunburstChart

• Text Cloud: textCloud

• Timeline: timeline

name - (Optional) A label for the visualization displayed in the "AddVisualization" popup and filters in the Filter Tray.

icon - (Optional) The name of the icon for the visualization displayed in the "Add Visualization" popup.

sizeX - (Optional) The starting width of the visualization. By default, the

width is divided into 24 columns. Therefore, a visualization with a **sizeX** of 6 would have a width of 1/3rd of the screen.

sizeY - (Optional) The starting height of the visualization which is directly proportional to the width.

exclude - (Optional) Whether to exclude the visualization from the list available through the "Add Visualization" popup.

bindings - (Optional) The data bindings used by the visualization. Whenever visualizations are created (by loading a dashboard or dataset) they will use the data bindings defined in the layouts property of the configuration file to set their starting database, table, fields, and other options. If no data binding is set for a database, table, or field, a visualization will use the first option in the appropriate dropdown (or no option). We suggest that you configure bindings for visualization objects in the layouts property so the dashboard shows the desired data whenever the corresponding dataset is loaded.

The following bindings are available for all visualizations except the Filter Builder:

- **title** The title displayed in the UI for the visualization
- unsharedFilterField The unshared filter field
- unsharedFilterValue The unshared filter value

The following bindings are also available for specific visualizations:

- aggregationField The aggregation field for the Aggregation
 Table, Bar Chart, or Line Chart, used for non-count aggregation
 types
- **aggregationType** The aggregation type for the Aggregation Table, Bar Chart, or Line Chart (count, average, sum, max, min)
- **arcValue** The value to display of the last arc in the Suburst Chart. Options: count or total. Defaults to count.
- **colorCode** The HTML color code to use for a Map points or cluster layer
- colorField The color field for the Gantt Chart or Map
- config An array containing the configuration of the data layers for a Line Chart or Map (Please see Multiple Layer
 Visualization Configuration for details)
- **contentField** The content field for the News Feed
- database The database for a single layer visualization
- dataField The data field for the Text Cloud
- dateField The date field
- endField The end field for the Gantt Chart
- feedName The name of the News Feed (for the Network Graph, the name of the News Feed to update with node selections)
- **feedType** The type of the News Feed (for the Network Graph, the type of the News Feed to update with node selections)
- **filterable** Whether a data layer in a multiple layer visualization is filterable by default
- **flagField** A boolean flag field for coloring and labeling nodes in the Network Graph

- **flagMode** The mode for the boolean flag field in the Network Graph (all, linked, result)
- gradientColorCode[1-5] The HTML color codes to use for a Map heatmap layer
- **granularity** The date granularity for the Line Chart or Timeline
- **groupField** The group field for the Aggregation Table, Bar Chart, or Line Chart
- **groupFields** A string of group fields separated by a comma for the Gantt Chart or Sunburst Chart
- latitudeField The latitude field for the Map
- longitudeField The longitude field for the Map
- **limit** The data record limit
- **lineColorCode** The HTML color code for lines in a Map nodes and arrows layer
- **lineColorField** The color field for lines in a Map nodes and arrows layer
- **lineSizeField** The color field for lines in a Map nodes and arrows layer
- linkedNodeField The field containing linked node IDs or arrays of node IDs for the Network Graph
- **linkedNameField** The field containing linked node names or arrays of node names for the Network Graph
- **linkedSizeField** The field containing linked node sizes or arrays of node sizes for the Network Graph
- nameField The node name field for the Network Graph
- nodeColorCode The HTML color code for nodes in a Map

- nodes and arrows layer
- nodeColorField The color field for nodes in a Map nodes and arrows layer
- **nodeField** The node ID field for the Network Graph
- nodeSizeField The color field for nodes in a Map nodes and arrows layer
- **overrideStartDate** The start date for the Timeline
- **overrideEndDate** The end date for the Timeline
- popupFields An array of fields to display in a popup in a Map cluster layer
- primaryTitleField The primary title field for the News Feed
- rowTitleField The row title field for the Gantt Chart
- secondaryTitleField The secondary title field for the News
 Feed
- selectedGroups A string of selected group fields separated by a comma for the Gantt Chart
- **show** Whether a data layer in a multiple layer visualization is shown by default
- sizeField The size field for the Map or Network Graph
- sourceLatitudeField The source latitude field for a Map nodes and arrows layer
- sourceLongitudeField The source longitude field for a Map nodes and arrows layer
- targetLatitudeField The target latitude field for a Map nodes and arrows layer
- targetLongitudeField The target longitude field for a Map nodes and arrows layer

- startField The start field for the Gantt Chart
- **subType** The line or marker type of the Scatter Plot (lines, markers, lines+markers)
- **table** The table for a single layer visualization
- **textField** The node text field for the Network Graph
- **tooltipDataLabel** The label for node data to show in tooltips in the Network Graph
- **tooltipFlagLabel** The label for flagged nodes to show in tooltips in the Network Graph
- **tooltipIdLabel** The label for node IDs to show in tooltips in the Network Graph
- **tooltipNameLabel** The label for node names to show in tooltips in the Network Graph
- **tooltipSizeLabel** The label for node sizes to show in tooltips in the Network Graph
- **tooltipSourceNameLabel** The label for source node names in links to show in tooltips in the Network Graph
- **tooltipTargetNameLabel** The label for target node names in links to show in tooltips in the Network Graph
- tooltipSourceSizeLabel The label for source node sizes in links to show in tooltips in the Network Graph
- **tooltipTargetSizeLabel** The label for target node sizes in links to show in tooltips in the Network Graph
- type The type of Map layer (points, cluster, heatmap, nodes and arrows) or Scatter Plot (scatter, heatmapScatter, histogramScatter)
- valueField The field to use for the total value for the Sunburst

Chart.

- xAxisField The x-axis field for the Scatter Plot
- yAxisField The y-axis field for the Scatter Plot

The following visualizations use the listed bindings:

- Aggregation table: groupField, aggregationType,
 aggregationField, limit
- Bar Chart: groupField, aggregationType, aggregationField,
 limit
- Gantt Chart: rowTitle-field, startField, endField, colorField, groupFields, selectedGroups
- Line Chart: config, granularity
- Map: config
- Network Graph: nodeField, nameField, sizeField, dateField, flagField, textField, linkedNodeField, linkedNameField, linkedSizeField, flagMode, tooltipIdLabel, tooltipDataLabel, tooltipNameLabel, tooltipSizeLabel, tooltipFlagLabel, tooltipSourceNameLabel, tooltipTargetNameLabel, tooltipSourceSizeLabel, tooltipTargetSizeLabel, feedName, feedType
- News Feed: dateField, primaryTitleField,
 secondaryTitleField, contentField, feedName, feedType
- Ops Clock: dateField
- Scatter Plot: type, subType, xAxisField, yAxisField, limit
- Sunburst: groupFields, valueField, arcValue
- Text Cloud: dataField

 Timeline: dateField, granularity, overrideStartDate, overrideEndDate

Multiple Layer Visualization Configuration

Example:

```
"layouts": {
    "myLayout": [{
        "type": "lineChart",
        "bindings": {
            "config": [{
                "name": "myDataLayerName1",
                "database": "myDatabase",
                "table": "myTable",
                "dateField": "myDateField",
                "aggregationType": "count"
            },{
                "name": "myDataLayerName2",
                "database": "myDatabase",
                "table": "myTable",
                "dateField": "myDateField",
                "aggregationType": "sum",
                "aggregationField": "myAggregationField",
                "groupField": "groupField"
            }],
```

```
} } }
```

Visualizations that have multiple data layers (the Line Chart and the Map) can have a **config** binding containing an array of objects for each data layer to be created. Each data layer object can have its own bindings as listed above. The following visualizations use the following bindings for data layer objects in **config**:

- Line Chart: dateField, aggregationType, aggregationField, groupField
- Map: type, limit, latitudeField, longitudeField, sourceLatitudeField, sourceLongitudeField, targetLatitudeField, targetLongitudeField, colorField, dateField, sizeField, colorCode, lineColorField, nodeColorField, lineSizeField, nodeSizeField, lineColorCode, nodeColorCode, gradientColorCode1, gradientColorCode2, gradientColorCode3, gradientColorCode4, gradientColorCode5, popupFields

Dashboard Options

gridsterColumns - (Optional) The width of the Neon Dashboard in gridster units. Default: 6.

gridsterMargins - (Optional) The margins for the visualizations in the

Neon Dashboard in pixels. Default: 10.

hideNavbarItems - (Optional) Whether to hide the buttons in the navigation bar, including the "Choose Dataset" and "Add Visualization" buttons. Default: false.

hideAdvancedOption - (Optional) Whether to hide all database, table, and field selection dropdowns in the options menus for all visualizations.
Default: false.

hideAddVisualizationsButton - (Optional) Whether to hide the "Add Visualizations" button. Default: false.

hideErrorNotifications - (Optional) Whether to hide the error notification popups for all visualizations . Default: false.

hideHeaders - (Optional) Whether to hide the headers containing the table name and options menu for all visualizations. Default: false.

hideFilterStatusTray - (Optional) Whether to hide the filter status menu in the navigation bar. Default: false.

hideCloseButton - (Optional) Whether to hide the close button for all visualizations. Default: false.

showVideoOnLoad - (Optional) Whether to show the help video when a page is loaded. Default: false.

showImport - (Optional) Whether to enable import in the navigation bar options menu. Default: false.

showExport - (Optional) Whether to enable export in the navigation bar options menu and in the options menu for all visualizations. Default: true.

translationKeys - (Optional) An object containing pairs of translation API names to an API key. The following APIs are currently supported:

• google

External Services Options

Example:

```
"externalServices": {
    "configList": ["./config/services.json", "http://l.
2.3.4:8080/config"],
    "imageDirectory": "./images",
    "fileProperties": {
        "url": "url",
        "name": "name",
        "image": "image",
        "services": "services"
    },
    "servicesMappings": {
```

```
"bounds": "geobounds",
    "date": "daterange",
    "point": "geoloc",
    "tags": "hashtag",
    "custom_number_1": "id",
    "custom_string_1": "user"
},
"argsMappings": {
    "bounds": {
        "geobounds": {
            "lat0": "minLat",
            "long0": "minLon",
            "lat1": "maxLat",
            "long1": "maxLon"
        }
    },
    "date": {
        "daterange": {
            "start": "startDate",
            "end": "endDate"
        }
    },
    "point": {
        "geoloc": {
            "lat": "latitude",
            "long": "longitude"
        }
    },
```

configList - The list of JSON configuration objects that contain registries of external intents-like services. These objects can either be read from JSON files available through a local or remote web server or be returned in responses from HTTP requests.

imageDirectory - The directory containing the images for the applications used in the links. This directory can be located on either a local or remote web server.

fileProperties - (Optional) An object containing the names of specific properties used for the applications in the JSON configuration:

• **url**: The name of the URL field containing the base URL of the application. Default: url

- name: The name of the application. Default: name
- **image**: The name of the image field containing the image for the application. Default: image
- **services**: The name of the object containing the list of available services for the application.

Example JSON configuration object for external services:

```
{
  "Google Maps": {
    "url": "https://www.google.com/maps",
    "name": "Google Maps",
    "image": "google-maps.png",
    "services": {
      "geoloc": "@{{geoloc.lat}},{{geoloc.long}},12z",
      "geobounds": "@{{geobounds.lat0}},{{geobounds.long0}}
,12z"
    }
  },
  "Twitter": {
    "url": "https://twitter.com",
    "name": "Twitter",
    "image": "twitter.png",
    "services": {
      "hashtag": "hashtag/{{hashtag}}",
      "user": "{{user}}"
  },
```

```
"My Application": {
    "url": "http://my-application",
    "name": "My Application",
    "image": "my-application.png",
    "services": {
      "daterange": "?date={{daterange.start}},{{daterange.e
nd}}",
      "geoloc": "?location={{geoloc.lat}},{{geoloc.long}}",
      "geobounds": "?bounds={{geobounds.lat0}}, {{geobounds.
long0}},{{geobounds.lat1}},{{geobounds.long1}}",
      "hashtag": "?hashtag={{hashtag}}",
      "id": "?id={{id}}}",
      "user": "?user={{user}}"
    },
  }
}
```

servicesMappings - An object containing Neon mappings and their equivalents from the "services" in the JSON configuration. Note that multiple Neon mappings can refer to the same service.

argsMappings - An object containing Neon mappings and the data expected by their equivalents from the "services" in the JSON configuration. The data may be an object containing the service argument and its equivalent Neon mapping:

```
{
```

```
"externalServices": {
    "argsMappings": {
        "tags": {
             "hashtag": "tags"
        }
    }
}
```

Alternatively, the data may be an object containing the service argument and another object containing properties of the service argument and their equivalent Neon mappings:

Each table can specify the Neon mappings for its own columns; please

see **Table Object Options** for details. The following mappings are automatically derived from other Neon mappings and thus do not have to be specified in the Neon configuration file:

- startDate Derived from date
- endDate Derived from date
- minLat Derived from latitude
- maxLat Derived from latitude
- minLon Derived from longitude
- maxLon Derived from longitude

User-ALE Options

loggingUrl - (Optional) The url of the User-ALE logging server. Default: http://192.168.1.100

toolName - (Optional) The name of your tool. Default: Neon Dashboard

toolVersion - (Optional) The version of your tool. No default.

elementGroups - (Optional) List of element groups used. Default:

```
[
"top",
"map_group",
"table_group",
"chart_group",
"query_group",
```

workerUrl - (Optional) File location of the User-ALE worker file.

Default: lib/user-ale/js/userale-worker.js

debug - (Optional) Whether to log messages to the console. Default: false.

sendLogs - (Optional) Whether to send logs to the **loggingUrl**. Default: false.

OpenCPU Options

enableOpenCpu - (Optional) Whether to enable OpenCPU. Default: false.

enableLogging - (Optional) Whether to enable logging. Default: false.

useAlerts - (Optional) Whether to use alerts. Default: false.

enableAnomalyDetection - (Optional) Whether to enable anomaly detection. Default: false.

enableStl2 - (Optional) Whether to enable STL2 . Default: false.

enableMmpp - (Optional) Whether to enable MMPP. Default: false.

Help Options

guide - (Optional) File location of a guide to link to in the navigation bar help menu.

video - (Optional) Location of a video to link to in the navigation bar help menu.

File Options

datasets - (Optional) List of JSON file locations containing an objectwith a dataset property that has the same options as Dataset ObjectOptions.

layouts - (Optional) List of JSON file locations containing other layouts.Each file has the following properties:

- name: The name of the layout
- layout: List of visualization objects with the same properties as
 Visualization Object Options. Example:

```
"name": "earthquakes",

"layout": [{
    "sizeX": 2,
```

```
"sizeY": 2,
    "type": "timeline-selector",
    "bindings": {
        "date-field": "'time'"
    }
}, {
        "sizeX": 4,
        "sizeY": 2,
        "type": "query-results-table"
}]
}
```