

Neon Dashboard Configuration Guide

Version 1.1.5

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Configuration Introduction

To run the Neon Dashboard, create a JSON 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**
- **mapLayers**
- **lineCharts**
- **mapConfig**
- **linkyConfig**
- **options**

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

layouts - An object containing 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:

- **name**
- **icon**
- **type**
- **sizeX**
- **sizeY**
- **minSizeX**
- **minSizeY**
- **bindings**

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

visualizations - An array of visualization objects representing visualizations available through the “Add Visualization” button in the navigation bar. Please see **Visualization Object Options** for details.

dashboard - (Optional) Miscellaneous properties. Please see **Dashboard 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 through Draper Laboratory’s User-ALE library. Please see **User-ALE Options** for details.

For more information about the User-ALE library, visit <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 <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"
    }
}
}],
"lineCharts": {
    "myLineChart1" : [{
        "name": "Earthquake Magnitude over Time",
        "database": "test",
        "table": "earthquakes",
        "xAxis": "time",
        "yAxis": "mag",
        "aggregation": "sum",
        "category": "net",
        "active": true
    }]
},
"mapConfig": {
    "myMap1": {
        "bounds" : {
            "left": -180,
            "bottom": -90,
            "right": 180,
            "top": 90
        }
    }
},
"mapLayers": {
```

```

    "myMap1": [{
      "name": "Earthquakes Points",
      "database": "test",
      "table": "earthquakes",
      "type": "points",
      "limit": 5000,
      "latitudeMapping": "latitude",
      "longitudeMapping": "longitude",
      "colorBy": "magType",
      "sizeBy": "mag",
      "active": true
    }]
  }
}]
}

```

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 object 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:

```
{
  "datasets": [{
    "relations": [{
      "database1": {
        "tableA": "fieldX",
        "tableB": "fieldY"
      },
      "database2": {
        "tableC": "fieldZ"
      }
    }]
  }]
}
```

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

mapLayers - (Optional) An object that maps Map visualization names to arrays of map layer configuration objects each with the following properties:

- **name**
- **database**
- **table**
- **type**
- **active**
- **limit**
- **latitudeMapping**
- **longitudeMapping**
- **colorBy**
- **sizeBy**
- **defaultColor**
- **gradient**
- **popupFields**
- **sourceMapping**
- **targetMapping**
- **weightMapping**
- **nodeColorBy**
- **lineColorBy**
- **nodeDefaultColor**
- **lineDefaultColor**

Please see **Map Layer Object Options** for details.

lineCharts - (Optional) An object that maps Line Chart visualization names to arrays of line chart configuration objects each with the following properties:

- **database**
- **table**
- **active**
- **name**
- **xAxis**
- **aggregation**
- **yAxis**

- **category**

Please see **Line Chart Object Options** for details.

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**
- **checkForNullCoordinates**

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 order 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 in 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 queries 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.

sourceMapping - (Optional) The name of the source field used on a node layer. The field must be an object containing **latitudeMapping** and **longitudeMapping**. Default: to.

targetMapping - (Optional) The name of the target field used on a node layer. The field must be an object containing **latitudeMapping** and **longitudeMapping**. Default: from.

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

nodeColorBy - (Optional) The name of the field contained in both **sourceMapping** and **targetMapping** 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.

Line Chart Object Options

Example:

```
"lineCharts": {
  "lineChart1": [
    {
      "database": "test",
      "table": "earthquakes",
      "active": true,
      "name": "Quakes",
      "xAxis": "time",
      "aggregation": "sum",
      "yAxis": "mag",
      "category": "magType"
    }, {
      "database": "test",
      "table": "twitter",
      "active": false,
      "name": "twitter",
      "xAxis": "created_at",
      "aggregation": "count"
    }
  ],
  "lineChart2": [
    {
      "database": "test",
      "table": "earthquakes",
      "active": false,
      "name": "Earthquakes",
      "xAxis": "time",
      "aggregation": "count",
      "category": "magType"
    }
  ]
}
```

database - The name of the database.

table - The name of the table.

active - (Optional) Whether filtering on this line chart starts enabled. Filtering on line charts can be enabled or disabled through a Line Chart visualization options menu. If false, a line chart won't affect other visualization's filters. Default: true.

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

xAxis - The name of the x-axis field used to draw the line chart.

aggregation - The line chart aggregation type. Options:

- count
- sum
- average
- minium
- maximum

yAxis - The line chart y-axis field used to draw the line chart. This field is optional if the **aggregation** is "count".

category - (Optional) The category field used to draw groups on the line chart.

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

checkForNullCoordinates - (Optional) Whether the Map should check for null coordinates.

Default: false.

Visualization Object Options

Example:

```
{
  "name": "Map",
  "icon": "img/visualizations/Map64.png" ,
  "type": "map",
  "sizeX": 4,
  "sizeY": 4,
  "minSizeX": 2,
  "minSizeY": 2,
  "bindings": {}
}
```

name - (Optional) A label for the visualization displayed in the “Add Visualization” popup.

icon - (Optional) The file path to the icon for the visualization displayed in the “Add Visualization” popup.

type - The type of visualization:

- Aggregation Table: **count-by**
- Bar Chart: **barchart**
- Data Table: **query-results-table**
- Gantt Chart: **gantt-chart**
- Filter Builder: **filter-builder**
- Line Chart: **linechart**
- Map: **map**

- Network Graph: **directed-graph**
- News Feed: **newsfeed**
- Ops Clock: **circular-heat-form**
- Scatter Plot: **plotly-graph**
- Suburst Chart: **sunburst**
- Text Cloud: **tag-cloud**
- Timeline: **timeline-selector**

sizeX - The starting width of the visualization. By default, the width is divided into 6 columns. Therefore, a visualization with a **sizeX** of 2 would have a width of 1/3rd of the screen.

sizeY - The starting height of the visualization.

minSizeX - (Optional) The minimum width of the visualization. Note that most visualizations do not support a width of less than 2. Default: 2.

minSizeY - (Optional) The minimum height of the visualization. Note that most visualizations do not support a width of less than 2. Default: 2.

bindings - (Optional) The data bindings used by the visualization. Whenever the visualization is created - either by selecting a dataset (in the **layouts** property) or through the “Add Visualization” popup (in the **visualizations** property) - it will use its data bindings to set its starting database, table, and fields. If no data binding is set for an option, the visualization will use the first option in the appropriate dropdown. We suggest that you only configure bindings for visualization objects in the **layouts** property.

The following bindings are available:

- **bind-title** - The title displayed in the UI for the visualization
- **bind-database** - The database
- **bind-table** - The table
- **bind-date-field** - The date field
- **bind-granularity** - The date granularity for the Line Chart or Timeline
- **bind-x-axis-field** - The x-axis field for the Bar Chart or Scatter Plot
- **bind-y-axis-field** - The y-axis field for the Bar Chart or Scatter Plot

- **bind-group-field** - The group field for the Aggregation Table
- **bind-aggregation** - The aggregation type for the Aggregation Table or Bar Chart
- **bind-aggregation-field** - The secondary aggregation field for the Aggregation Table
- **bind-tag-field** - The tag field for the Text Cloud
- **bind-limit** - The data record limit
- **bind-filter-field** - The unshared filter field
- **bind-filter-value** - The unshared filter value
- **bind-feed-name** - The name of the News Feed (for the Network Graph, the name of the News Feed to update with node selections)
- **bind-feed-type** - The type of the News Feed (for the Network Graph, the type of the News Feed to update with node selections)
- **bind-primary-title-field** - The primary title field for the News Feed
- **bind-secondary-title-field** - The secondary title field for the News Feed
- **bind-content-field** - The content field for the News Feed
- **bind-config** - A name for a Line Chart or Map corresponding to its lineCharts or mapLayers configuration
- **bind-start-field** - The start field for the Gantt Chart
- **bind-end-field** - The end field for the Gantt Chart
- **bind-color-field** - The color field for the Gantt Chart
- **bind-row-title-field** - The row title field for the Gantt Chart
- **bind-group-fields** - A string of group fields separated by a comma for the Gantt Chart or Sunburst Chart
- **bind-selected-groups** - A string of selected group fields separated by a comma for the Gantt Chart
- **override-start-date** - The start date
- **override-end-date** - The end date
- **graph-type** - The type of Scatter Plot (scatter, heatmapScatter, histogramScatter)
- **sub-type** - The line or marker type of the Scatter Plot (lines, markers, lines+markers)
- **bind-value-field** - The field to use for the total value for the Sunburst Chart.
- **bind-arc-value** - The value to display of the last arc in the Suburst Chart. Options: count or total. Defaults to count.
- **bind-count-field** - Deprecated. Please use bind-group-field instead.

- **bind-head-field** - Deprecated. Please use bind-primary-title-field instead.
- **bind-name-field** - Deprecated. Please use bind-secondary-title-field instead.
- **bind-text-field** - Deprecated. Please use bind-content-field instead.
- **limit-count** - Deprecated. Please use bind-limit instead.
- **bind-attr-x** - Deprecated. Please use bind-x-axis-field instead.
- **bind-attr-y** - Deprecated. Please use bind-y-axis-field instead.

All visualizations except the Filter Builder, Line Chart, Map, Network Graph, and Scatter Plot use the **bind-database** and **bind-table** bindings. All visualizations except the Filter Builder, Gantt Chart, Line Chart, Map, and Scatter Plot use the **bind-title** binding. The following visualizations use the listed bindings:

- Aggregation table: **bind-group-field**, **bind-aggregation**, **bind-aggregation-field**, **bind-filter-field**, **bind-filter-value**, **bind-limit**
- Bar Chart: **bind-x-axis-field**, **bind-y-axis-field**, **bind-aggregation**, **bind-limit**
- Gantt Chart: **bind-row-title-field**, **bind-start-field**, **bind-end-field**, **bind-color-field**, **bind-group-fields**, **bind-selected-groups**
- Line Chart: **bind-config**, **bind-granularity**
- Map: **bind-config**
- Network Graph: **bind-feed-name**, **bind-feed-type**
- News Feed: **bind-date-field**, **bind-primary-title-field**, **bind-secondary-title-field**, **bind-content-field**, **bind-feed-name**, **bind-feed-type**, **bind-filter-field**, **bind-filter-value**
- Ops Clock: **bind-date-field**
- Scatter Plot: **graph-type**, **sub-type**, **bind-x-axis-field**, **bind-y-axis-field**, **bind-limit**, **bind-filter-field**
- Sunburst: **bind-group-fields**, **bind-value-field**, **bind-arc-value**
- Text Cloud: **bind-tag-field**, **bind-filter-field**, **bind-filter-value**
- Timeline: **bind-date-field**, **bind-granularity**, **override-start-date**, **override-end-date**

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://1.2.3.4:8080/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"
        }
    },
    "tags": {
        "hashtag": "tags"
    },
    "custom_number_1": {
        "id": "custom_number_1"
    },
    "custom_string_1": {
        "user": "custom_string_1"
    }
}
}
}

```

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.end}}",
      "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:

```
{
  "externalServices": {
    "argsMappings": {
      "date": {
        "daterange": {
          "start": "startDate",
          "end": "endDate"
        }
      }
    }
  }
}
```

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",  
  "graph_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.

url - The OpenCPU url.

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 object with a **dataset** property that has the same options as **Dataset Object Options**.

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