**Oracle
DataRaker**

Configuration Guide

Release 3.8.0.3.0

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Contents

Chapter 1

Typographical Conventions

The following represents the styles applied to this guide.

Convention	Meaning
Bold	Bold text indicates a user interface element. Examples include window/page titles, keywords, and interactive elements such as menus, buttons, etc.
Hyperlink	A link to another section of the document or to an external document or website.
`Add this text`	Indicates something the user should enter in a field. Typically rendered as constant width font with a shaded background.
varname	Constant width italic indicates a user interface choice.
`constant width type in a shaded block.`	Used for code examples.
`constant width`	Example code in the midst of regular text.
NOTE: Note	A note providing a tip, suggestion, or a general information.
IMPORTANT: Note	A note with additional important information.
CAUTION: Note	A note of caution.

Chapter 2

DataRaker Overview

DataRaker is a SaaS offering (Software as a Service, aka Cloud Services) that provides analytical insight into the most critical business areas of a utility. DataRaker unlocks smart grid data and turns it into actionable insight for electric, gas, and water utilities.

The DataRaker platform has unmatched depth and breadth of proven support for utilities' most critical business areas. The rapidly expanding availability of smart grid data allows for powerful applications that extend far beyond meter data analytics. DataRaker provides Utilities with quick answers to most pressing questions regarding Meter to Bill, Revenue Protection, Distribution Planning, Demand Response, and Energy Efficiency.

Utilities are also faced with a rapidly evolving industry, fast growing Smart meter deployment, aging infrastructure, dispersed energy generation, and increasing expectations from their customers. Adapting to these factors with existing resources and systems likely requires significant modification to the current business model. The DataRaker application offers utilities a complete toolkit to gain insight into critical business areas and provides actionable results to address, improve, or mitigate a situation. DataRaker renders high-level snapshots of the meter install base's health, exceptions that are available for review, and detailed information about a specific attribute (such as, a meter, transformer, or feeder). DataRaker also supports customized analytics that are built to meet distinct customer needs.

This documentation describes the features and functionality of the DataRaker system.

Chapter 3

Configuration Overview

Some components in the DataRaker user interface are configured by editing XML that is accessible from the **Administer Configuration** page. The component configuration determines the options and views available to the user based on their group permissions and the role that is selected in the **Role** list in the **Global Filters** panel.

User Types and Roles

User permissions are based on the group to which they are assigned. There are two primary permission categories: non-power user and power user. Business class users are typically assigned to a non-power user group, which provides them with a streamlined user interface having only those features that they would need. More technical users are assigned to a power user group and given access to all user interface features.

NOTE: Only power users have access to view or edit configuration options.

Illustrated Configuration Settings

The **Administer Configuration** settings allow you to define certain user interface views and options. Each configuration option has a specific name that the user interface recognizes and applies based on the role and point type selected.

The following configuration settings are available:

Component Configured	Configuration Name	Description
1. Chart Colors	CHART_SETTING	Chart color settings configuration defines coloring for chart data.
2. Search Filter	FILTER_CONFIG	Defines the search options for each type.
3. Related Data	GOTO_INFO	The related data configuration defines the related types that should be displayed for the selected type (*e.g.*, an electric meter could have a line transformer and a premise as related points).
4. Map Point Information Pop-up	MAPS_INFO_POPUP	Settings for the point information pop-up balloons in the map.
5. Map Rendering	MAPS_RENDER_AS	Settings for the map based on role and point type.
6. Point Detail Information	POINT_INFO	Point information configuration defines the layout and data that appears in the point information tables.
7. Configuring Point Search Columns	POINT_SEARCH_COLUMN	Settings for the data columns that appear in the Explorer Filter Results grid.

Component Configured	Configuration Name	Description
8. Chart Panels (Rakes)	*RAKE*	Rake configuration defines the following: Chart labels on the panel title bar [A]. Which options are available in the chart panel drop-down lists [B]. Which chart panels are available based on the (user) Role and the (point) Type [C]. Which rakes open by default. **NOTE:** RAKE configuration determines what panels appear, but the appearance and behavior of some panels (*e.g.*, Text) is not configurable. See Configuring Chart Panels (Rakes) for details.

NOTE:

The **Explorer** page is accessed by selecting **Explore** > **Point** > **Data.** See the **Explore** section in the *OracleDataRaker Users Guide* for information.

Chapter 4

Configuring Color Settings

The data visualization charts can be customized by color and information displayed for specific roles and fact types (please know that each role must have its color setting configured individually.)

This section describes the options available to configure how facts, events, metrics, segments, and highlight colors appear within charts.

Creating CHART_SETTINGS Configuration

Chart coloring configuration is defined in the CHART_SETTINGS configuration setting.

Chart coloring is configured from the **Administer Configuration** page.

NOTE: Each Role must be configured separately.

---

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

   ---

3. ---
   NOTE: This step is only necessary if the **Config Name** list does not display the CHART_SETTINGS configuration. If it already exists, skip to Accessing CHART_SETTING XML.

   Click **Add** .

   The **Create Configuration** dialog will open.

4. Complete the following fields:

a) **Config Name**: select CHART_SETTINGS from the drop-down menu.

The **Config Name** list only contains the configuration settings that have not yet been defined.

b) **Config Description**: enter a description; for example, "CHART_SETTINGS configuration for the Billing Role."

c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring CHART_SETTINGS XML for more information about the configuration options.

d) **Status**: select **Active**.

5. Click **Save**.

Accessing CHART_SETTING XML

Chart settings may be configured from the **Administer Configuration** page. Only administrative users can change configuration settings.

Each Role has its own configuration.

1. Navigate through **Administer** > **Metadata** > **Configuration.**

The system will display the Administer Configuration page and display the results from the first Config Name menu option.

NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **CHART_SETTING**

3. Click **Get Config**.

The configuration will be displayed in a data table.

Table 1: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Config** popup dialog that allows you to view the configuration description. **NOTE:** The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Role Type Code:** the role's role type code.

Column Name	Description
	• **Config Name:** the name of the selected configuration.
	• **Config Description:** the description for the configuration.
	• **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
	• **Status:** states whether the configuration is currently active or inactive.
	• **Create Time:** the date and time when the configuration was created.
	• **Update Time:** the date and time when the configuration was last updated.
	Buttons:
	• **Edit**: changes the dialog to the **Manage Config** view, which allows you to change the description and status.
	• **Cancel**: closes the **View Config** dialog.
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. In the data table row, click the **XML** link.

    The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring CHART_SETTINGS XML

When configuring chart settings, it is important to note that chart configuration uses a default overwrite methodology for specific fact based colors. Therefore, if no color is given for a specific fact name, it will use a default color. Both default and non-default colors are defined in the same configuration file. Key colors have comments to the right of them separated by the "#" symbol. It is advised to leave the comments in and only alter the color codes themselves when making changes. The colors are defined using an RBG (Red/Blue/Green) color system.

> **NOTE:** RBG pallet color selector tools are widely available online or through typical desktop applications such as Paint. These applications provide the RGB codes for selected colors.

code block	description
`COLORS:`	Beginning of the `COLORS:` definition.
```factBasedColors:` Aggregated: "rgb(0, 114, 169)" # blue` Derived: "rgb(120, 120, 120)" # grey` Estimated: "rgb(120, 120, 90)" # greyish green` Interpolated: "rgb(238, 154, 0)" # orange```	`factBasedColors:` This section controls the specific fact color definitions. These are *optional*, and will overwrite the default colors for the facts. In the above example, any fact containing `Aggregated` will be blue. If it is desired to have consistent colors, factBasedColors should be given colors for each fact name following the example.
```eventColors:` - "rgb(0, 0, 102)"` - "rgb(0, 102, 0)"` - "rgb(102, 0, 0)"` - "rgb(32, 32, 32)"` - "rgb(153, 0, 76)"` - "rgb(153, 153, 0)"` - "rgb(0, 102, 102)"```	`eventColors:` This section is relevant for events, relations, and segments in the Fact Data Viewer, as well as flag panels in the Explorer page. It is advised to keep many colors defined in this section, because a chart will often contain many different events at once, which requires a large collection of colors. These are listed linearly along the chart's Y axis and legend, meaning that the order is maintained from top to bottom of the configuration list as it is within the chart itself. If

red is defined first, the first event type on the chart will be red.

```
metricColors:
 - "rgb(236, 219, 24)" # yellow for chart (weather)
 - "rgb(181, 168, 24)" # yellow for Y labels (weather axis)
 - "rgb(135, 206, 250)" # blue for last year
 - "rgb(0, 114, 169)" # color1 for chart
 - "rgb(120, 120, 120)" # alt color: color2 for chart
 - "rgb(238, 154, 0)" # alt color: color3 for chart
 - "rgb(120, 120, 90)" # alt color: color4 for chart
 - "rgb(238, 130, 0)" # alt color: color5 for chart
 - "rgb(120, 90, 120)" # alt color: color6 for chart
 - "rgb(215, 154, 0)" # alt color: color7 for chart
 - "rgb(77, 77, 77)" # MIN color
 - "rgb(77, 77, 77)" # MAX color
 - "rgb(77, 77, 77)" # MEDIAN color
 - "rgb(77, 77, 77)" # AVERAGE color
 - "rgb(190, 42, 42)" # 10th percentile color
 - "rgb(0, 238, 0)" # 90th percentile color
 - "rgb(190, 42, 42)" # low std dev color
 - "rgb(0, 238, 0)" # high std dev color
```

`metricColors`: This section contains the 'default' colors for metric based charts. Examples of metric based charts include the Benchmark and Metric panels, as well as all Metric type views in the Fact Data Viewer. It is important to note that the length of this list should remain constant. **Do not add or remove from this list**, only make changes to the colors themselves. The order of this list should not change. To adjust the colors, follow the comments to the right following the "#" symbol and change the RBG codes as desired. The second half of these are for chart `Aggregates` options like min, max, std dev, etc. The color of these aggregate lines is defined here.

```
bottomChartColors:
 - "rgb(9, 129, 154)" # light blue color for bottom chart series 1
 - "rgb(178, 34, 34)" #  red color for bottom chart series 2
 - "rgb(0, 255, 127)" # green color for bottom chart series 3
 - "rgb(147, 112, 219)" # purple color for bottom chart series 4
 - "rgb(0, 0, 0)" # black for power outs
```

`bottomChartColors`: This is specific to the Benchmark and Load Profile panels, as these panels have 2 charts (top and bottom). Additions and removals should typically not be necessary. To adjust the colors of the bars, simply change the RBG color codes for series 1-4. In the above example, element #5 is for power outs, which is specific to Benchmark. Items 1-4 are for bars, and #5 is for the event that can appear in the bottom chart.

```
segmentColors:
 - "rgb(0, 238, 0)"
 - "rgb(190, 42, 42)"
 - "rgb(0, 238, 0)"
 - "rgb(190, 42, 42)"
```

`segmentColors`: This section defines the colors for segments within many different chart types. These follow the same ordering rules as eventColors, meaning that whatever appears first in the list will appear first on the chart. To make changes, simply change the RBG color codes.

```
highlightColor:
 - "#FFFF00" # yellow color when dragging on a chart
```

`highlightColor`: Charts can be zoomed into by dragging on the chart face. The color that 'highlights' during this dragging action can be customized using this configuration line. In the above example it is yellow, but can be changed to any RBG color code.

Chapter 5

Configuring Search Filters

Filters configuration controls the drop-down list options for a standard search.

Search filter drop-down list options are defined in the *FILTER_CONFIG* configuration. Each role has its own filter configuration, which defines the filter options by point type. The configuration allows the user to search by point type facts and related points.

> **NOTE:** It is not possible to search by attributes such as address or customer name.

For example, an electric meter search could have the following options:

- Electric Meter (Point) ID
- Electric Meter Lookup
- Electric Meter Tag
- Electric Meter Name
- Line Transformer
- Bill Cycle
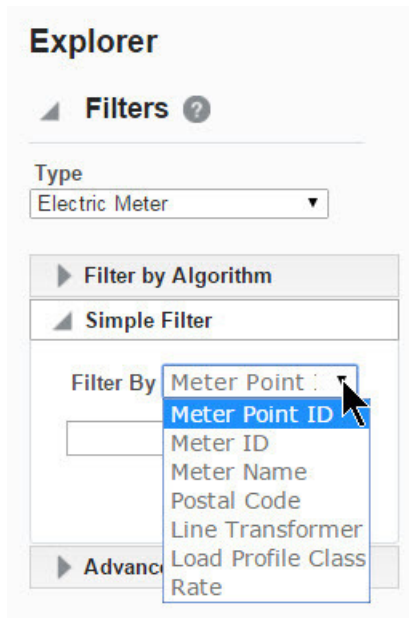
When configuring the point types and options, it is important to remember to make the labels business-related and easy for the end-user to understand; for example, the `Point ID` is commonly mapped to the Meter Tag or Badge Number, `ID` is typically the system-assigned identifier, and `Name` is commonly the utility's name for that entity. Finally, it is also possible to configure the entity relations that are available; for example, it is possible to make `Transformer` and `Bill Cycle` relations to a meter instead of information directly associated to the meter. See Configuring Related Data for more information about configuring relationships.

Search queries the database point table, which allows you to search for a point and facts that are related to it. Parent relationships are not available in the point table, which precludes a search for a parent object (such as, account).

NOTE: The additional fact filters are not configurable.

Creating FILTER_CONFIG Configuration

Standard search filters are configured from the **Administer Configuration** page.

NOTE: Each Role must be configured separately.

---

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3.

   NOTE: This step is only necessary if the **Config Name** list does not display the FILTER_CONFIG configuration. If it already exists, skip to Accessing FILTER_CONFIG XML.

   Click **Add**.

The **Create Configuration** dialog will open.

4. Complete the following fields:

    a) **Config Name**: select FILTER_CONFIG from the drop-down menu.

        The **Config Name** list only contains the configuration settings that have not yet been defined.

    b) **Config Description**: enter a description; for example, "FILTER_CONFIG configuration for the Billing Role."

    c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring FILTER_CONFIG XML for more information about the configuration options.

    d) **Status**: select **Active**, if necessary.

5. Click **Save**.

Accessing FILTER_CONFIG XML

1. Navigate through **Administer** > **Metadata** > **Configuration.**

The system will display the Administer Configuration page and display the results from the first Config Name menu option.

> **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **FILTER_CONFIG**

3. Click **Get Config**.

The configuration will be displayed as a row in a data table.

Table 2: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Configuration** popup dialog that allows you to view the configuration description. **NOTE:** The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Role Type Code:** the role's role type code. • **Config Name:** the name of the selected configuration.

Column Name	Description
	• **Config Description:** the description for the configuration.
	• **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
	• **Status:** states whether the configuration is currently active or inactive.
	• **Create Time:** the date and time when the configuration was created.
	• **Update Time:** the date and time when the configuration was last updated.
	Buttons:
	• **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status.
	• **Cancel**: closes the **View Configuration** dialog.
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. Click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring FILTER_CONFIG XML

The Search filters configuration XML defines the options that will appear on the drop-down list in **Standard** search tab.

Configuration Code Structure

The configuration code has the following general structure:

```
PointTypeCode1
 configuration settings...

PointTypeCode2
 configuration settings...
```

code block	description
| ```
EM:
    - table: POINT
      label: 'Meter ID'
      column: pointID
    - table: POINT
      label: 'Meter Lookup'
      column: pointLookup
    - table: POINT
      label: 'Meter Tag'
      column: pointTag
    - table: POINT
      label: 'Meter Name'
      column: pointName
    - table: FACT
      label: 'Rate'
      column: fact_lookup|RATE
``` | `EM:` search options provides search by:<br><br>• Electric Meter Point ID<br><br>• Electric Meter Lookup Code<br><br>• Electric Meter Name<br><br>• Rate Class<br><br>**NOTE:**<br>When the table is `FACT`, specify `column:` by `fact_lookup ｜ LOOKUP_VALUE`<br><br>When the table is `POINT`, specify `column:` by `column_name` |
| ```
GM:
    - table: POINT
``` | `GM:` search options provides search by: |

```
   label: 'Gas Meter ID'
   column: pointID
 - table: POINT
   label: 'Gas Meter Lookup'
   column: pointLookup
 - table: POINT
   label: 'Gas Meter Tag'
   column: pointTag
 - table: POINT
   label: 'Gas Meter Name'
   column: pointName
 - table: FACT
   label: 'Rate'
   column: fact_lookup|RATE
```

- Gas Meter Point ID

- Gas Meter ID

- Gas Meter Name

- Rate Class

```
WM:
 - table: POINT
   label: 'Water Meter ID'
   column: pointID
 - table: POINT
   label: 'Water Meter Lookup'
   column: pointLookup
 - table: POINT
   label: 'Water Meter Tag'
   column: pointTag
 - table: POINT
   label: 'Water Meter Name'
   column: pointName
 - table: FACT
   label: 'Rate'
   column: fact_lookup|RATE
```

`WM:` search options provides search by:

- Water Meter Point ID

- Water Meter ID

- Water Meter Name

- Rate Class

```
LINE_TX:
 - table: POINT
   label: 'Line Transformer ID'
   column: pointID
 - table: POINT
   label: 'Line Transformer Lookup'
   column: pointLookup
 - table: POINT
   label: 'Line Transformer Tag'
   column: pointTag
 - table: POINT
   label: 'Line Transformer Name'
   column: pointName
```

`LINE_TX:` search options provides search by:

- Line Transformer ID

- Line Transformer Lookup

- Line Transformer Tag

- Line Transformer Name

```
FEEDER:
 - table: POINT
   label: 'Feeder ID'
   column: pointID
 - table: POINT
   label: 'Feeder Lookup'
   column: pointLookup
 - table: POINT
   label: 'Feeder Tag'
   column: pointTag
 - table: POINT
   label: 'Feeder Name'
   column: pointName
```

`FEEDER:` search options provides search by:

- Feeder Point ID

- Feeder Lookup

- Feeder Tag

- Feeder Name

```
BILL_CYCLE:
 - table: POINT
   label: 'Bill Cycle ID'
   column: pointID
 - table: POINT
   label: 'Bill Cycle Lookup'
   column: pointLookup
 - table: POINT
   label: 'Bill Cycle Tag'
   column: pointTag
 - table: POINT
   label: 'Bill Cycle Name'
   column: pointName
```

`BILL_CYCLE:` search options provides search by:

- Bill Cycle ID

- Bill Cycle Lookup

- Bill Cycle Tag

- Bill Cycle Name

```
LP_CLASS:
 - table: POINT
   label: 'Load Profile Class ID'
```

`LP_CLASS:` search options provides search by:

- Load Profile Class ID

code block	description

``
    column: pointID
  - table: POINT
    label: 'Load Profile Class Lookup'
    column: pointLookup
  - table: POINT
    label: 'Load Profile Class Tag'
    column: pointTag
  - table: POINT
    label: 'Load Profile Class Name'
    column: pointName
``
	• Load Profile Class Lookup
	
	• Load Profile Class Tag
	
	• Load Profile Class Name

``
PRMS:
  - table: POINT
    label: 'Premise ID'
    column: pointID
  - table: POINT
    label: 'Premise Lookup'
    column: pointLookup
  - table: POINT
    label: 'Premise Tag'
    column: pointTag
  - table: POINT
    label: 'Premise Name'
    column: pointName
``
	`PRMS:` search options provides search by:
	
	• Premise ID
	
	• Premise Lookup
	
	• Premise Tag
	
	• Premise Name

``
ZIP:
  - table: POINT
    label: 'Zip Code ID'
    column: pointID
  - table: POINT
    label: 'Zip Code Lookup'
    column: pointLookup
  - table: POINT
    label: 'Zip Code Tag'
    column: pointTag
  - table: POINT
    label: 'Zip Code Name'
    column: pointName
``
	`ZIP:` search options provides search by:
	
	• Zip Code ID
	
	• Zip Code Lookup
	
	• Zip Code Tag
	
	• Zip Code Name

``
RATE:
  - table: POINT
    label: 'Rate ID'
    column: pointID
  - table: POINT
    label: 'Rate Lookup'
    column: pointLookup
  - table: POINT
    label: 'Rate Tag'
    column: pointTag
  - table: POINT
    label: 'Rate Name'
    column: pointName
``
	`RATE:` search options provides search by:
	
	• Rate Point ID
	
	• Rate Lookup
	
	• Rate Tag
	
	• Rate Name

Chapter 6

Configuring Related Data

The **GoTo: Related Points** component provides links, in the drawer menu, to points types related to the point being analyzed in the main pane. For example, if the point type in the main pane is an electric meter, the related points could be a Premise, a Line Transformer, etc. depending on the data and the configuration.

Creating GOTO_INFO Configuration

The **GoTo: Related Points** configuration is defined in the GOTO_INFO configuration setting.

The page is configured from the **Administer Configuration** page.

> **NOTE:** Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3. > **NOTE:** This step is only necessary if the **Config Name** list does not display the GOTO_INFO configuration. If it already exists, skip to Accessing GOTO_INFO XML.

   Click **Add**.

   The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select GOTO_INFO from the drop-down menu.

The **Config Name** list only contains the configuration settings that have not yet been defined.

b) **Config Description**: enter a description; for example, "GOTO_INFO configuration for the Billing Role."

c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring GOTO_INFO XML for more information about the configuration options.

d) **Status**: select **Active**.

5. Click **Save**.

Accessing GOTO_INFO XML

GoTo links are configured from the **Administer Configuration** page. Only administrative users can change configuration settings.

Each Role has its own configuration.

1. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **GOTO_INFO**

3. Click **Get Config**.

   The configuration will be displayed as a row in a data table.

Table 3: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Configuration** popup dialog that allows you to view the configuration description. **NOTE:** The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Role Type Code:** the role's role type code. • **Config Name:** the name of the selected configuration.

Column Name	Description
	• **Config Description:** the description for the configuration.
	• **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
	• **Status:** states whether the configuration is currently active or inactive.
	• **Create Time:** the date and time when the configuration was created.
	• **Update Time:** the date and time when the configuration was last updated.
	Buttons:
	• **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status.
	• **Cancel**: closes the **View Configuration** dialog.
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. In the data table row, click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring GOTO_INFO XML

Configuring GoTo links allows you to define the relationships between point type codes that can be used to quickly jump to related point information; such as parent or child points through the Drawer Menu.

Related Points

Parent Points

Feeder: 2414

Sibling Points

Line Transformer: 20332
Line Transformer: 20338
Line Transformer: 20334
Line Transformer: 20327
Line Transformer: 20328
Line Transformer: 20340
Line Transformer: 20337
Line Transformer: 20333
Line Transformer: 20342
Line Transformer: 20344

Child Points

Electric Meter: 17677
Electric Meter: 16853
Electric Meter: 18169
Electric Meter: 18668
Electric Meter: 16516
Electric Meter: 17511
Electric Meter: 18709

Like the other configurations, these are based on point type codes. The point type codes are broken into separate sections for parent and children points. These will create links to the parent or child of the point currently being viewed. The format is:

```
Point Type Code|Fact Type Code|Fact Lookup: Pretty Name.
```

code block	description

<pre>PARENT_POINTS:
    EM:
        - EM|RELATION|PRMS: 'Premise'
        - EM|RELATION|LINE_TX: 'Transformer'
 	
    GM:
        - GM|RELATION|PRMS: 'Premise'
        - GM|RELATION|ACCNT: 'Account'
 	
    LINE_TX:
        - LINE_TX|RELATION|FEEDER: 'Feeder'
 	
    PRMS:
        - PRMS|RELATION|ZIP: 'Postal Code'
 	
CHILDREN_POINTS:
    LINE_TX:
        - EM|RELATION|LINE_TX: 'Electric Meter'
 	
SIBLING_POINTS:
    EM:
        - ZIP|GM: 'Gas Meter'
    LINE_TX:
        - FEEDER|LINE_TX: 'Line Transformer'</pre>
	Any defined relationship can be added. Therefore, if you wish to have a link to the meter's parent City, you would add the following:
	
	<pre>PARENT_POINTS:
	 - EM|RELATION|CITY: 'City'</pre>
	The **Explorer** page would display links to the premise, line transformer, and city when viewing an electric meter.

Chapter 7

Configuring Map Popup Information

Map Popup Information provides configuration for the balloons that open when the object of focus is clicked in the map. The configuration consists of the balloon background color, text color, border color, and what data is displayed.

> **NOTE:** The table view will also display the same information as configured in the pop-up.
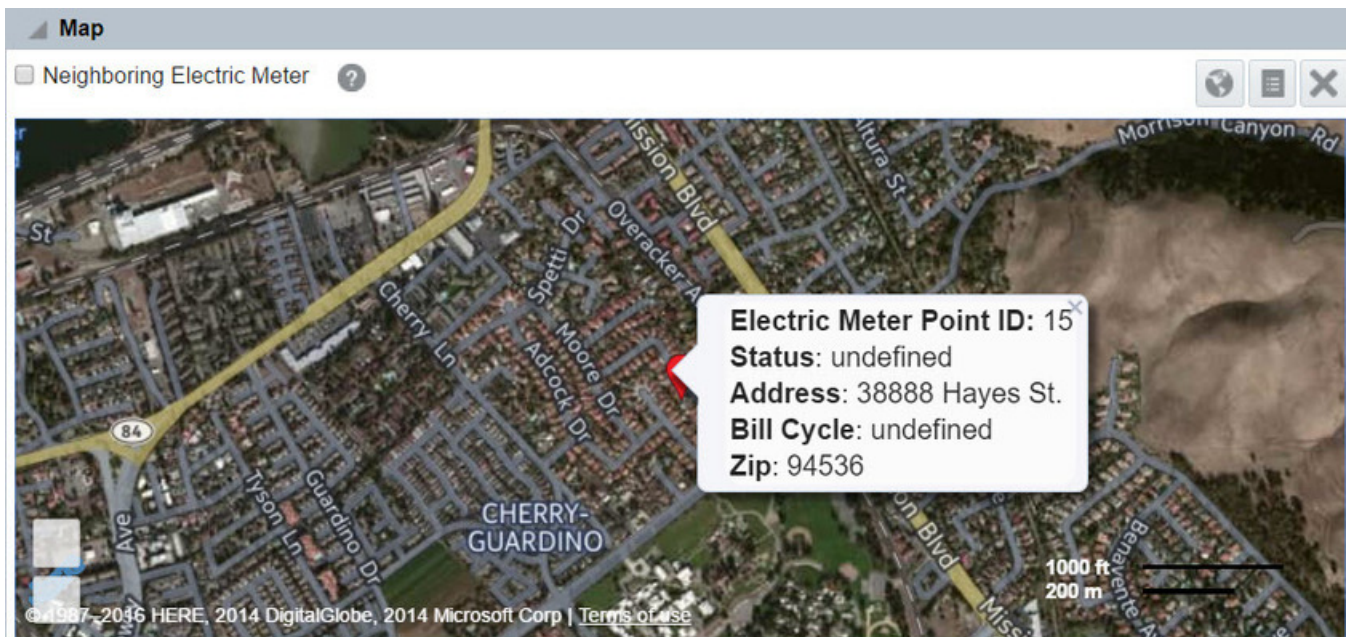
Only fact data can be displayed in the popup. For example, in contrast to the electric meter above, if a zip code did not have fact data, it could not display any data and the Point ID would be displayed along with No Data Available messages.
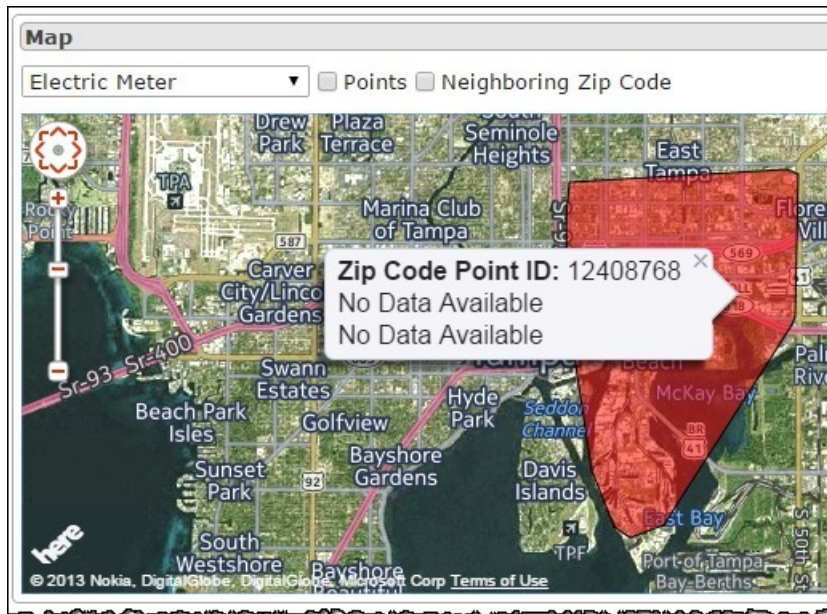
Creating MAPS_INFO_POPUP Configuration

Point type code information pop-ups are configured from the **Administer Configuration** page.

> **NOTE:** Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3.
   > **NOTE:** This step is only necessary if the **Config Name** list does not display the MAPS_INFO_POPUP configuration. If it already exists, skip to Accessing MAPS_INFO_POPUP XML.

   Click **Add**.

   The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select MAPS_RENDER_AS from the drop-down menu.

      The **Config Name** list only contains the configuration settings that have not yet been defined.

   b) **Config Description**: enter a description; for example: "MAPS_RENDER_AS configuration for the Billing Role."

   c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring MAPS_INFO_POPUP XML for more information about the configuration options.

d) **Status**: select **Active**.

5. Click **Save**.

Accessing MAPS_INFO_POPUP XML

1. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **MAPS_INFO_POPUP**.

3. Click **Get Config**.

   The configuration will be displayed as a row in a data table.

   Table 4: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Config** popup dialog that allows you to view the configuration description. **NOTE:** The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Role Type Code:** the role's role type code. • **Config Name:** the name of the selected configuration. • **Config Description:** the description for the configuration. • **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link. • **Status:** states whether the configuration is currently active or inactive. • **Create Time:** the date and time when the configuration was created. • **Update Time:** the date and time when the configuration was last updated. **Buttons:** • **Edit**: changes the dialog to the **Manage Config** view, which allows you to change the description and status. • **Cancel**: closes the **View Config** dialog.

Column Name	Description
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. Click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring MAPS_INFO_POPUP XML

Configuration Code Structure

The configuration code has the following general structure:

code block	description

<pre>PointTypeCode1
    GENERAL_SETTINGS:
        background_color:
        text_color:
        font:
    POINT_INFO:
        PTC|RELATION|RELATION_NAME:
        PTC|LABEL|LABEL_NAME:
 	
PointTypeCode2
 configuration settings...</pre>
	Each Point Type Code configuration includes five groupings of options:
	
	• General Settings
	
	  • `background_color`: popup background color. The color can be defined by a hex color code or a standard color name.
	
	  • `text_color`: popup text color. color can be defined by a hex color code or a standard color name.
	
	  • `font`: size and font face for the popup text.
	
	• Point Information
	
	  • Relations: point type relations, as applicable.
	
	  • Label: point type label, as applicable

code block	description

<pre>GM:
    GENERAL_SETTINGS:
        background_color: '#ffffff'
        text_color: '#000000'
        font: '14px arial'
    POINT_INFO:
        STATUS:
            FTC: 'RELATION'
            Label: "Status"
        ADDRESS1:
            FTC: 'ATTRIBUTE'
            Label: "Address"
        ZIP:
            FTC: 'RELATION'
            Label: 'Postal Code'
        BILL_CYCLE:
            FTC: 'RELATION'
            Label: "Bill Cycle"</pre>
	`GM:` gas meter popup dialog display instructions.

<pre>LINE_TX:
    GENERAL_SETTINGS:</pre>
	`LINE_TX:` line transformer popup dialog display instructions.

code block	description

```
        popup_background_color: 'light blue'
        popup_text_color: 'black'
        popup_font: '14px arial'
    POINT_INFO:
        CNT_DAILY_KWH_USAGE_AGG_TEST:
            Label: 'Meters per Transformer'
            FTC: 'NUM_ATTR'
        FEEDER:
            FTC: 'RELATION'
            Label: "Feeder"
        PHASE:
            FTC: 'ATTRIBUTE'
            Label: "Phase"
```

```
 EM:
        GENERAL_SETTINGS:
            popup_background_color: 'light blue'
            popup_text_color: 'black'
            popup_font: '14px arial'
        POINT_INFO:
            STATUS:
                FTC: 'RELATION'
                Label: "Status"
            ADDRESS1:
                FTC: 'ATTRIBUTE'
                Label: "Address"
            ZIP:
                FTC: 'RELATION'
                Label: 'Postal Code'
```

`EM`: electric meter popup dialog display instructions.

```
BILL_CYCLE:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            LINE_TX:
                FTC: 'RELATION'
                Label: "Transformer"
```

`BILL_CYCLE`: electric popup dialog display instructions.

```
ZIP:
    GENERAL_SETTINGS:
        background_color: '#ffffff'
        text_color: '#000000'
        font: '14px arial'
    POINT_INFO:
        ZIP|RELATION|LINE_TX: "Line Transformer"
        ZIP|RELATION|ZIP: "Zip Code"
```

`ZIP`: zip code popup dialog display instructions.

```
PRMS:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            STD_PLACE:
                FTC: 'RELATION'
                Label: "STD_PLACE"
```

`PRMS`: premise popup dialog display instructions.

Chapter 8

Configuring Map Rendering

Map rendering configuration determines how a point type code is displayed in the map panel. Point type codes with a discrete location are displayed as a pin-like pointer and point type codes that cover an area are displayed with a polygon. In this section outlines the options to configure display limits, area sizing, and default map options.

Configuration options include:

- Whether to render as point, area, or both.
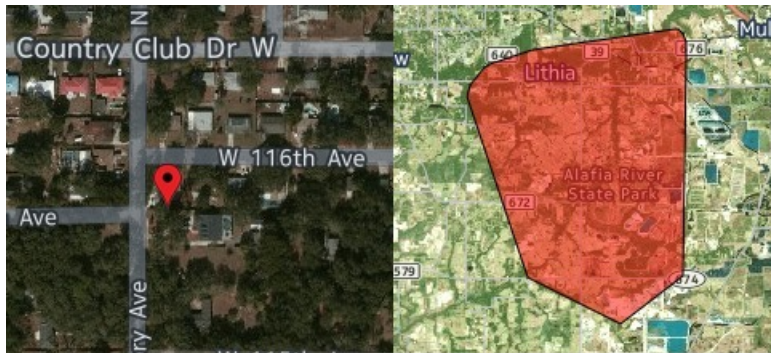
- Default zoom value that sets the zoom level when the map opens for a selected object. Larger zoom values result in a view that is zoomed in. For example, the following image shows electric meter default values (from top to bottom) of 20, 16, and 8:
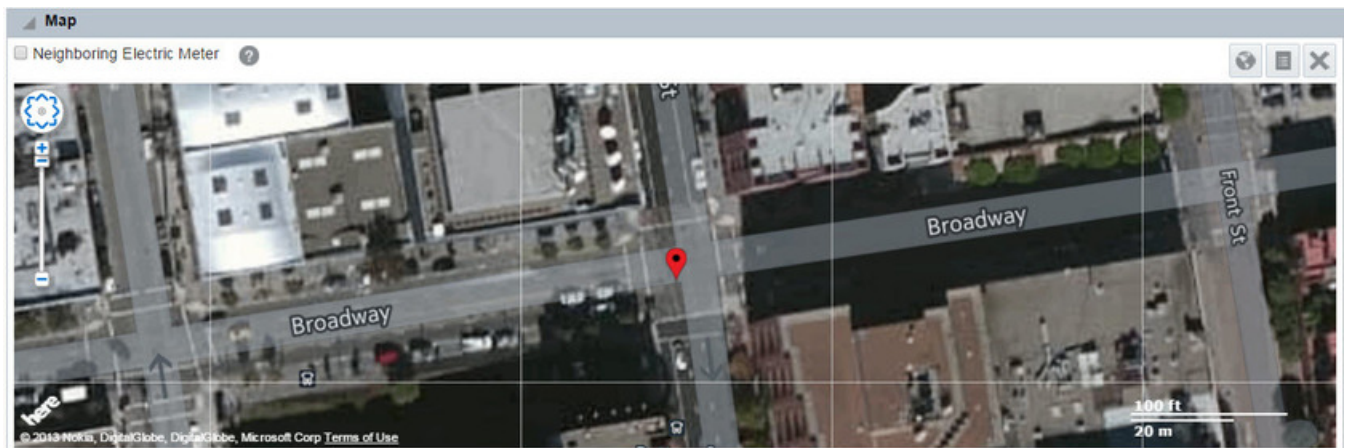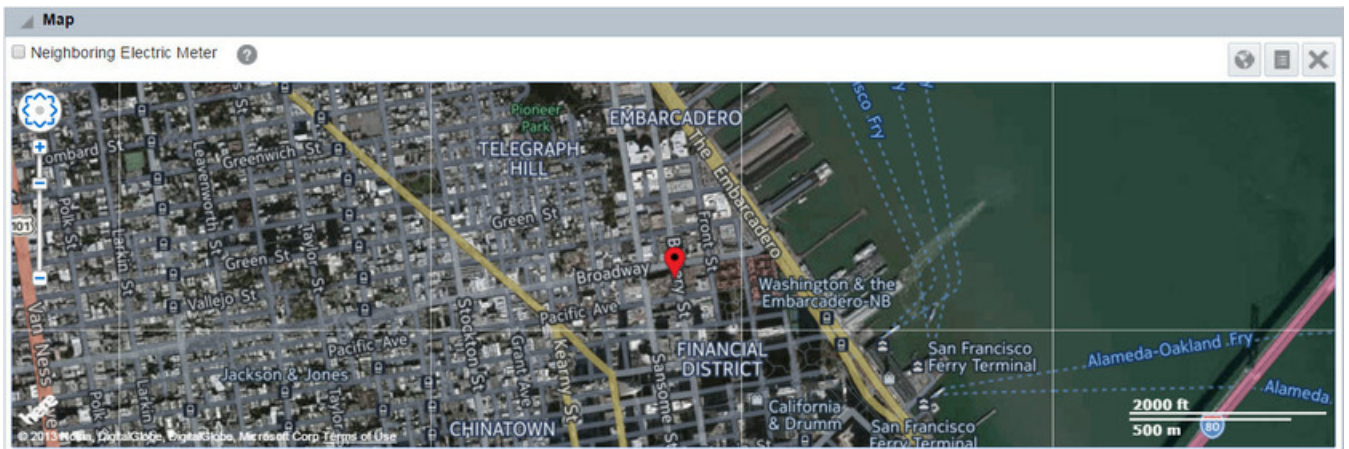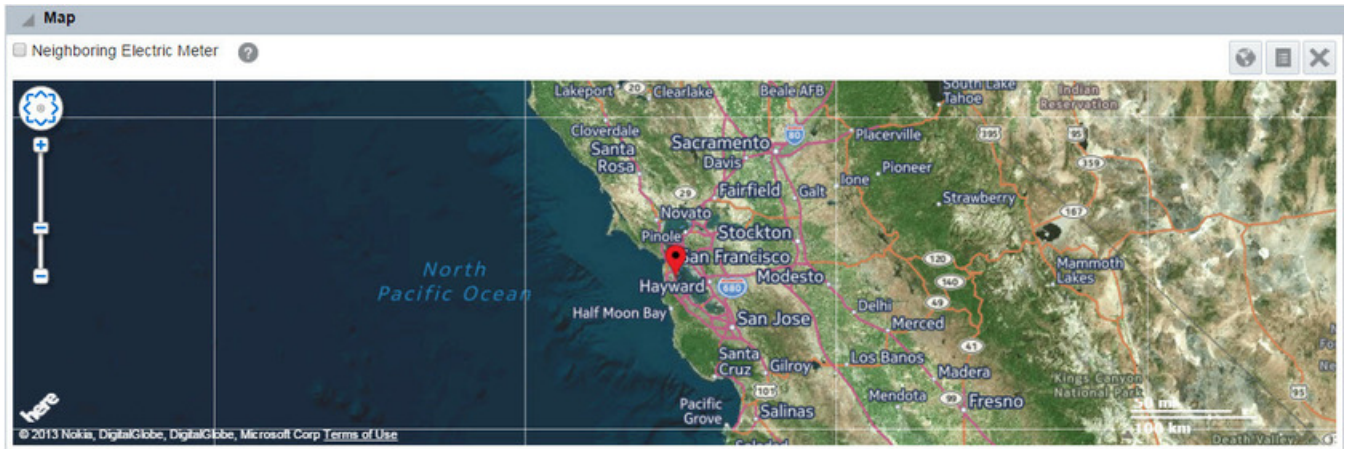
A zoom level of 16 is generally appropriate for discrete point types such as electric meters.

> **NOTE:** The map scale control is not configurable

- Related point type codes.
- Background and border coloring for a selected object and its peers. For example, a line transformer is configured to be displayed as a red polygon, its related meters displayed as red pins, and its neighboring transformer is a purple polygon.

NOTE: The colors for pins, transformers, and neighboring transformers cannot be configured.
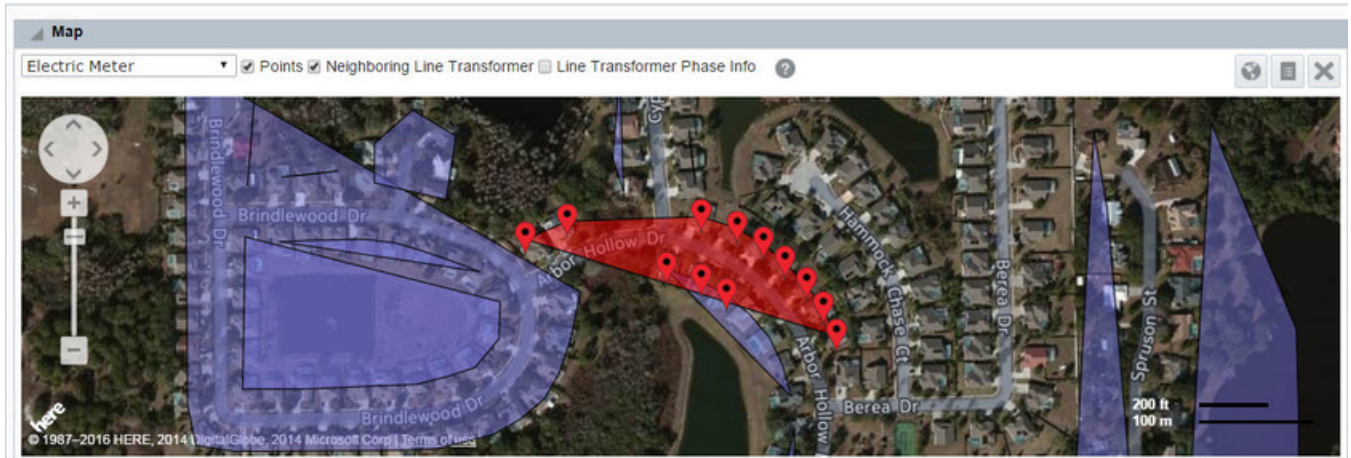
Creating MAPS_RENDER_AS Configuration

Map rendering options are configured from the **Administer Configuration** page.

NOTE: Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3.
   NOTE: This step is only necessary if the **Config Name** list does not display the MAPS_RENDER_AS configuration. If it already exists, skip to Accessing MAPS_RENDER_AS XML.

   Click **Add**.

   The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select MAPS_RENDER_AS from the drop-down menu.

      The **Config Name** list only contains the configuration settings that have not yet been defined.

   b) **Config Description**: enter a description; for example: "MAPS_RENDER_AS configuration for the Call Center Role."

   c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring MAPS_RENDER_AS XML for more information about the configuration options.

   d) **Status**: select **Active**.

5. Click **Save**.

Accessing MAPS_RENDER_AS XML

1. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **MAPS_RENDER_AS**.

3. Click **Submit** or click the **Get Config** button.

   The configuration will be displayed as a row in a data table.

   Table 5: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Configuration** popup dialog that allows you to view the configuration description.

View: opens the **View Configuration** popup dialog that allows you to view the configuration description.

> **NOTE:** The popup displays the same information as displayed in the data table row.

Fields:

- **Config ID:** the system-generated identification number for the configuration.
- **Environment Name:** the server environment name.
- **Role Type Code:** the role's role type code.
- **Config Name:** the name of the selected configuration.
- **Config Description:** the description for the configuration.
- **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
- **Status:** states whether the configuration is currently active or inactive.
- **Create Time:** the date and time when the configuration was created.
- **Update Time:** the date and time when the configuration was last updated.

Buttons:

- **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status.
- **Cancel**: closes the **View Configuration** dialog.

Column Name	Description
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. Click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring MAPS_RENDER_AS XML

Configuration Code Structure

The configuration code has the following general structure:

NOTE: The code structure has been elongated in the left column so that the descriptions can remain near the associated code.

code block	description
	Each Point Type Code configuration includes four groupings of options:
| ```
PointTypeCode1
GENERAL_SETTINGS:
        metrics:
        related_point_types:
        default_zoom:
        peer_point_limit:
        peer_polygon_limit:
        polygon_point_limit:
        radius:
        show_point:
        show_area:
``` | • General Settings<br><br>    • `metrics`: what consumption values are available. This option is for future use.<br><br>    • `related_point_types`: provides list of related point type codes, if applicable.<br><br>    • `default_zoom`: defines what the map zoom should be for the point type.<br><br>    • `peer_point_limit`: the maximum limit of peers points to display.<br><br>    • `peer_polygon_limit`: the maximum limit of peer polygons that can be rendered on the map at given time.<br><br>    • `polygon_point_limit`: the maximum limit of points within a polygon than can be rendered on the map at a given time.<br><br>    • `radius`: In miles, the radius for which the map looks for peers around the center point. Currently not in use.<br><br>    • `show_point`: whether a point should be displayed for the selected point type (true\|false); mutually exclusive with `show_area`.<br><br>    • `show_area`: whether an area should be displayed for the selected point type (true\| |

code block	description
	false); mutually exclusive with `show_point`.
| ```
CURRENT_POINT_RENDER_AS:
    style:
    background_color:
    border_color:
    text_color:
    font_size:
``` | • Current Point Rendering<br><br>  • `style`: style of bubble that will appear for the PTC. Currently not in use.<br><br>  • `background_color`: background color of the point. The color can be defined by a hex color code or a standard color name. Currently not in use.<br><br>  • `border_color`: point border color. The color can be defined by a hex color code or a standard color name. Currently not in use.<br><br>  • `text_color`: color of text in bubble. Currently not in use.<br><br>  • `font_size`: font face and size of text in bubble. Currently not in use. |
| ```
PEER_POINT_RENDER_AS:
    style:
    background_color:
    border_color:
    text_color:
    font_size:
``` | • Peer Point Rendering<br><br>  • `style`: style of bubble that will appear for peer points. Currently not in use.<br><br>  • `background_color`: background color of the peer point. The color can be defined by a hex color code or a standard color name. Currently not in use.<br><br>  • `border_color`: peer point border color. The color can be defined by a hex color code or a standard color name. Currently not in use.<br><br>  • `text_color`: color of text in bubble. Currently not in use.<br><br>  • `font_size`: font face and size of text in bubble. Currently not in use. |
| ```
RELATED_POINT_RENDER_AS:
    style:
    background_color:
    border_color:
    text_color:
    font_size:
``` | • Related Point Rendering<br><br>  • `style`: style of bubble that will appear for the related point. Currently not in use.<br><br>  • `background_color`: background color of the related point. The color can be defined by a hex color code or a standard color name. Currently not in use.<br><br>  • `border_color`: point border color. The color can be defined by a hex color code or a standard color name. Currently not in use. |

code block	description

```
PointTypeCode2
 configuration settings...
```

code block	description
| ```
EM:
    GENERAL_SETTINGS:
        metrics:
        related_point_types:
        default_zoom: '14'
        peer_point_limit: 5000
        peer_polygon_limit: 1000
        polygon_point_limit: 3000
        radius: '50'
        show_point: 'true'
        show_area: 'false'
    CURRENT_POINT_RENDER_AS:
        style: 'bar_chart'
        background_color: '#ffffff'
        border_color: '#000000'
        text_color: 'red'
        font_size: '10'
    PEER_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#fffff1'
        border_color: '#000000'
        text_color: 'black'
        font_size: '10'
    RELATED_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#FF0000'
        border_color: '#000000'
        text_color: 'white'
        font_size: '10'
``` | `EM`: electric meter point rendering instructions.<br><br>• `metrics`: metrics are not in use.<br><br>• `related_point_types`: Electric Meters are related types.<br><br>• `default_zoom`: Default zoom is 14.<br><br>• `peer_point_limit`: Peer point limit is 5000 points.<br><br>• `peer_polygon_limit`: polygon limit is 1000 points.<br><br>• `polygon_point_limit`: polygon point limit is 3000 points.<br><br>• `radius`: Radius for neighboring points is 50 miles.<br><br>• `show_point`: It is a point.<br><br>• `show_area`: It is not a polygon |
| ```
LINE_TX:
    GENERAL_SETTINGS:
        metrics:
        related_point_types:
            EM|LINE_TX|POINT:
                Electric Meter
        default_zoom: '14'
        peer_point_limit: 5000
        peer_polygon_limit: 1000
        polygon_point_limit: 3000
        radius: '50'
        show_point: 'false'
        show_area: 'show'
    CURRENT_POINT_RENDER_AS:
        style: 'bar_chart'
        background_color: '#FF0000'
        border_color: '#000000'
        text_color: 'red'
        font_size: '10'
    PEER_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#7171d6'
        border_color: '#000000'
        text_color: 'black'
        font_size: '10'
    RELATED_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#7171d6'
        border_color: '#000000'
        text_color: 'white'
        font_size: '10'
``` | `LINE_TX`: line transformer polygon and related point map rendering instructions.<br><br>• `metrics`: metrics are not in use.<br><br>• `related_point_types`: No related types.<br><br>• `default_zoom`: Default zoom is 14.<br><br>• `peer_point_limit`: Peer point limit is 5000 points.<br><br>• `peer_polygon_limit`: polygon limit is 1000 points.<br><br>• `polygon_point_limit`: polygon point limit is 3000 points.<br><br>• `radius`: Radius for neighboring points is 50 miles.<br><br>• `show_point`: It is not a point.<br><br>• `show_area`: It is a polygon |

code block	description

Chapter 9

Configuring Detailed Point Information

Detailed point information configuration controls which point metadata options will be displayed when viewing point details. These are global settings and will apply everywhere points are viewed.

Point information is defined in the *POINT_INFO* configuration, which uses an HTML table format to allow customization for data displayed and layout. The HTML is used in two primary interface sections: point details and the point detail dialog box **Summary** tab.

Creating POINT_INFO Configuration

The point information is configured from the **Administer Configuration** page.

> **NOTE:** Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3. > **NOTE:** This step is only necessary if the **Config Name** list does not display the POINT_INFO configuration. If it already exists, skip to Accessing POINT_INFO XML.

   Click **Add**.

   The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select POINT_INFO from the drop-down menu.

      The **Config Name** list only contains the configuration settings that have not yet been defined.

   b) **Config Description**: enter a description; for example, "POINT_INFO configuration for the Billing Role."

   c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring POINT_INFO XML for more information about the configuration options.

   d) **Status**: select **Active**.

5. Click **Save**.

Accessing POINT_INFO XML

Point Information is configured from the **Administer Configuration** page. Only administrative users can change configuration settings.

Each Role has its own configuration.

1. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

   > **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **POINT_INFO**

3. Click **Get Config**.

   The configuration will be displayed as a row in a data table.

   Table 6: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Configuration** popup dialog that allows you to view the configuration description. NOTE: The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Role Type Code:** the role's role type code. • **Config Name:** the name of the selected configuration. • **Config Description:** the description for the configuration. • **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link. • **Status:** states whether the configuration is currently active or inactive. • **Create Time:** the date and time when the configuration was created. • **Update Time:** the date and time when the configuration was last updated. **Buttons:** • **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status. • **Cancel**: closes the **View Configuration** dialog. **Edit**: opens the **Manage Configuration** dialog, which allows you to change the description and status. **XML**: opens the **Config XML** dialog.

4. In the data table row, click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring POINT_INFO XML

The point information configuration specifies the table structure and data requirements for each point type code.

Configuration Code Structure

The configuration code has the following general structure:

```
PointTypeCode1
 options:
    FACTS
 options_popup:
    SUMMARY
      FACTS

PointTypeCode2
 options:
    FACTS
 options_popup:
    SUMMARY
      FACTS
```


The options sections (under each point type code) control what is in the point details table on the pages [1]. Likewise, the options_popup sections control what is in the point details dialog box **Summary** tab [2].

Point Details on Pages

Variations in these elements can allow different placements of point data information elements. The "Label" items are the bold label that appears to the left of the information, and the "Value ID" is the fact lookup.

code block	description
`EM:`	The configuration begins with the name of the point type code (*e.g.*, `EM`).
` options:`	The `options:` section contains a table that defines the structure of the Point Details information on a page (View Point Facts, Explore Point Data, and Point Data Export).

`POINT_ID:`
`  Label: 'Point ID'`
`  FTC: 'POINT'`
	The table's `POINT_ID:` attribute is a target for scripts and stylesheets that produce the tables in the pages and dialog boxes.

`STATUS:`
`   Label: 'Status'`
`   FTC: 'RELATION'`
`LINE_TX:`
`   Label: 'Transformer'`
`   FTC: 'RELATION'`
`BILL_CYCLE:`
`   Label: 'Bill Cycle'`
	`STATUS:`, `LINE_TX:`, and `BILL_CYCLE:` brings in these details to the point's information.

code block	description
```FTC: 'RELATION'```	

Point Information on Popup

code block	description
```options_popup:```	The `options_popup:` section contains a table that defines the structure of the Point Detail dialog box. It is configured the same way as Point Details. The
```POINT_ID: Label: 'Point ID' FTC: 'POINT' STATUS: Label: 'Status' FTC: 'RELATION' LINE_TX: Label: 'Transformer' FTC: 'RELATION' BILL_CYCLE: Label: 'Bill Cycle' FTC: 'RELATION' DISTRICT: Label: 'District' FTC: 'RELATION' SSN_DEVICE_STATUS: Label: 'Device Status' FTC: 'RELATION'```	The remainder of the `options_popup:` section defines the associated information that will be displayed; including: • `POINT_ID:` • `STATUS:` • `LINE_TX:` • `BILL_CYCLE:` • `DISTRICT:` • `SSN_DEVICE_STATUS:`
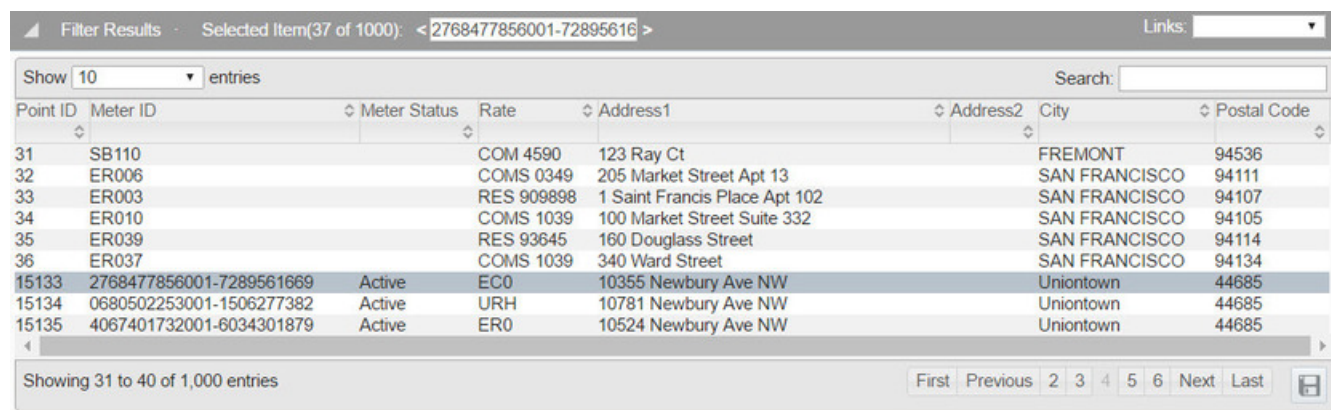
Chapter 10

Configuring Point Search Columns

By updating the `POINT_SEARCH_COLUMNS`and applying it to a specific role(s), the Filter Results pane in the Explorer page can be configured to display specific fact data columns. As well, the order that the columns appear with the grid is specified through the structure of the code.

The following section describes the options available.

Creating POINT_SEARCH_COLUMN Configuration

The Filter Results data table column information is configured from the **Administer Configuration** page.

> **NOTE:** Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

   The system will display the Administer Configuration page and display the results from the first Config Name menu option.

> **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3.

> **NOTE:** This step is only necessary if the **Config Name** list does not display the POINT_SEARCH_COLUMN configuration. If it already exists, skip to Accessing POINT_INFO XML.

Click **Add**.

The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select POINT_SEARCH_COLUMN from the drop-down menu.

     The **Config Name** list only contains the configuration settings that have not yet been defined.

   b) **Config Description**: enter a description; for example, "POINT_SEARCH_COLUMN configuration for the Billing Role."

   c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring POINT_INFO XML for more information about the configuration options.

   d) **Status**: select **Active**.

5. Click **Save**.

Accessing POINT_SEARCH_COLUMN XML

Point Information is configured from the **Administer Configuration** page. Only administrative users can change configuration settings.

Each Role has its own configuration.

1. Navigate through **Administer** > **Metadata** > **Configuration.**

The system will display the Administer Configuration page and display the results from the first Config Name menu option.

> **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **POINT_SEARCH_COLUMN**

3. Click **Get Config**.

The configuration will be displayed as a row in a data table.

Table 7: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Analytics" role has a Role Type Code of ANALYTICS. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.

Column Name	Description
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links:

View: opens the **View Configuration** popup dialog that allows you to view the configuration description.

> **NOTE:** The popup displays the same information as displayed in the data table row.

Fields:

- **Config ID:** the system-generated identification number for the configuration.
- **Environment Name:** the server environment name.
- **Role Type Code:** the role's role type code.
- **Config Name:** the name of the selected configuration.
- **Config Description:** the description for the configuration.
- **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
- **Status:** states whether the configuration is currently active or inactive.
- **Create Time:** the date and time when the configuration was created.
- **Update Time:** the date and time when the configuration was last updated.

Buttons:

- **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status.
- **Cancel**: closes the **View Configuration** dialog.

Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.

XML: opens the **Config XML** dialog.

4. In the data table row, click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring POINT_SEARCH_COLUMN XML

The Explore page Filter Results column configuration specifies the table structure and data requirements for each grid column. The point search results column can be customized to show fact data as columns in the grid.

Column Details within the Grid

Variations in these elements can allow different placements of point data information elements in the grid. The columns are organized, from left to right in the grid, in the order that they are declared. The "Label" items are the bold label that appears to the left of the information, and the "Value ID" is the fact lookup. The `POINT_SEARCH_COLUM` configuration format is as follows:

code block	description
`EM:`	The configuration begins with the name of the point type code (*e.g.*, `EM`).

`- STANDARD:`
`    pointID: 'Point ID'`
`    pointName: 'Asset ID'`
	The `STANDARD:` section controls base point items such as `pointID`, `pointName`, `pointLookup`, `pointTag`, etc.
	
	This section allows the grid to display these items and label them as needed. In this example, we name `pointName` as Asset ID because customers are more familiar with that name.

`- STATUS:`
`    Label: 'Asset Status'`
`    FTC: 'RELATION'`
`- RATE:`
`    Label: 'Rate Class'`
`    FTC: 'RELATION'`
`- ADDRESS1:`
`    Label: 'Address'`
`    FTC: 'ATTRIBUTE'`
`- GEO_CITY:`
`    Label: 'City'`
`    FTC: 'ATTRIBUTE'`
`- GEO_ZIP:`
`    Label: 'Postal Code'`
`    FTC: 'RELATION'`
	After `STANDARD:`, the configuration lists fact lookups with nested label and FTC sections.
	
	In this sample, `STATUS` is a fact lookup, `Label` defines the logical column name, and `FTC` is relation because `STATUS` is a relation type fact.
	
	The grid supports both `ATTRIBUTE`s and `RELATION`s.
	
	NOTE: `STANDARD:` should always be first, but the order that the facts are declared defines to the order of the columns of the UI grid.

`LINE_TX:`
`    - STANDARD:`
`        pointID: 'Point ID'`
`        pointName: 'Asset ID'`
 	
`    - RATING:`
`        Label: 'Rating'`
`        FTC: NUM_ATTR`
`    - PHASE:`
`        Label: 'Phase'`
`        FTC: 'ATTRIBUTE'`
`    - INSTALLATION_DT:`
`        Label: 'Installation Date'`
`        FTC: 'ATTRIBUTE'`
	The same format is then applied to all other required PTCs.
	
	NOTE: This configuration is optional. If it does not exist, or is not defined properly, the grid will default to base options of `pointID`, `pointLookup`, etc.

code block	description

```
- FEEDER:
    Label: 'Feeder'
    FTC: 'RELATION'
```

Chapter 11

Configuring Chart Panels (Rakes)

Administrative users can configure which chart panels (rakes) and options are displayed on the Explorer page for each role, as selected in the Drawer Menu. **Explorer** configuration is defined in the *RAKE* configuration XML.

For a selected role, a point type code may have its own configuration definition, may share a configuration with another point type code, or, if not specifically defined, inherit the default configuration. For example, a Premise could have separate panel types and drop-down options than an Electric Meter while a Rate Class and a Supplier Rate Class might share a configuration and all may be different depending on the role that is selected.

Rake Components

Legend

1. Drop-down lists and corresponding data are determined by point type. The drop-down lists may be configurable or may automatically pull data based on the rake type. See individual rake descriptions for details.

2. The available rakes are defined by Role and Type.

Roles and Rakes

Since each role is configured separately, it is possible that the rakes available for a point type code (for example, an electric meter) would be different in number and kind between roles. This flexibility allows the system to be tailored to the needs of different users.

Available Panels

The panels that are provided for a selected role and point type code may be chosen from the available rake types.

Name	Description
Event	The Event panel supports between one and five charts. The first main chart is controlled by the drop-down selections. The remainder of the charts are optional and are controlled directly from the configured facts. In addition to configuring facts, this panel's drop-down label and drop-down content is also configurable.
Heat Map	The Heat Map panel displays transformer overload conditions over time.
Map	The Map panel displays a geospatial representation of the data points. Point type codes with discrete locations (*e.g.*, a meter) are indicated by a pin at the location; area point type codes (*e.g.*, zip code, feeder, line transformer) are represented by a polygon. Configuration options: • Map appearance and behavior are configured with MAPS_RENDER_AS and MAPS_ INFO_POPUP configuration.
Metric	The Metric panel supports between one and five charts. The first main chart is controlled by the drop-down selections. The remainder of the charts are optional and are controlled directly from the configured facts. In addition to configuring facts, this panel's drop-down label and drop-down content is also configurable.
Transformer Load Management	The Transformer Load Management panel displays the load on a transformer over time. The panel displays the transformer load in a top chart and meter consumption (kWh) or voltage in the bottom chart.

Creating RAKE Configuration

The Explore page configuration is defined in the RAKE configuration setting.

The page is configured from the **Administer Configuration** page.

NOTE: Each Role must be configured separately.

1. Select the role to configure from the **Role** option in the Drawer Menu.

2. Navigate through **Administer** > **Metadata** > **Configuration.**

The system will display the Administer Configuration page and display the results from the first Config Name menu option.

NOTE: The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

3. **NOTE:** This step is only necessary if the **Config Name** list does not display the RAKE configuration. If it already exists, skip to Accessing RAKE XML.

Click **Add**.

The **Create Configuration** dialog will open.

4. Complete the following fields:

   a) **Config Name**: select RAKE from the drop-down menu.

   The **Config Name** list only contains the configuration settings that have not yet been defined.

   b) **Config Description**: enter a description; for example: "RAKE configuration for the Billing Role."

   c) **Config XML**: enter configuration XML in the field. If this code isn't complete, enter initial XML in the field as a placeholder while you develop the final version. See Configuring Rakes to Open by Default and Configuring Standard and Combo Rakesfor more information about the configuration options.

   d) **Status**: select **Active**

5. Click **Save**.

Accessing RAKE XML

1. Navigate through **Administer** > **Metadata** > **Configuration.**

The system will display the Administer Configuration page and display the results from the first Config Name menu option.

> **NOTE:** The **Config Name** list contains configuration definitions that are available for the selected role; therefore, if the role that was selected doesn't have any definitions available, the system will return a message stating that no data was found.

2. From the **Config Name** drop-down list, select: **RAKE**

3. Click **Get Config**.

The configuration will be displayed as a row in a data table.

Table 8: Administer Configuration Data Table

Column Name	Description
ID	Contains the system-generated identification number for the configuration.
Environment	The server environment name.
Role Type Code	The selected role's role type code. For example, the "Safety" role has a Role Type Code of SAFETY. The role and role type codes may vary by implementation. To see the available roles and role type codes, select **Roles** under Security in the **Administer** menu.
Config Name	The name of the selected configuration.
Description	The description from the configuration definition.
Active	Shows whether the selected configuration is active or inactive
Create Time	The date and time when the configuration setting was created.
Update Time	The date and time when the configuration setting was last updated.
	Contains the following links: **View**: opens the **View Configuration** popup dialog that allows you to view the configuration description. **NOTE:** The popup displays the same information as displayed in the data table row. **Fields:** • **Config ID:** the system-generated identification number for the configuration. • **Environment Name:** the server environment name. • **Config Name:** the name of the selected configuration.

Column Name	Description
	• **Config Description:** the description for the configuration.
	• **Config XML:** a link to the XML for the configuration; the XML may be viewed or edited by following the link.
	• **Status:** states whether the configuration is currently active or inactive.
	• **Create Time:** the date and time when the configuration was created.
	• **Update Time:** the date and time when the configuration was last updated.
	Buttons:
	• **Edit**: changes the dialog to the **Manage Configuration** view, which allows you to change the description and status.
	• **Cancel**: closes the **View Configuration** dialog.
	Edit: opens the **Manage Configuration** dialog, which allows you to change the description and status.
	XML: opens the **Config XML** dialog.

4. Click the **XML** link.

   The **Config XML** popup window will open with the configuration XML.

5. Click **Edit** to enable edit mode.

Configuring RAKE XML

The RAKE configuration XML defines the panels (*i.e.*, rakes) that will appear for a point type code and the associated data and options for each rake.

Configuration Code Structure

The configuration code has the following general structure:

```
default:
 configuration settings...

PointTypeCode1
 configuration settings...

PointTypeCode2
 configuration settings...
```

The default configuration is for any point type code that has not been configured. Every point type code that is configured may have unique settings.

For example, if electric meters have a point type code of EM and gas meters have a point type code of GM, then the configuration would have this structure:

```
default:
 configuration settings...

EM:
 configuration settings...

GM:
 configuration settings...
```

If, for example, *FEEDER* was not listed separately, it would inherit the default configuration.

Default Configuration for Unspecified Point Type Codes

The `default` section defines the panels that will be displayed for point type codes that do not have defined configuration settings. For example, if there is no specific configuration called out for the Gas Meter type, it will inherit the default configuration.

Table 9: Default Block

code block	description
```default: dropdown_view: label: 'View' options: - metricSuper: 'Metric' - eventSuper: 'Event' - map: 'Map'```	The default configuration is required. Add it above any point type code definitions. • The `dropdown_view` `options` lists the panels that will be displayed. The buttons to open the panels will be placed (from left to right) in the order listed.

Configuring Rakes to Open by Default

It is also possible to define the panels to open when a point is selected. This can be defined on a per role basis to allow different user types (such as, non-power users vs. power users) to have different views. The default_open settings follows the drop-down_view heading.

Table 10: Default Block with Default Open

code block	description
```default_open: - metricSuper - eventSuper - map```	• Under the `dropdown_view` heading in the default section, add a `default_open` section and list the panel names that you want to automatically be seen when opening the page or selecting a point. In this case, the `metric` panel will open automatically. • There is no limit to how many panels can be opened. • Also note that the order in which they are listed is the order in which they will be added.

Default Section including the Default Open Subsection

code block	description
```dropdown_view: label: 'View' options: - metricSuper: 'Metric' - eventSuper: 'Event' - map: 'Map' default_open: - metricSuper - eventSuper - map```	

Configuring Standard and Combo Rakes

Standard Rake Configuration

After the default section, you need to define the configuration for every point type code that requires specific rakes. Additionally, you need to define the settings for the panels, as applicable.

Table 11: Configuration Settings and Description for an Electric Meter (Example)

code block	description
`EM:`	The configuration begins with the name of the point type code (such as `EM`).

`dropdown_view:`
`    label: 'View'`
`    options:`
`       - metricSuper: 'Metric'`
`       - eventSuper: 'Event'`
`       - map: 'Map'`
	The `dropdow_view:` and its corresponding options are no longer being used.

`default_open:`
`       - metricSuper`
`       - eventSuper`
`       - map`
	Defines the rakes that will open by default. See Configuring Rakes to Open by Default for more information.

Heat Map

The Heat Map panel displays a transformer's load over time. The y-axis displays hours in a day and the x-axis displays days. Each hour is colored according to the transformer load. The chart dynamically scales the load and compares the hourly value to the average load and color codes the values based on where a value is in the distribution of all values. Colors range from green (low values) to red (high values) with color blending for values in between.

code block	description
`Heat:`	`Heat:` begins the configuration section.

`Labels:`
`    Visible: True`
`    timeBasis: 'Time Basis'`
`    factCategory: 'Dispay Options'`
	The `Labels:` section allows you to define how the drop-down labels appear.
	
	The left parts are keys and **should not** be changed or removed.
	
	The text in quotes **may** be changed to whatever is desired to label the drop-down.

`INT_3600:`
`  Name: 'Hourly'`
`    Chart1:`
`      Fact_Categories:`
`        kWh Avg:`
`          Name: 'Average Hourly Load'`
`          Facts:`
`            AVG_INT_3600_KWH_AGG: 'Average Usage'`
	Chart1 and Fact_Categories are standard anchors and should not be altered or removed.
	
	kWh Avg is an example of a fact category lookup. The name is the drop-down name. Facts declare fact lookups along with their friendly name.

```
# Heat Map
  Heat:
    Labels:
      Visible: True
      timeBasis: 'Time Basis'
      factCategory: 'Display Options'

    INT_3600:
      Name: 'Hourly'
      Chart1:
        Fact_Categories:
          kWh Avg:
            Name: 'Average Hourly Load'
            Facts:
              AVG_INT_3600_KWH_AGG: 'Average Usage'
```
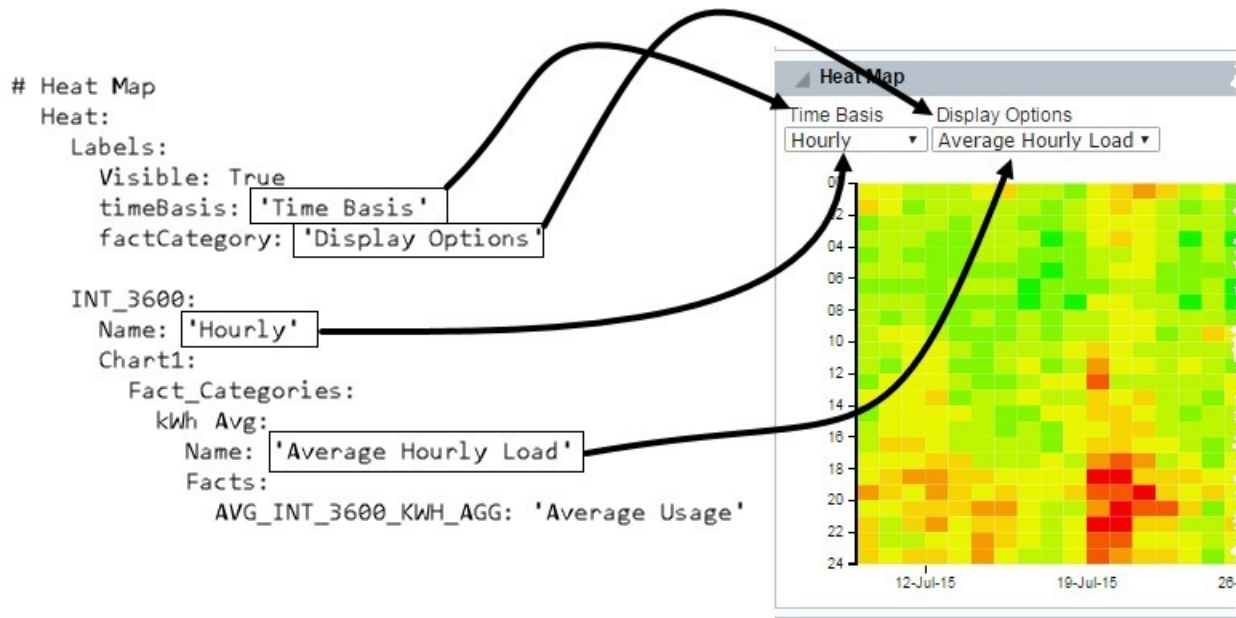
Overload Map

The Overload Map panel displays a transformer's overload status over time. The y-axis displays hours in a day and the x-axis displays days.

The Overload Map panel uses three colors to show whether or not a line transformer is overloaded. The transformer rating is the highest value that is non-overloaded; two variables are configured for overloaded conditions: warning and critically overloaded.

- Less than the warning (green): the load is at or below the transformer rating.

- Warning Threshold (orange): the load is between the warning and critical.

- Critical Threshold (red): the load is at or above the critical threshold.

code block	description
`Overload:`	`Overload:` begins the configuration section.

`Labels:`
`  Visible: True`
`  timeBasis: 'Time Basis'`
`  factCategory: 'Dispay Options'`
	The `Labels:` section allows you to define how the drop-down labels appear.
	
	The left parts are keys and **should not** be changed or removed.
	
	The text in quotes **may** be changed to whatever is desired to label the drop-down.

`INT_3600:`
` Name: 'Hourly'`
` Chart1:`
`   Fact_Categories:`
`     Overload:`
`       Name: '% Overloaded'`
`       Warning_Threshold: 100`
`       Critical_Threshold: 160`
`       Facts:`
`         INT_3600_OVERLOAD_RATE: '100% Rating'`
	Chart1 and Fact_Categories are standard anchors and should not be altered or removed.
	
	The fact is the value being compared with the rating, so INT_3600_ OVERLOAD_RATE is the fact lookup and "100% Rating" is the pretty name.

```
# Overload Heat Map
  Overload:
    Labels:
      Visible: True
      timeBasis: 'Time Basis'
      factCategory: 'Display Options'

    INT_3600:
      Name: 'Hourly'
      Chart1:
        Fact_Categories:
          Overload:
            Name: '% Overloaded'
            Warning_Threshold: 100
            Critical_Threshold: 160
            Facts:
              INT_3600_OVERLOAD_RATE: '100% Rating'
```
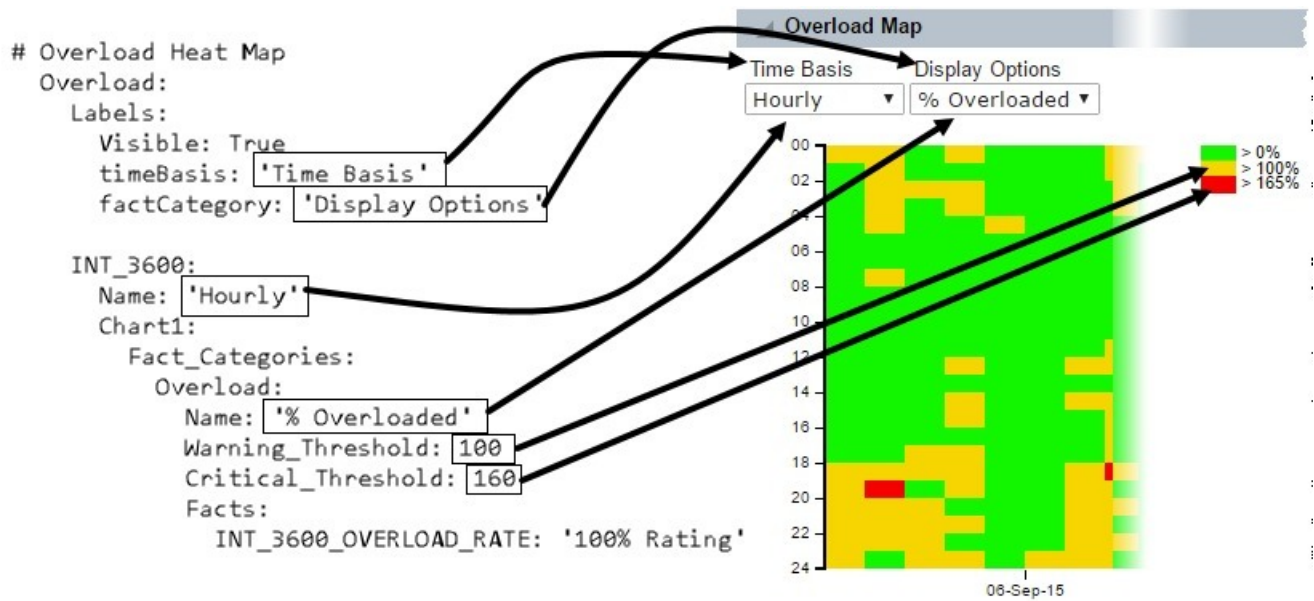
Combo Rake Configuration

In addition to the standard panels, it is possible to configure combination panels that combine the multiple charts into a single view. This is useful in combination with the `default_open` setting to allow users to quickly see relevant information.

Event Panel

The Event panel displays a combination of event flags and relations for the selected object. Events are categorized as:

• Meter Events received from data collection.

• Account Events, such as move-in/move-out, customer call to call center, etc., that are provided by a customer information system (CIS),

• Derived Events that are identified by DataRaker core processes.

• Lists that are the results of an analytic calculation or test.

The panel displays all available flags (top chart) and total flags observed (bottom chart) over time (weekends are shaded in grey).

NOTE: Flags are indicated by diamonds.

Table 12: Event Combo Panel

code block	description
`Event:`	

`Labels:`
`  Visible: True`
`  timeBasis: 'Time Basis'`
`  actCategory: 'Fact Category'`
`  viewMode: 'View'`
`  fact_1: 'Fact Name'`
	The `Labels:` section allows you to define how the drop-down labels appear.
	
	The left parts are keys and **should not** be changed or removed.
	
	The texts in quotes **can** be changed to whatever is desired to label the drop-down. The visible flag

code block	description
	can be either true or false and defines whether any drop-down labels should be visible at all.

code block	description

<pre>DAILY:
  Selected: True
  Daily
  Chart1:
    View:
      Single:
        Enabled: True
      All:
        Selected: True
        Enabled: True
    Fact_Categories:
      kWh Register Validation:
        Name: 'kWh Register Validation Set'
        FTC: 'EVENT' # Fact Type Code, Required
 	
  CUSTOM_SETS:
    My_Set:
      Name: 'My Events'
      EVENT:
        Lookup1: 'Event1 Name'
        Lookup2: 'Event2 Name'
 	
  Chart2:
    EVENT:
     DAILY_KWH_REGISTER_STATIC: 'Register Static'
    RELATION:
     ZIP: 'Zip'
    SEGMENT:
 	
Chart3:
   EVENT:
   RELATION:
     LINE_TX: 'Line TX'
   SEGMENT:</pre>
	`DAILY:` The sets of options are tiered by time basis (Second. Hourly, Daily, Etc)
	
	• `Selected` determines whether `Name:` defines what appears in the drop-down menu.
	
	• `Name:` the name that will be displayed as an option.
	
	There are a possibly total of five charts. Chart 1 is mandatory, but charts 2-5 are optional. For Chart 1, there are two types of fact sets that can be defined: `Fact_Categories` and `CUSTOM_SETS`.
	
	• `Fact_Categories:` use the fact category lookup as the first key, then nested under it define a friendly name and the Fact Type Code for FTC.
	
	• `CUSTOM_SETS:` declare each fact individually by lookup and friendly name. Each fact should be nested under its fact type; in the example here we place them under EVENT, but if they were relation type we would nest them under RELATION. Charts 2-5 are declared by fact type code, fact lookup, and friendly name.

Metric Panel

The Metric combo panel is a "super panel" that displays consumption and register data for the selected point. The consumption chart (top) displays daily data; the register data (middle) displays the register value reported or calculated for the day.

code block	description
<pre>Metric:</pre>	`Metric:` begins the configuration section.

<pre>Labels:
  Visible: True
  timeBasis: 'Time Basis'
  factCategory: 'Unit of Measure'
  viewMode: 'Chart Type'
  fact_1: 'Data Type 1'
  fact_2: 'Data Type 2'
  benchmark: 'Benchmark'
  factTypeW: 'Weather'
  agg: 'Statistics'</pre>
	The `Labels:` section allows you to define how the drop-down labels appear.
	
	The left parts are keys and **should not** be changed or removed.
	
	The text in quotes **can** be changed to whatever is desired to label the drop-down. The visible flag can be either true or false and defines whether any drop-down labels should be visible at all.

<pre>DAILY:
  Selected: True
  Name: 'Daily'</pre>
	The sets of options are tiered by time basis (Second. Hourly, Daily, Etc).
	
	`Selected:` determines whether `Name:` defines what appears in the drop-down menu.

code block	description
	`Name:` the name that will be displayed as an option.

```
Chart1:
  Height: 250
  View:
    Enabled: True
  Double:
    Enabled: True
  All:
    Enabled: True
  Best:
    Selected: True
    Enabled: True
  Stacked:
    Enabled: True
  Fact_Categories:
    kWh:
      Selected: True
      Name: 'kWh'
      Facts:
        DAILY_KWH_USAGE_DERIVED: 'Derived'
        DAILY_KWH_USAGE_AGG: 'Aggregated'
        DAILY_KWH_USAGE_EST: 'Estimated'
        DAILY_KWH_USAGE_INTER: 'Interpolated'
    Vrms:
      Name: 'Volt'
      Facts:
        DAILY_VRMS: 'Vrms'
        DAILY_VRMS_AGG: 'Aggregated Vrms'

  Benchmark:
    LINE_TX:
      Name: 'Transformer'
      Facts:
        P90_DAILY_KWH_USAGE_DERIVED:
          Name: 'P95 Daily kWh Usage Derived'
          Color: 'Red'
        P10_DAILY_KWH_USAGE_DERIVED:
          Name: 'P5 Daily kWh Usage Derived'
          Color: 'Green'
    LP_CLASS:
      Name: 'LP Class'
      Facts:
        P90_DAILY_KWH_USAGE_AGG:
          Name: 'P90 Daily kWh Usage Aggregated'
          Color: 'Red'
        P10_DAILY_KWH_USAGE_AGG:
          Name: 'P10 Daily kWh Usage Aggregated'
          Color: 'Green'
```

- `Chart1:` has many options to configure.

- `Height:` controls the vertical height of the chart.

- `View:` controls the mode of the chart.

- `Single:` allows the section of one fact.

  `Double:` allows two different facts.

- `All:` shows every fact for a selected fact category in a side-by-side bar chart display.

- `Best` defines the "Best" option for the selected fact category.

- `Stacked:` is similar to `All` in that is shows all the facts for a given fact category, except the bars are displayed stacked on top of each other rather than side by side.

  NOTE:
  Each of these options can be disabled by setting Enabled to False. The 'selected' one will be the default.

- `Fact_Categories` contains a nest of fact category look-ups. Afterward, there is a set of options; such as whether it should be default selected. There is also the fact category's accessible name and a list of fact look-ups that are children of the fact category.

- `Benchmark`, or level, shows relationship data to a parent point, such as `line_tx` from a meter level. The friendly name is configured along with the fact lookup of the parent relation, friendly name, as well as what color the benchmark line should use.

```
  Chart2:
  Height: 100
  Y1:
    SECOND_KWH_REGISTER_LOAD:
      Name: 'Reg Load'
      Color: 'Red'
      Style: 'Bar'
      FTC: 'METRIC'
  Y2:
    DAILY_CNT_SECOND_POWER_OUTAGE_FLAG:
      Name: 'Count'
      Color: 'Blue'
      Style: 'Dot'
      FTC: 'METRIC'
```

Chart2 definition which provides two y-axis values. The section begins by setting the `Height`.

The first y-axis is defined in `Y1`. Any fact declared in Y1 will bind to the left Y axis.

- The key (**SECOND_KWH_REGISTER_LOAD**) is the fact lookup.

- **Name** is the friendly name.

- **Color** is the color of the line/bar.

- **Style** is the chart style and has two options: Bar or Line.

- **FTC** is "fact type code" (*e.g.*, METRIC, INT_METRIC, EVENT).

Facts in Y2 will bind to the right side Y axis. Y2 has the same parameters as Y1.

Transformer Load Management (TLM)

The Transformer Load Management panel combines transformer load information in the top chart with connected meter information in the bottom chart.

code block	description
`TLM:`	`TLM:` begins the configuration section.

`Labels:`
`  Visible: True`
`  timeBasis: 'Time Basis'`
`  factCategory: 'Fact Category'`
`  fact_1: 'Fact Name'`
`  factTypeW: 'Weather'`
	The `Labels:` section allows you to define how the drop-down labels appear.
	
	The left parts are keys and **should not** be changed or removed.
	
	The text in quotes **may** be changed to whatever is desired to label the drop-down.

`Rating_Fact: 'RATING' # transformer rating`
`Count_Fact: 'CNT_INT_3600_KWH_USAGE_EST' #number of connected meters`
 	
`Rating_Percentiles:`
`  - 100`
`  - 165`
	• Rating_Fact declares the fact lookup for the transformer's rating value.
	
	• Count_Fact declares the fact for the number of contributing meters.
	
	• Rating_Percentiles controls the two percentage values for rating (for example: 100%, 165%).

`INT_3600:`
`  Name: 'Hourly'`
`  Chart1: # Line_Tx View`
`    Height: 150`
`    Fact_Categories:`
`      kWh Aggregated by Phase:`
`        Name: 'kWh Aggregated by Phase'`
`      kWh Aggregated:`
`        Name: 'kWh Aggregated'`
`      Average Volt:`
`        Name: 'Volt'`
	The items are tiered by time basis.
	
	Name controls the friendly time basis name
	
	`Chart1` controls the transformer view chart. A height can be set along with various fact categories and their respective friendly names.

`  Chart2: # Meter View`
`    Height: 150`
`    METRICS:`
`      - kWh`
`      - Volt`
	`Chart2` controls the meter view chart. A height can be declared along with METRICS, which are fact categories controlling which Metric fact will render in the bottom chart.

Appendix: Code Templates

CHART_SETTING Code Template

```
COLORS:
  factBasedColors:
   Aggregated: "rgb(0, 114, 169)" # blue
   Derived: "rgb(120, 120, 120)" # grey
   Estimated: "rgb(120, 120, 90)" # greyish green
   Interpolated: "rgb(238, 154, 0)" # orange

  eventColors:
  - "rgb(0, 0, 102)"
  - "rgb(0, 102, 0)"
  - "rgb(102, 0, 0)"
  - "rgb(32, 32, 32)"
  - "rgb(153, 0, 76)"
  - "rgb(153, 153, 0)"
  - "rgb(0, 102, 102)"

  metricColors:
  - "rgb(236, 219, 24)" # yellow for chart (weather)
  - "rgb(181, 168, 24)" # yellow for Y labels (weather axis)
  - "rgb(135, 206, 250)" # blue for last year
  - "rgb(0, 114, 169)" # color1 for chart
  - "rgb(120, 120, 120)" # alt color: color2 for chart
  - "rgb(238, 154, 0)" # alt color: color3 for chart
  - "rgb(120, 120, 90)" # alt color: color4 for chart
  - "rgb(238, 130, 0)" # alt color: color5 for chart
  - "rgb(120, 90, 120)" # alt color: color6 for chart
  - "rgb(215, 154, 0)" # alt color: color7 for chart
  - "rgb(77, 77, 77)" # MIN color
  - "rgb(77, 77, 77)" # MAX color
  - "rgb(77, 77, 77)" # MEDIAN color
  - "rgb(77, 77, 77)" # AVERAGE color
  - "rgb(190, 42, 42)" # 10th percentile color
  - "rgb(0, 238, 0)" # 90th percentile color
  - "rgb(190, 42, 42)" # low std dev color
  - "rgb(0, 238, 0)" # high std dev color

  bottomChartColors:
  - "rgb(9, 129, 154)" # light blue color for bottom chart series 1
  - "rgb(178, 34, 34)" #  red color for bottom chart series 2
  - "rgb(0, 255, 127)" # green color for bottom chart series 3
  - "rgb(147, 112, 219)" # purple color for bottom chart series 4
```

```
  - "rgb(0, 0, 0)" # black for power outs

 segmentColors:
- "rgb(0, 238, 0)"
- "rgb(190, 42, 42)"
- "rgb(0, 238, 0)"
- "rgb(190, 42, 42)"

 highlightColor:
- "#FFFF00" # yellow color when dragging on a chart
```

FILTER_CONFIG Code Template

```
EM:
    - table: POINT
      label: 'Electric Meter Point ID'
      column: point_id
    - table: POINT
      label: 'Electric Meter ID'
      column: point_tag
    - table: POINT
      label: 'Electric Meter Name'
      column: point_name
    - table: FACT
      label: 'Bill Cycle'
      column: fact_lookup|BILL_CYCLE
    - table: FACT
      label: 'Line Transformer'
      column: fact_lookup|LINE_TX
GM:
    - table: POINT
      label: 'Gas Meter Point ID'
      column: point_id
    - table: POINT
      label: 'Gas Meter ID'
      column: point_tag
    - table: POINT
      label: 'Gas Meter Name'
      column: point_name
    - table: FACT
      label: 'Bill Cycle'
      column: fact_lookup|BILL_CYCLE
WM:
    - table: POINT
      label: 'Water Meter Point ID'
      column: point_id
    - table: POINT
      label: 'Water Meter ID'
      column: point_tag
    - table: POINT
      label: 'Water Meter Name'
      column: point_name
    - table: FACT
      label: 'Bill Cycle'
      column: fact_lookup|BILL_CYCLE

LINE_TX:
    - table: POINT
      label: 'Line Transformer Point ID'
      column: point_id
    - table: POINT
      label: 'Line Transformer ID'
      column: point_tag
    - table: POINT
      label: 'Line Transformer Name'
      column: point_name

FEEDER:
```

```
    - table: POINT
      label: 'Feeder Point ID'
      column: point_id
    - table: POINT
      label: 'Feeder ID'
      column: point_tag
    - table: POINT
      label: 'Feeder Name'
      column: point_name

BILL_CYCLE:
    - table: POINT
      label: 'Bill Cycle Point ID'
      column: point_id
    - table: POINT
      label: 'Bill Cycle ID'
      column: point_tag
    - table: POINT
      label: 'Bill Cycle Name'
      column: point_name

LP_CLASS:
    - table: POINT
      label: 'Load Profile Class Point ID'
      column: point_id
    - table: POINT
      label: 'Load Profile Class ID'
      column: point_tag
    - table: POINT
      label: 'Load Profile Class Name'
      column: point_name

PRMS:
    - table: POINT
      label: 'Premise Point ID'
      column: point_id
    - table: POINT
      label: 'Premise ID'
      column: point_tag
    - table: POINT
      label: 'Premise Name'
      column: point_name

ZIP:
    - table: POINT
      label: 'Zip Code Point ID'
      column: point_id
    - table: POINT
      label: 'Zip Code ID'
      column: point_tag
    - table: POINT
      label: 'Zip Code Name'
      column: point_name

RATE:
    - table: POINT
      label: 'Rate Point ID'
      column: point_id
    - table: POINT
      label: 'Rate ID'
      column: point_tag
    - table: POINT
      label: 'Rate Name'
      column: point_name
```

GOTO_INFO Code Template

```
PARENT_POINTS:
    EM:
        - EM|RELATION|PRMS: 'Premise'
        - EM|RELATION|LINE_TX: 'Transformer'

    GM:
        - GM|RELATION|PRMS: 'Premise'
        - GM|RELATION|ACCNT: 'Account'

    LINE_TX:
        - LINE_TX|RELATION|FEEDER: 'Feeder'

    PRMS:
        - PRMS|RELATION|ZIP: 'Postal Code'

CHILDREN_POINTS:
    LINE_TX:
        - EM|RELATION|LINE_TX: 'Electric Meter'
```

MAPS_INFO_POPUP Code Template

```
    ## Point Popup Info ##
     GM:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            STATUS:
                FTC: 'RELATION'
                Label: "Status"
            ADDRESS1:
                FTC: 'ATTRIBUTE'
                Label: "Address"
            ZIP:
                FTC: 'RELATION'
                Label: 'Postal Code'
            BILL_CYCLE:
                FTC: 'RELATION'
                Label: "Bill Cycle"

     LINE_TX:
        GENERAL_SETTINGS:
            popup_background_color: 'light blue'
            popup_text_color: 'black'
            popup_font: '14px arial'
        POINT_INFO:
            CNT_DAILY_KWH_USAGE_AGG_TEST:
                Label: 'Meters per Transformer'
                FTC: 'NUM_ATTR'
            FEEDER:
                FTC: 'RELATION'
                Label: "Feeder"
            PHASE:
                FTC: 'ATTRIBUTE'
                Label: "Phase"
     EM:
        GENERAL_SETTINGS:
            popup_background_color: 'light blue'
            popup_text_color: 'black'
            popup_font: '14px arial'
        POINT_INFO:
            STATUS:
                FTC: 'RELATION'
                Label: "Status"
            ADDRESS1:
                FTC: 'ATTRIBUTE'
                Label: "Address"
            ZIP:
```

```
                FTC: 'RELATION'
                Label: 'Postal Code'

    BILL_CYCLE:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            LINE_TX:
                FTC: 'RELATION'
                Label: "Transformer"

    ZIP:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            LINE_TX:
                FTC: 'RELATION'
                Label: "Transformer"

    PRMS:
        GENERAL_SETTINGS:
            background_color: '#ffffff'
            text_color: '#000000'
            font: '14px arial'
        POINT_INFO:
            STD_PLACE:
                FTC: 'RELATION'
                Label: "STD_PLACE"
```

MAPS_RENDER_AS Code Template

```
    ## Render As ##
    EM:
        GENERAL_SETTINGS:
            metrics:
            related_point_types:
            default_zoom: '14'
            peer_point_limit: 5000
            peer_polygon_limit: 1000
            polygon_point_limit: 3000
            radius: '50'
            show_point: 'true'
            show_area: 'false'
        CURRENT_POINT_RENDER_AS:
            style: 'bar_chart'
            background_color: '#ffffff'
            border_color: '#000000'
            text_color: 'red'
            font_size: '10'
        PEER_POINT_RENDER_AS:
            style: 'circle'
            background_color: '#fffff1'
            border_color: '#000000'
            text_color: 'black'
            font_size: '10'
        RELATED_POINT_RENDER_AS:
            style: 'circle'
            background_color: '#FF0000'
            border_color: '#000000'
            text_color: 'white'
            font_size: '10'

    LINE_TX:
        GENERAL_SETTINGS:
```

```
        metrics:
        related_point_types:
            EM|LINE_TX|POINT:
                Electric Meter
        default_zoom: '14'
        peer_point_limit: 5000
        peer_polygon_limit: 1000
        polygon_point_limit: 3000
        radius: '50'
        show_point: 'false'
        show_area: 'show'
    CURRENT_POINT_RENDER_AS:
        style: 'bar_chart'
        background_color: '#FF0000'
        border_color: '#000000'
        text_color: 'red'
        font_size: '10'
    PEER_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#7171d6'
        border_color: '#000000'
        text_color: 'black'
        font_size: '10'
    RELATED_POINT_RENDER_AS:
        style: 'circle'
        background_color: '#7171d6'
        border_color: '#000000'
        text_color: 'white'
        font_size: '10'
```

POINT_INFO Code Template

```
EM:
    options:
            POINT_ID:
                Label: 'Point ID'
                FTC: 'POINT'
            STATUS:
                Label: 'Status'
                FTC: 'RELATION'
            LINE_TX:
                Label: 'Transformer'
                FTC: 'RELATION'
            BILL_CYCLE:
                Label: 'Bill Cycle'
                FTC: 'RELATION'

    options_popup:
            POINT_ID:
                Label: 'Point ID'
                FTC: 'POINT'
            STATUS:
                Label: 'Status'
                FTC: 'RELATION'
            LINE_TX:
                Label: 'Transformer'
                FTC: 'RELATION'
            BILL_CYCLE:
                Label: 'Bill Cycle'
                FTC: 'RELATION'
            DISTRICT:
                Label: 'District'
                FTC: 'RELATION'
            SSN_DEVICE_STATUS:
                Label: 'Device Status'
                FTC: 'RELATION'

LINE_TX:
```

```
        options:
                PHASE:
                    Label: 'Phase'
                    FTC: 'ATTRIBUTE'
                POINT_ID:
                    Label: 'Point ID'
                    FTC: 'POINT'
                FEEDER:
                    Label: 'Feeder ID'
                    FTC: 'RELATION'
                RATING:
                    Label: 'Rating'
                    FTC: 'NUM_ATTR'
                CNT_DAILY_KWH_USAGE_AGG_TEST:
                    Label: '# of Meters'
                    FTC: 'NUM_ATTR'
                INSTALLATION_DT:
                    Label: 'Installation Date'
                    FTC: 'ATTRIBUTE'

        options_popup:
                PHASE:
                    Label: 'Phase'
                    FTC: 'ATTRIBUTE'
                POINT_ID:
                    Label: 'Point ID'
                    FTC: 'POINT'
                FEEDER:
                    Label: 'Feeder ID'
                    FTC: 'RELATION'
                RATING:
                    Label: 'Rating'
                    FTC: 'NUM_ATTR'
                CNT_DAILY_KWH_USAGE_AGG_TEST:
                    Label: '# of Meters'
                    FTC: 'NUM_ATTR'
```

POINT_SEARCH_COLUMN Code Template

```
EM:
    - STANDARD:
        pointID: 'Point ID'
        pointName: 'Asset ID'

    - STATUS:
        Label: 'Asset Status'
        FTC: 'RELATION'
    - RATE:
        Label: 'Rate Class'
        FTC: 'RELATION'
    - ADDRESS1:
        Label: 'Address'
        FTC: 'ATTRIBUTE'
    - GEO_CITY:
        Label: 'City'
        FTC: 'ATTRIBUTE'
    - GEO_ZIP:
        Label: 'Postal Code'
        FTC: 'RELATION'

LINE_TX:
    - STANDARD:
        pointID: 'Point ID'
        pointName: 'Asset ID'

    - RATING:
        Label: 'Rating'
        FTC: NUM_ATTR
```

```
    - PHASE:
        Label: 'Phase'
        FTC: 'ATTRIBUTE'
    - INSTALLATION_DT:
        Label: 'Installation Date'
        FTC: 'ATTRIBUTE'
    - FEEDER:
        Label: 'Feeder'
        FTC: 'RELATION'
```

RAKE Code Template

```
#### EM ####
EM:
    # 'Add Panel' dropdown options - These are available panels for this ptc
    dropdown_view:
        label: 'View'
        options:
            - metricSuper: 'Metric'
            - eventSuper: 'Event'
            - map: 'Map'
        default_open:
            - metricSuper
            - eventSuper
            - map
    # Super Metric Panel Config
    Metric:
        Labels:
            Visible: True
            timeBasis: 'Time Basis'
            factCategory: 'Units of Measure'
            viewMode: 'Chart Type'
            fact_1: 'Data Type 1'
            fact_2: 'Data Type 2'
            benchmark: 'Benchmark'
            factTypeW: 'Weather'
            agg: 'Statistics'

        DAILY:
            Selected: True
            Name: 'Daily'
            Chart1:
                Height: 250
                View:
                    Single:
                        Enabled: True
                    Double:
                        Enabled: True
                    All:
                        Enabled: True
                    Best:
                        Selected: True
                        Enabled: True
                    Stacked:
                        Enabled: True
                Fact_Categories:
                    kWh:
                        Selected: True
                        Name: 'kWh'
                        Facts:
                            DAILY_KWH_USAGE_DERIVED: 'Derived'
                            DAILY_KWH_USAGE_AGG: 'Aggregated'
                            DAILY_KWH_USAGE_EST: 'Estimated'
                            DAILY_KWH_USAGE_INTER: 'Interpolated'
                    Vrms:
                        Name: 'Volt'
                        Facts:
                            DAILY_VRMS: 'Vrms'
                            DAILY_VRMS_AGG: 'Aggregated Vrms'
```

```
            Benchmark:
                LINE_TX:
                    Name: 'Transformer'
                    Facts:
                        P90_DAILY_KWH_USAGE_DERIVED:
                            Name: 'P95 Daily kWh Usage Derived'
                            Color: 'Red'
                        P10_DAILY_KWH_USAGE_DERIVED:
                            Name: 'P5 Daily kWh Usage Derived'
                            Color: 'Green'
                LP_CLASS:
                    Name: 'LP Class'
                    Facts:
                        P90_DAILY_KWH_USAGE_AGG:
                            Name: 'P90 Daily kWh Usage Aggregated'
                            Color: 'Red'
                        P10_DAILY_KWH_USAGE_AGG:
                            Name: 'P10 Daily kWh Usage Aggregated'
                            Color: 'Green'
        Chart2:
            Height: 100
            METRICS:
                #ACTUAL_KWH_REGISTER:
                #    Name: 'Actual kWh Register'
                #    Color: 'Blue'
                #ACTUAL_KWH_REGISTER_OVERLAP:
                #    Name: 'Actual kWh Register Overlap'
                #    Color: 'Green'
            COUNTS:
                DAILY_POWER_OUT_CNT:
                    Name: 'Power Outages'
                    Color: 'Black'
        Chart3:
            Height: 50
            METRICS:
                #ACTUAL_VRMS:
                #    Name: 'Actual VRMS'
                #    Color: 'Purple'

    MONTHLY:
        Name: 'Monthly'
        Chart1:
            Height: 250
            View:
                Single:
                    Enabled: True
                Double:
                    Enabled: True
                All:
                    Selected: True
                    Enabled: True
                Best:
                    Enabled: True
                Stacked:
                    Enabled: True
            Fact_Categories:
                kWh:
                    Selected: True
                    Name: 'kWh'
                    Facts:
                        MONTHLY_SUM_DAILY_KWH_USAGE_DERIVED: 'Derived'
                        MONTHLY_SUM_DAILY_KWH_USAGE_AGG: 'Aggregated'
        Chart2:
            Height: 50
            METRICS:

    WEEKLY:
        Name: 'Weekly'
        Chart1:
            Height: 250
            View:
```

```
                Single:
                    Enabled: True
                Double:
                    Enabled: True
                All:
                    Selected: True
                    Enabled: True
                Best:
                    Enabled: True
                Stacked:
                    Enabled: True
        Fact_Categories:
            kWh:
                Selected: True
                Name: 'kWh'
                Facts:
                    WEEKLY_SUM_DAILY_KWH_USAGE_DERIVED: 'Derived'
                    WEEKLY_SUM_DAILY_KWH_USAGE_AGG: 'Aggregated'

    Chart2:
        Height: 50
        METRICS:

INT_3600:
    Name: 'Hourly'
    Chart1:
        Height: 300
        View:
                Single:
                    Enabled: True
                Double:
                    Enabled: True
                All:
                    Enabled: True
                Best:
                    Selected: True
                    Enabled: True
                Stacked:
                    Enabled: True
        Fact_Categories:
            kWh:
                Name: 'kWh'
                Facts:
                #    INT_3600_KWH_USAGE: 'Usage'
                #    INT_3600_KWH_USAGE_DERIVED: 'Derived'
    Chart2:
        Height: 150
        METRICS:
            #INT_3600_KWH_USAGE_RAW:
            #    Name: 'Houly kWh Raw Consumption'
            #    Color: 'Blue'

INT_1800:
    Name: '30 Minute'
    Chart1:
        Height: 300
        View:
                Single:
                    Enabled: True
                Double:
                    Enabled: True
                All:
                    Enabled: True
                Best:
                    Selected: True
                    Enabled: True
                Stacked:
                    Enabled: True
        Fact_Categories:
            kWh:
                Name: 'kWh'
                Facts:
```

```
                                    INT_1800_KWH_USAGE: 'Usage'
            Chart2:
                Height: 50
                METRICS:


        INT_900:
            Name: '15 Minute'
            Chart1:
                Height: 300
                View:
                    Single:
                        Enabled: True
                    Double:
                        Enabled: True
                    All:
                        Enabled: True
                    Best:
                        Selected: True
                        Enabled: True
                    Stacked:
                        Enabled: True
                Fact_Categories:
                    kWh:
                        Name: 'kWh'
                        Facts:
                            INT_900_KWH_USAGE_DEP: 'Usage'

            Chart2:
                Height: 50
                METRICS:

    # Super Event/Relation/Segment Panel Config
    Event:
        Labels:
            Visible: True
            timeBasis: 'Time Basis'
            factCategory: 'Fact Category'
            viewMode: 'View'
            fact_1: 'Fact Name'

        SECOND:
            Selected: True
            Name: 'Actual'
            Chart1:
                View:
                    Single:
                        Enabled: True
                    All:
                        Selected: True
                        Enabled: True
                Fact_Categories:
                    #Event:
                        #Name: 'Event'
                        #FTC: 'EVENT' # Fact Type Code, Required

                    CUSTOM_SETS:
                        Meter_Set:
                            Name: 'Meter Events'
                            EVENT:
                                (GS)_STANDBY_ACCUMULATION_ERROR: '(GS) Standby Accumulation Error'
                                (GS)_ENDPOINT_TIME_SYNCHRONIZATION: '(GS) Endpoint Time Synchronization'
                                (GS)_LEADING_KVARH: '(GS) Leading kvarh'
                                (GS)_VOLTAGE_MAX_THRESHOLD: '(GS) Voltage Max Threshold'
                                (GS)_RECEIVED_KWH: '(GS) Received kWh'
                                (GS)_FIRMWARE_DEBUG_1: '(GS) Firmware Debug 1'
                                (GS)_TIME_ADJUSTMENT_ERROR: '(GS) Time Adjustment Error'
                                (GS)_VOLTAGE_MIN_THRESHOLD: '(GS) Voltage Min Threshold'
                                (GS)_EXCEEDS_THE_MAXIMUM_ALLOWABLE_LAYERS_EVENT: '(GS) Exceeds the maximum al
                                (GS)_DCW_PRE-EMPTED_OR_REMOVED: '(GS) DCW pre-empted or removed'
                                (GS)_ENDPOINT_POWER_OUTAGE: '(GS) Endpoint Power Outage'
                                (GS)_RF_SYSTEM_STATUS_UPDATED: '(GS) RF System status updated'
```

```
                                              (GS) RF System status updated: '(GS) Demand Reset Occurred'
                                              (GS)_LARGE_DCW_INSTALLED: '(GS) Large DCW installed'
                                              (GS)_SMALL_DCW_INSTALLED: '(GS) Small DCW installed'
                                              (GS)_ENDPOINT_POWER_RESTORE: '(GS) Endpoint Power Restore'
                                              (GS)_RESIDENTIAL_ENERGY_THRESHOLD_EXCEEDED: '(GS) Residential Energy Threshol
                                              (GS)_PRIMARY_POWER_DOWN: '(GS) Primary Power Down'
                                              (GS)_SCHEDULED_DEMAND_RESET_SUCCESS: '(GS) Scheduled Demand Reset Success'
                                              (GS)_ENDPOINT_COLLECTOR_ASSOCIATION_CHANGED: '(GS) Endpoint Collector Associa
                                              (GS)_NEXT_DEMAND_RESET_DATE_CHANGED: '(GS) Next Demand Reset Date Changed'
                                     RELATION:
                                     SEGMENT:

                             Account_Set:
                                     Name: 'Account Events'
                                     EVENT:
                                              CONTACT_110_-
_HIGH_BILL_INQUIRY: 'Contact: 110 - High Bill Inquiry'
                                              CONTACT_112_-
_METER_READ_QUESTIONS: 'Contact: 112 - Meter Read Questions'
                                              CONTACT_120_-
_CUSTOMER_INFORMATION_UPDATE: 'Contact: 120 - Customer Information Update'
                                              CONTACT_301_-_CLOSE_ACCOUNT: 'Contact: 301 - Close Account'
                                              CONTACT_302_-_DEMOLITION: 'Contact: 302 - Demolition'
                                              CONTACT_304_-_NEW_SERVICE: 'Contact: 304 - New Service'
                                              CONTACT_306_-_OPEN_ACCOUNT: 'Contact: 306 - Open Account'
                                              CONTACT_307_-_OWNER_QUESTIONS: 'Contact: 307 - Owner Questions'
                                              CONTACT_313_-
_TEMPORARY_DISCONNECT: 'Contact: 313 - Temporary Disconnect'
                                              CONTACT_314_-_ACCOUNT_TRANSFER: 'Contact: 314 - Account Transfer'
                                     RELATION:
                                     SEGMENT:

                             DR_Set:
                                     Name: 'DataRaker Events'
                                     EVENT:
                                              (D)_ISOLATED_POWER_OUT_FLAG: '(D) Isolated Power Out Flag'
                                              (D)_TX_POWER_OUTAGE_FLAG_BK: '(D) TX Power Outage Flag bk'
                                              (D)_DEMAND_RESET_DATE: '(D) Demand Reset Date'
                                              (D)_UP_TREND_FLAG: '(D) Up Trend Flag'
                                              (D)_ISOLATED_POWER_OUT_FLAG_BK: '(D) Isolated Power Out Flag bk'
                                              (D)_DAILY_REGISTER_ROLLOVER: '(D) Daily Register Rollover'
                                              (D)_UP_TICK_FLAG: '(D) Up Tick Flag'
                                              (D)_REGISTER_REVERSE_ERROR_DR: '(D) Register Reverse Error DR'
                                              (D)_TX_POWER_OUTAGE_FLAG: '(D) TX Power Outage Flag'
                                              (D)_DEMAND_RESET_FLAG: '(D) Demand Reset Flag'
                                              (D)_DOWN_TREND_FLAG: '(D) Down Trend Flag'
                                              (D)_DOWN_TICK_FLAG: '(D) Down Tick Flag'
                                              (D)_REGISTER_GAP_FLAG: '(D) Register Gap Flag'
                                              (D)_REGISTER_STATIC_FLAG: '(D) Register Static Flag'
                                              (DR)_DAILY_ISOLATED_POWER_OUT_FLAG: '(DR) Daily Isolated Power Out Flag'
                                              (DR)_DAILY_REGISTER_GAP_FLAG: '(DR) Daily Register Gap Flag'
                                              (DR)_DAILY_POWER_OUTAGE_FLAG: '(DR) Daily Power Outage Flag'

                     chart2:
                             EVENT:
                                 #DAILY_KWH_REGISTER_STATIC: 'Register Static'
                                 #DAILY_KWH_REGISTER_STATIC: 'Static Register'
                                 #DAILY_KWH_REGISTER_SPIKE: 'Spike Register'
                                 #DAILY_KWH_REGISTER_ZERO: 'Zero Register'
                                 #DAILY_KWH_REGISTER_ROLLOVER: 'Rollover Register'
                             RELATION:
                                 #ZIP: 'Zip'
                             SEGMENT:

                     chart3:
                             EVENT:
                             RELATION:
                                 #LINE_TX: 'Line TX'
                             SEGMENT:

    #### LINE TRANSFORMER ####
    LINE_TX:
```

```yaml
    # 'Add Panel' dropdown options - These are available panels for this ptc
  dropdown_view:
      label: 'View'
      options:
          - tlm: 'Transformer Load Management'
          - heat: 'Heat'
          - map: 'Map'
          - eventSuper: 'Event'
      default_open:

# TLM Panel Config
 TLM:
      Labels:
          Visible: True
          timeBasis: 'Time Basis'
          factCategory: 'Fact Category'
          fact_1: 'Fact Name'
          factTypeW: 'Weather'

      Rating_Fact: 'RATING' # transformer rating
      Count_Fact: 'CNT_INT_3600_KWH_USAGE_EST' #number of connect meters

      Rating_Percentiles:
          - 100
          - 165

      INT_3600:
          Name: 'Hourly'
          Chart1: # Line_Tx View
              Height: 150
              Fact_Categories:
                  kWh Aggregated by Phase:
                      Name: 'kWh Aggregated by Phase'
                  kWh Aggregated:
                      Name: 'kWh Aggregated'
                  Average Volt:
                      Name: 'Volt'

          Chart2: # Meter View
              Height: 150
              METRICS:
                  - kWh
                  - Volt

# Heat Map
 Heat:
      Labels:
          Visible: True
          timeBasis: 'Time Basis'
          factCategory: 'Fact Category'
          fact: 'Fact Name'

      INT_3600:
          Name: 'Hourly'
          Chart1:
              Fact_Categories:
                  kWh Phase:
                      Name: 'kWh Phase'
                      Facts:
                          SUM_INT_3600_KWH_USAGE_INTER_PHASE_C: 'Interpolated C'
                          SUM_INT_3600_KWH_USAGE_PHASE_B: 'Usage B'

                  kWh Avg:
                      Name: 'kWh Avg'
                      Facts:
                          AVG_INT_3600_KWH_USAGE: 'Average Usage'

  # Super Metric Panel Config
  Metric:
      Labels:
          Visible: True
          timeBasis: 'Time Basis'
```

```
                factCategory: 'Units of Measure'
                viewMode: 'Chart Type'
                fact_1: 'Data Type 1'
                fact_2: 'Data Type 2'
                benchmark: 'Benchmark'
                factTypeW: 'Weather'
                agg: 'Statistics'

        DAILY:
            Selected: True
            Name: 'Daily'
            Chart1:
                Height: 250
                View:
                    Single:
                        Enabled: True
                    Double:
                        Enabled: True
                    All:
                        Selected: True
                        Enabled: True
                    Best:
                        Enabled: True
                    Stacked:
                        Enabled: True
                Fact_Categories:
                    kWh Avg:
                        Selected: True
                        Name: 'kWh'
                        Facts:
                            AVG_DAILY_KWH_USAGE_DERIVED: 'Avg Daily kWh Derived'
            Chart2:
                Height: 50
                METRICS:
                    #ACTUAL_VRMS:
                    #    Name: 'Actual VRMS'
                    #    Color: 'Purple'

        INT_3600:
            Name: 'Hourly'
            Selected: True
            Chart1:
                Height: 250
                View:
                    Single:
                        Enabled: True
                    Double:
                        Enabled: True
                    All:
                        Selected: True
                        Enabled: True
                    Best:
                        Enabled: True
                    Stacked:
                        Enabled: True
                Fact_Categories:
                    kWh Aggregated by Phase:
                        Selected: True
                        Name: 'kWh Aggregated by Phase'
                        Facts:
                    kWh Aggregated:
                        Name: 'kWh Aggregated'
                        Facts:
                    Average Volt:
                        Name: 'Volt'
                        Facts:

            Chart2:
                Height: 50
                METRICS:
                    #ACTUAL_VRMS:
                    #    Name: 'Actual VRMS'
```

```
                            #    Color: 'Purple'

     # Super Event/Relation/Segment Panel Config
      Event:
          Labels:
              Visible: True
              timeBasis: 'Time Basis'
              factCategory: 'Event Category'
              viewMode : 'View'
              fact_1: 'Fact Name'

          DAILY:
              Selected: True
              Name: 'Daily'
              Chart1:
                  View:
                      Single:
                          Enabled: True
                      All:
                          Selected: True
                          Enabled: True
                  Fact_Categories:
                      DR Core:
                          Name: 'DR Core'
                          Selected: True
                          FTC: 'EVENT' # Fact Type Code, Required
                  CUSTOM_SETS:

              chart2:
                  EVENT:
                      #DAILY_KWH_REGISTER_STATIC: 'Register Static'
                      #DAILY_KWH_REGISTER_GAP: 'Register Gap'
                      #DAILY_KWH_REGISTER_STATIC: 'Static Register'
                      #DAILY_KWH_REGISTER_SPIKE: 'Spike Register'
                      #DAILY_KWH_REGISTER_ZERO: 'Zero Register'
                      #DAILY_KWH_REGISTER_ROLLOVER: 'Rollover Register'
                  RELATION:
                      #ZIP: 'Zip'
                  SEGMENT:

          INT_3600:
              Selected: True
              Name: 'Hourly'
              Chart1:
                  View:
                      Single:
                          Enabled: True
                      All:
                          Selected: True
                          Enabled: True
                  Fact_Categories:
                      DR Core:
                          Name: 'DR Core'
                          Selected: True
                          FTC: 'EVENT' # Fact Type Code, Required
                  CUSTOM_SETS:

              chart2:
                  EVENT:
                      #DAILY_KWH_REGISTER_STATIC: 'Register Static'
                      #DAILY_KWH_REGISTER_GAP: 'Register Gap'
                      #DAILY_KWH_REGISTER_STATIC: 'Static Register'
                      #DAILY_KWH_REGISTER_SPIKE: 'Spike Register'
                      #DAILY_KWH_REGISTER_ZERO: 'Zero Register'
                      #DAILY_KWH_REGISTER_ROLLOVER: 'Rollover Register'
                  RELATION:
                      #ZIP: 'Zip'
                  SEGMENT:
#### ZIP CODE ####
  ZIP:
      # 'Add Panel' dropdown options - These are available panels for this ptc
      dropdown_view:
```

```
            label: 'View'
        options:
            - metricSuper: 'Metric'
        default_open:
            - metricSuper
# Super Metric Panel Config
Metric:
    Labels:
        Visible: True
        timeBasis: 'Time Basis'
        factCategory: 'Units of Measure'
        viewMode: 'Chart Type'
        fact_1: 'Data Type 1'
        fact_2: 'Data Type 2'
        benchmark: 'Benchmark'
        factTypeW: 'Weather'
        agg: 'Statistics'
```