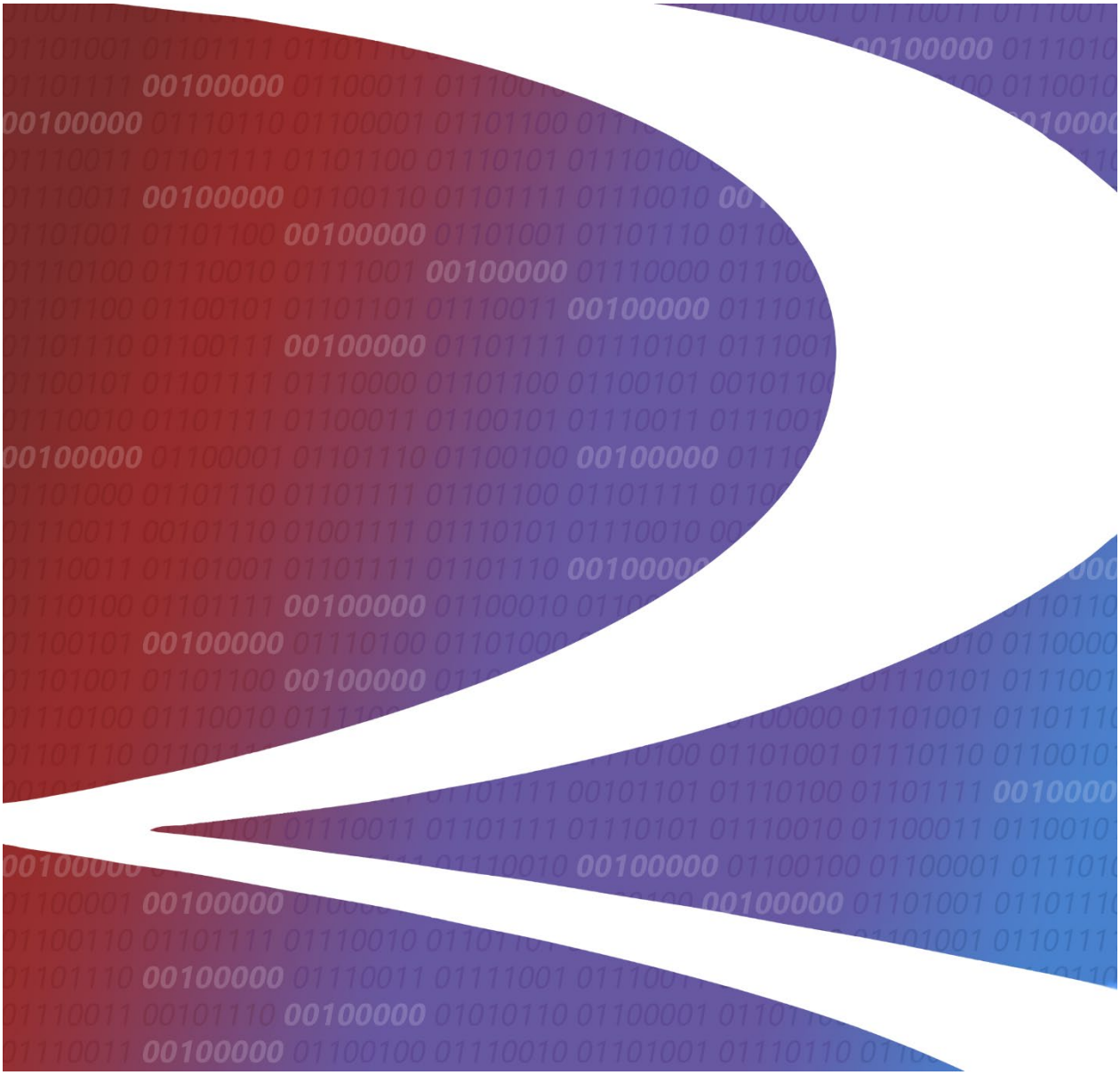

Sensor Telematics and Registry (STAR) User Guide

Last Updated: January 2025

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List of Exhibits

Learning about Sensor Telematics and Registry

Sensor Telematics and Registry (STAR) System is an application that enables device owners to share telematics data with appropriate parties throughout North America and visualize sensor data on a map via the STAR user interface to assist with day-to-day device management.

Overview

STAR enables users to view the location of telematics devices. STAR utilizes ITSS-based messages and the Rail Industry Geographic Information System (RIGIS) network to provide detailed location data. Users can visualize the last reported geographic position of individual devices as well as view historical data.

This document describes how to use STAR through the following major sections:

- Getting Started on page 2 describes how to access and log in to the system.
- Viewing Device Location and Status Information on page 5 describes how to view the location of telematics devices as well as status information provided by the devices.

For additional information, contact the Railinc Customer Success Center (see Accessing the Railinc Customer Success Center on page 1).

System Requirements

For information about the system requirements of Railinc web applications and for information about downloading compatible web browsers and file viewers, refer to the *Railinc UI Dictionary*.

Accessing the Railinc Customer Success Center

The Railinc Customer Success Center provides reliable, timely, and high-level support for Railinc customers. Representatives are available to answer calls and respond to emails from 7:00 a.m. to 7:00 p.m. Eastern time, Monday through Friday, and provide on-call support via pager for all other hours to ensure support 24 hours a day, 7 days a week. Contact us toll-free by phone at 877-RAILINC (1-877-724-5462) or send an email directly to csc@railinc.com.

Getting Started

STAR uses Railinc Single Sign-On (SSO) to manage permissions. To access SSO, view the Railinc portal at https://www.railinc.com and select **Customer Login** at the top right of the page.

Registering to Use Railinc SSO

Each STAR user must register to use Railinc Single Sign-On (SSO). If you are not already registered, refer to the *Railinc Single Sign-On and Launch Pad User Guide* for more information. Once you have completed SSO registration, request access to STAR within SSO.

Requesting Access to STAR

After you receive authorization to use Railinc SSO, you must request access to STAR by following instructions in the *Railinc Single Sign-On and Launch Pad User Guide*.

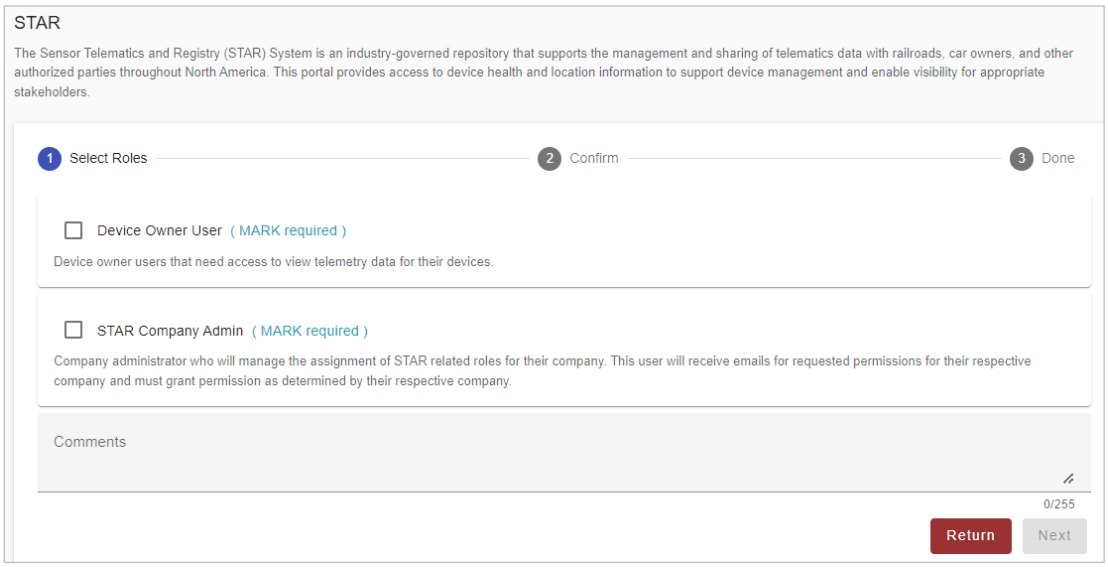
Your level of access and authorization for STAR is determined when you request access through Railinc SSO. Exhibit 1 shows a complete list of STAR roles as seen in SSO.

Exhibit 1. User Roles and Tasks

Role	Description
STAR Company Admin	Company Administrator who will manage the assignment of STAR-related roles for their company. This user will receive emails for requested permissions for their respective company and must grant permission as determined by their respective company.
Device Owner User	Provides access for telematics device owner users who need access to view data for their devices.

Your assigned user role determines what functions you can perform. User roles are assigned by your company administrator through the Single Sign-On interface (Exhibit 2).

Exhibit 2. STAR Request Permission Showing the STAR Roles



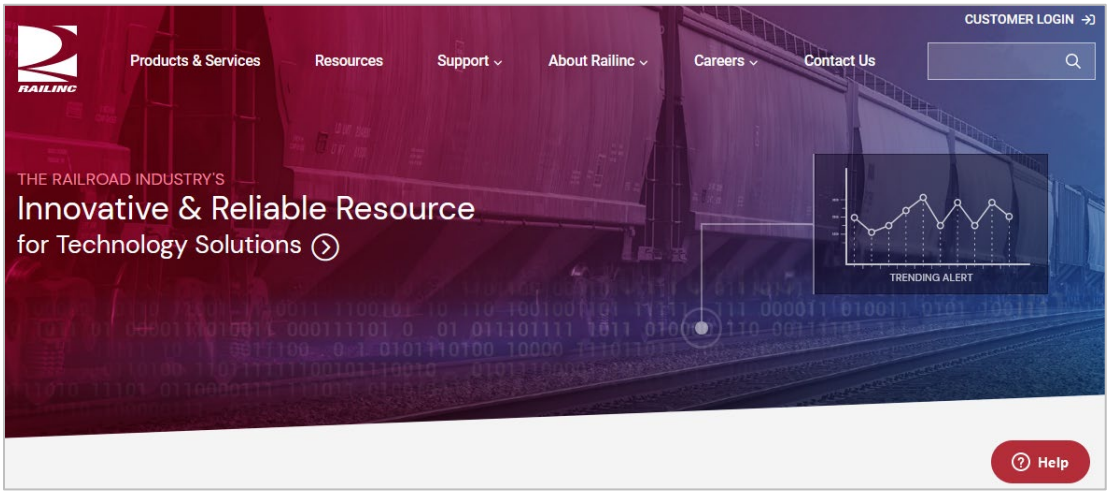
Choose your role(s) and enter the mark for your company. Select **Next** to proceed. Once you receive email notification of access, you can log in and begin using STAR.

Logging In

Use the following procedure to log into STAR:

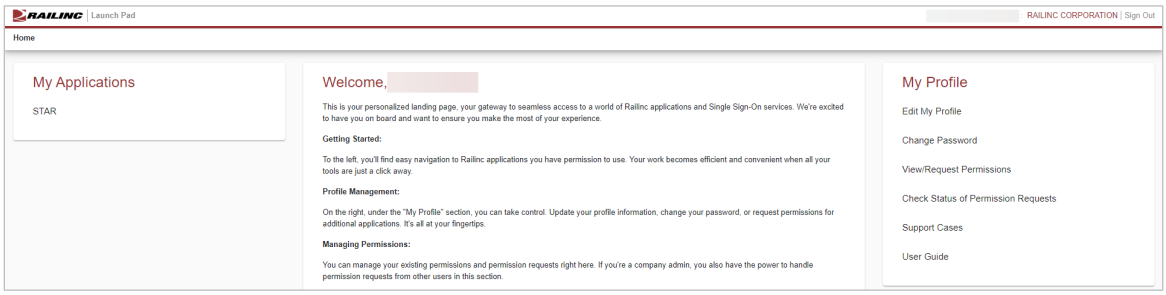
1. Open your internet browser.
2. Enter the following URL: https://www.railinc.com. The Railinc Welcome page is displayed (Exhibit 3).

Exhibit 3. Railinc Welcome Page



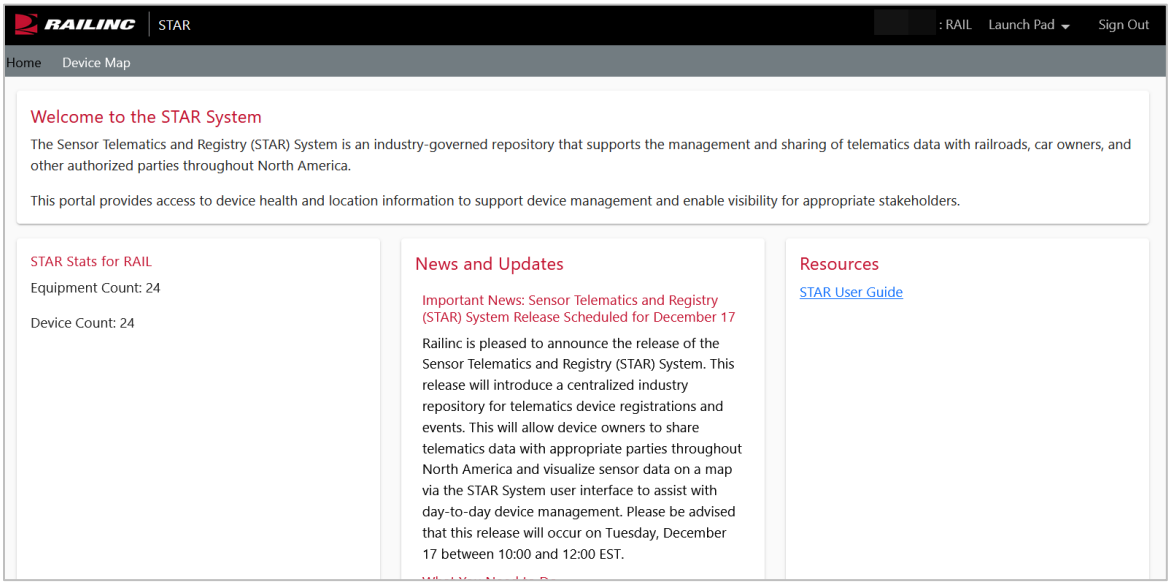
3. Select **Customer Login** at the top right. The Railinc Account Access panel is displayed.
4. In the Account Access panel, enter your **User ID** and **Password**. Select **Sign In**. The Railinc Launch Pad is displayed (Exhibit 4).

Exhibit 4. Railinc Launch Pad



5. Under **My Applications**, select **STAR** (you may need to scroll down). The STAR Home page is displayed (Exhibit 5).

Exhibit 5. STAR Home Page



The STAR Home page contains STAR status information, news, and resources (*STAR User Guide*).

STAR has a menu bar that contains the following options:

Home Return to the STAR Home page after viewing another STAR page. This page displays the Equipment Count and the Device Count for the selected Mark.

Device Map View the location of telematics devices on a map. You can also zoom in to view status information about individual devices (see Viewing Device Location and Status Information on page 5).

Logging Out

Select the **Sign Out** link to end a STAR session.

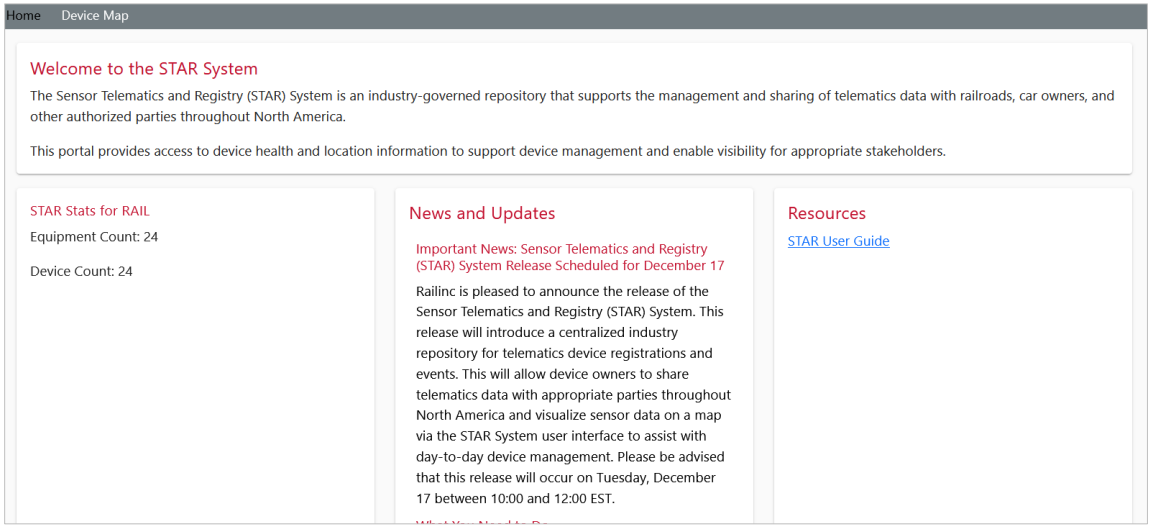
Viewing Device Location and Status Information

The STAR application enables you to view the location of telematics devices as well as status information provided by the devices.

Viewing the Home Page

When STAR is first opened, the Home page is displayed (Exhibit 6).

Exhibit 6. STAR Home Page



The STAR Home page introduces the application and contains the following overall status information for the selected Mark:

Equipment Count — A count of the active equipment IDs in the repository for the selected MARK.

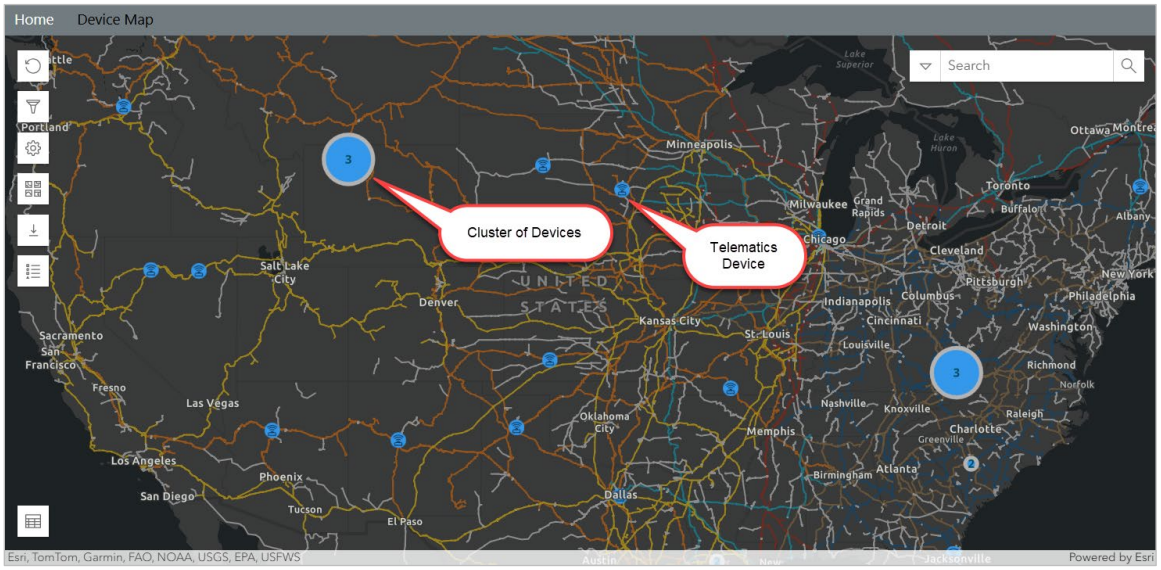
Device Count — A count of the active telematics device associations in the repository for the selected MARK.

Select **Device Map** from the menu bar to view information about individual telematics devices. See Viewing the Device Map on page 6 for more information.

Viewing the Device Map

To search for telematics devices, select **Device Map** from the STAR menu bar. The Device Map page is displayed (Exhibit 7).

Exhibit 7. Device Map Page



The Device Map displays clusters of devices grouped by their spatial proximity to each other (represented by blue circles containing a number) as well as individual telematics devices (represented by ).

Select the following icons to learn information about the devices:

A blue circle containing a number represents a cluster of telematics devices. Select a cluster to zoom in on the map and see smaller clusters and individual telematics devices (see Viewing a Cluster of Devices on page 7).

This icon represents an individual telematics device. Select an individual telematics device to see information about that device. See Viewing Device Details on page 13.

Select this icon to clear user-entered text, reset filters and the zoom level, and close any device popups.

Select this icon to filter the devices displayed on the map, See Filtering Devices on the Map on page 9 for more information.

Select the settings icon to see the User Settings popup, which enables you to set the time zone and the units of measurement. See Specifying User Settings on page 10 for more information.

Select the base map icon to open the Base Map popup, enabling you to switch to a different base map. See Changing the Base Map on page 11 for more information. Select « to close the Base Map popup.

Select the download icon to download a CSV file containing a list of the devices shown on the map as well as all their attributes.

Select the legend icon to open the Legend popup, enabling you to visualize track ownership by track color. See Viewing the Legend on page 12 for more information. Select « to close the Legend popup.

Select the tabular view icon to enable a split screen view including the map and a tabular visualization of the map data. See Using the Tabular View on page 16 for more information. Select the tabular view icon again to close the Tabular View.

Zooming and Panning the Map

To zoom in on a specific area of the map, scroll your mouse wheel forward or press the '+' key on your keyboard.

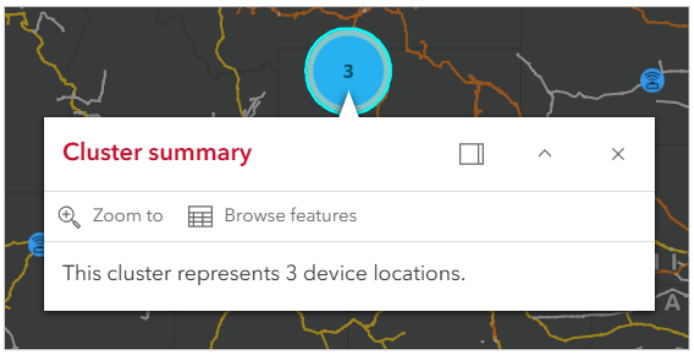
To zoom the map out, move your mouse wheel backward or press the '-' key on your keyboard.

To pan the map (move the map on the screen), simply press and hold the left mouse button while the mouse is over the map. The panning icon (✋) is displayed. Next, move the map to the desired location. When the map is focused on the area you want, release the mouse button.

Viewing a Cluster of Devices

A cluster is a grouping of devices based on their spatial proximity to each other on the map. A cluster is represented by a blue circle containing a number (3). Select the cluster icon to display the Cluster Summary popup (Exhibit 8).

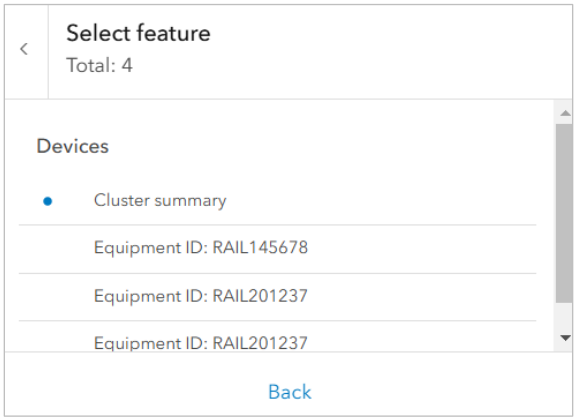
Exhibit 8. Cluster Summary Popup



The Cluster Summary popup enables you to view information about the devices contained in the selected cluster:

- Select the **Zoom to** link to focus the map on the location of the devices within the cluster.
- Select **Browse features** to display the Select Feature popup (see Exhibit 9), which enables you to select an equipment ID and view detailed information about the selected equipment (as described in Viewing Device Details on page 13).

Exhibit 9. Select Feature Popup



Select the back icon (<) at the top left to return to the Cluster Summary popup.

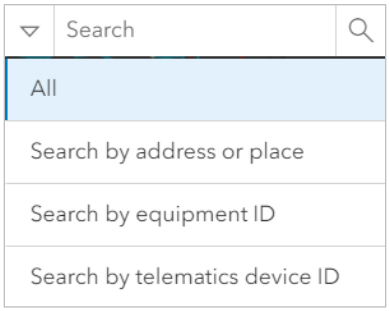
Select the dock icon (⊡) on the Cluster Summary popup to snap the popup to the right side of the screen; select the collapse icon (^) to collapse the popup; or select × to close the popup.

Searching for Devices on the Map

The Search tool (Search) is located at the top right of the map.

To search for devices, simply enter relevant text (e.g., full or partial address, equipment ID, or telematics device ID) in the **Search** field and select the search icon ( ), press the **Enter** key on your keyboard, or select the search options icon ( ) to modify the scope of your search (Exhibit 10).

Exhibit 10. Search Drop-Down List



The Search drop-down list provides the following options:

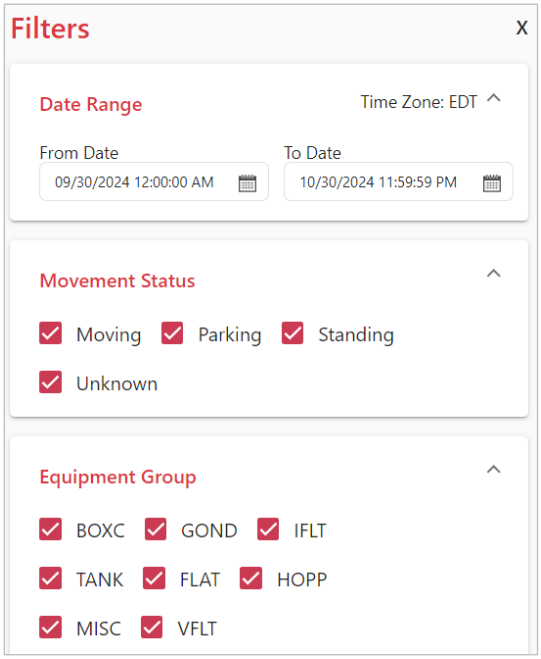
All	STAR searches for any occurrence of the relevant text entered. This is the default.
Search by address or place	STAR searches for full or partial addresses.
Search by equipment ID	STAR searches for rail equipment IDs.
Search by telematics device ID	STAR searches for telematics device IDs.

Note: When searching, only six results are displayed; therefore, it is best to be as specific as possible when specifying your search criteria to receive the most relevant results.

Filtering Devices on the Map

You can filter the map to only display devices that meet criteria that you specify. To set a filter, select the filter icon ( ). The Filter popup is displayed (Exhibit 11).

Exhibit 11. Filter Popup



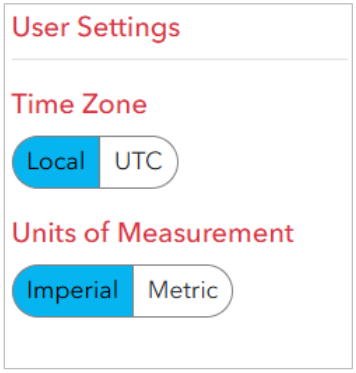
You can specify three different categories of filter criteria:

- Date Range – use the calendar icon ( ) to specify a **From Date** and a **To Date**.
- Movement Status – select one or more checkboxes for movement status.
- Equipment Group – select one or more checkboxes for the rail equipment type.

Specifying User Settings

Select the user settings icon (⚙) to display the User Settings popup (Exhibit 12).

Exhibit 12. User Settings Popup



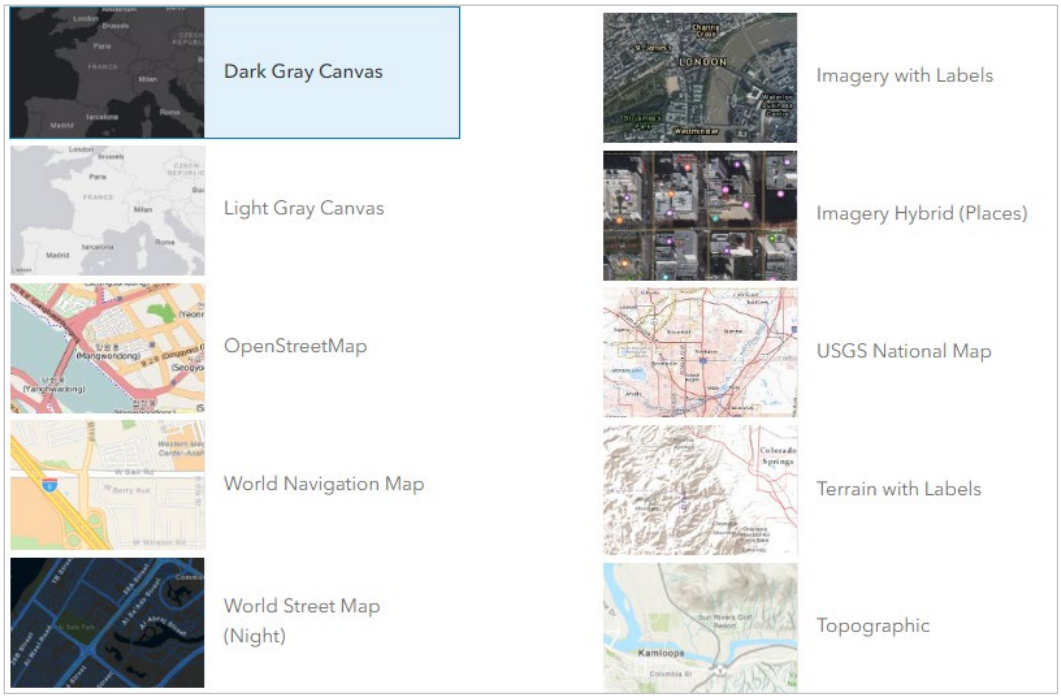
The User Settings popup enables you to set the time zone (local to your computer or UTC) and the units of measurement (imperial or metric). The currently selected settings are highlighted in blue. These user settings affect information in Device Details, the Tabular View and the Historical Events View.

Select « to close the User Settings popup.

Changing the Base Map

You can change the STAR map to have a different base map. Select the base map icon (⊞) to see the options in the Base Map Selection popup (Exhibit 13).

Exhibit 13. Base Map Selection Popup



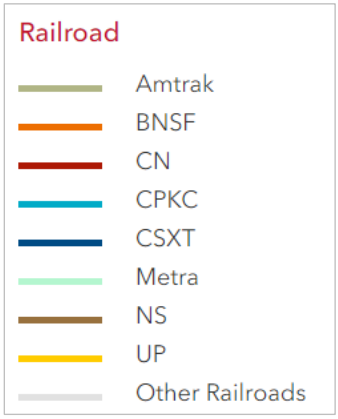
Select any option to change the appearance of the base map. The Dark Gray Canvas is the default.

Select « to close the Base Map popup.

Viewing the Legend

The legend informs you which railroad owns the displayed tracks. Select the legend icon ( ) to display the Legend popup (Exhibit 14).

Exhibit 14. Legend Popup

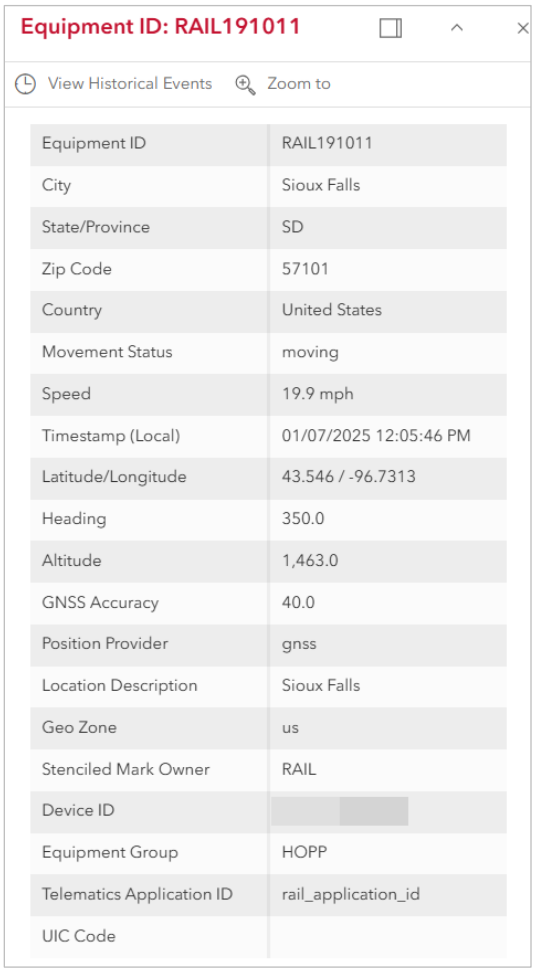


Select « to close the Legend popup.

Viewing Device Details

The Device Details popup displays detailed information about a selected telematics device. Select an individual telematics device icon ( ) on the map to display the Device Details popup (Exhibit 15).

Exhibit 15. Device Details Popup



Most of the Device Details available in STAR are from a data provider; however, **Stenciled Mark Owner** and **Equipment Group** are from Umler. The Device Details popup displays the following information:

- **Equipment ID** – An identifier for the rail equipment that is associated with the telematics device.
- **City** – The city where the telematics device is located.
- **State/Province** – The state (US or Mexico) or province (Canada) where the telematics device is located.
- **Zip Code** – The postal code where the telematics device is located.

- **Country** – The country where the telematics device is located.
- **Movement Status** – The movement status of the telematics device (Moving, Standing, Parking, or Unknown).
- **Speed** – The speed at which the telematics device is traveling.
- **Timestamp** – The time at which the telematics device reported status information based on UNIX epoch.
- **Latitude/Longitude** – The location of the telematics device in decimal degrees.
- **Heading** – The direction, in degrees, in which the telematics device is moving. 0 degrees represents true north, 90 degrees is east, 180 degrees is south, and 270 degrees is west.
- **Altitude** – The measurement, in meters, of the vertical distance of the telematics device above or below sea level.
- **GNSS Accuracy** – Estimated horizontal accuracy, radial, in meters.
- **Position Provider** – The method that is providing the position of the telematics device.
    - **GNSS** – Position was obtained with GNSS.
    - **Cellular** – Position was obtained using cellular networks.
    - **Custom** – Position was obtained in another way (e.g., a provider not yet supported, a combination of data from one or more providers, or additional processing from supported providers).
- **Location Description** – A descriptive location of the telematics device.
- **Geo Zone** – The virtual boundary or geographic area in which the telematics device is located.
- **Stenciled Mark Owner** – The owner of the rail equipment associated with the telematics device.
- **Device ID** – A unique identifier for the telematics device.
- **Equipment Group** – The type of rail equipment on which the telematics device is located.
- **Telematics Application ID** – A unique identifier for the telematics application.
- **UIC Code** – A two-digit country identifier.

Viewing Historical Events

While viewing the Device Details popup (see Exhibit 15), you can select **View Historical Events** to display the Historical Events popup, which shows a map with the history of events for the device over the previous 7 days (Exhibit 16).

Exhibit 16. Historical Events Popup

The default date range is 7 days, but you can modify the **From Date** and/or the **To Date** to view a range of historical events over the previous 30 days.

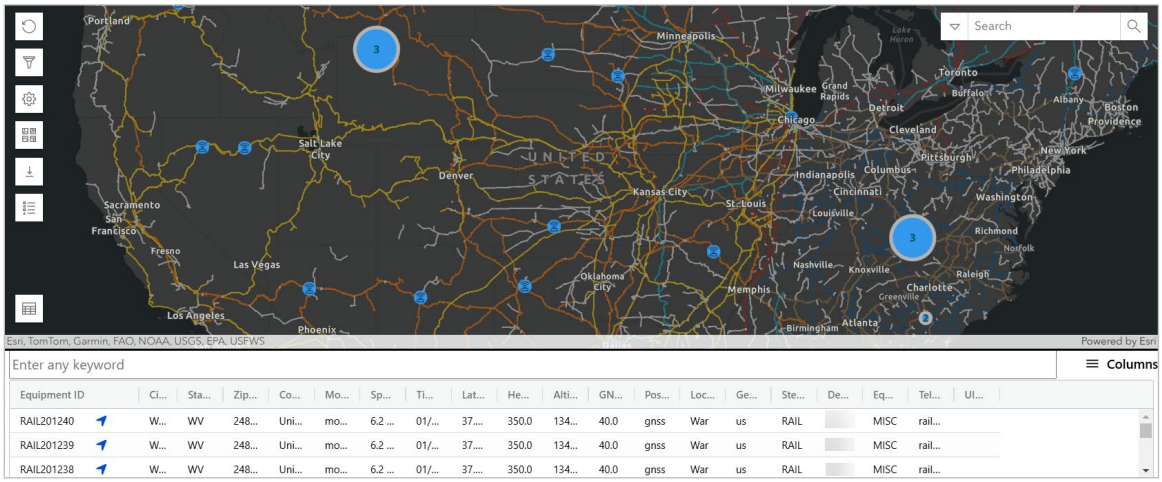
The historical events are represented by small blue circles, the end (or current) position is represented by a small green circle, and the blue line is a linear point-to-point line connecting sequential events. You can select any of these events to view detailed information about the event.

Select **Close** at the bottom right to return to the Device Map.

Using the Tabular View

Select the tabular view icon ( ) at the bottom left of the Device Map page to see the Tabular View (Exhibit 17).

Exhibit 17. Device Map Page Showing the Tabular View



The Tabular View lists the telematics devices in a table below the map and displays information about each. The information displayed is the same information that is displayed in the Device Details popup (see Viewing Device Details on page 13 for descriptions).

You can select the zoom to icon ( ) in the Tabular View to focus the map on a selected telematics device. You can also select the columns icon ( ) to choose which columns you want to display.

You can sort the Tabular View by any column by selecting the column heading. The direction of the sort is indicated by an up or down arrow in the column heading. Select the column heading again to change the sort order. You can filter the Tabular View by entering relevant text into the keyword **Search** field.

Select the tabular view icon again to close the Tabular View.