ATHENA TELEMATICS VEHICLE PLANNED SUBSTITUTIONS

Education Logistics, Inc.

Training Guide

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Athena Telematics
Vehicle Planned Substitutions
Training Guide

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Education Logistics, Inc.

3000 Palmer St.

Missoula, Montana 59808

(406) 728-0893

https://www.edulog.com/

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VEHICLE PLANNED SUBSTITUTIONS INTRODUCTION

The Athena Telematics Vehicle Planned Substitutions Training Guide will provide you with explanations of the basic tools within Athena Telematics Vehicle Planned Substitution module, walk you through steps in managing planned substitutions, as well as provide you with specific scenarios you may encounter as you begin to independently navigate the system.

There are several ways you can make substitutions. Substitutions can be done in System Management, on the tablet, and in Athena Telematics. This document will cover Vehicle Planned Substitutions in the Athena Telematics application.

For substitutions to work correctly, all routing should be in place in the Athena Routing and Planning application, which include finalized routes, vehicles, vehicle capacity, and vehicle-routes assignments.

Changes made to vehicle capacity and route load will only reflect overnight, unless you run a data sync, which can be done in Tools – Utilities – Telematics Utilities. You may want to create Planned Substitutions first, rather than Live Substitutions, unless you do a data sync.

PLANNED SUBSTITUTIONS

Planned Substitutions Overview

The planned assignments are intended for the near future, typically within the next 10 working days. Any assignment in this module will override the assignment in the module Vehicles Route Assignment in the specific time range.

Daily Rollover for Assignments is the crucial part of this module. It triggers early every morning and will remove which assignments are not valid.

Live – Hold – Plan

Live, Hold, and Plan are the names of three copies of the Athena routing data base. The routing data base (everything except for Students, Transportation Requests, and Trips) does not have effective dates attached to its data
records (mainly stops, paths, schools) but exists in three forms: Live, Hold, and Plan. Each routing data base is associated with the date of when the data are assumed to reflect the routes as they are actually driven on that day (this is called the Plan date of the data base). Live corresponds to the current date and is not allowed to be edited (except in case of extreme emergencies). Plan corresponds to data fully available for editing. Hold is basically the same as future Live and exists for the sole reason of providing enough time for the transportation office to deal with communication or operational actions caused by the route changes requested or required before going live.

The main justifications for the Hold stages are:
1. to allow the transportation office to have enough time to distribute the transportation information to stakeholders before going live with it. A consequence is that no requests can be made effective sooner than 3 days from the time they are received;
2. if the office is not able to finish all the changes needed in the future, the Hold days provide a buffer to finish the work: for example, if all the changes due 3 days later cannot be finished in

Plan during the current day's work, on the next day, the roll-over of Plan into Hold 2 can wait until work is completed, and then the roll-over can take place: the new Hold 2 is created and the new Plan started.

The example of a 2-day Hold may not be typical. Maybe a no-Hold setup will be common in small school systems as changes can be handled in one day's work, and the notification can be done via PP/email/SMS to parents, live display of route data via DP for drivers, WebApp access to any other stakeholders. With a no-Hold setup, there are only Live and Plan data co-existing in the system. Transportation requests can be processed to be live the next day. In Plan, the routing system will require a date before any functions involving trips can operate. By default, it will be the date of the Plan data (next day in a no-Hold setup).

Planned Substitutions Module

1. Log in to the system by entering "User Name," "Password" and click on the "Login" button.

2. Click on the "Telematics" module.

Welcome to Edulog's Athena suite of management tools for school transportation
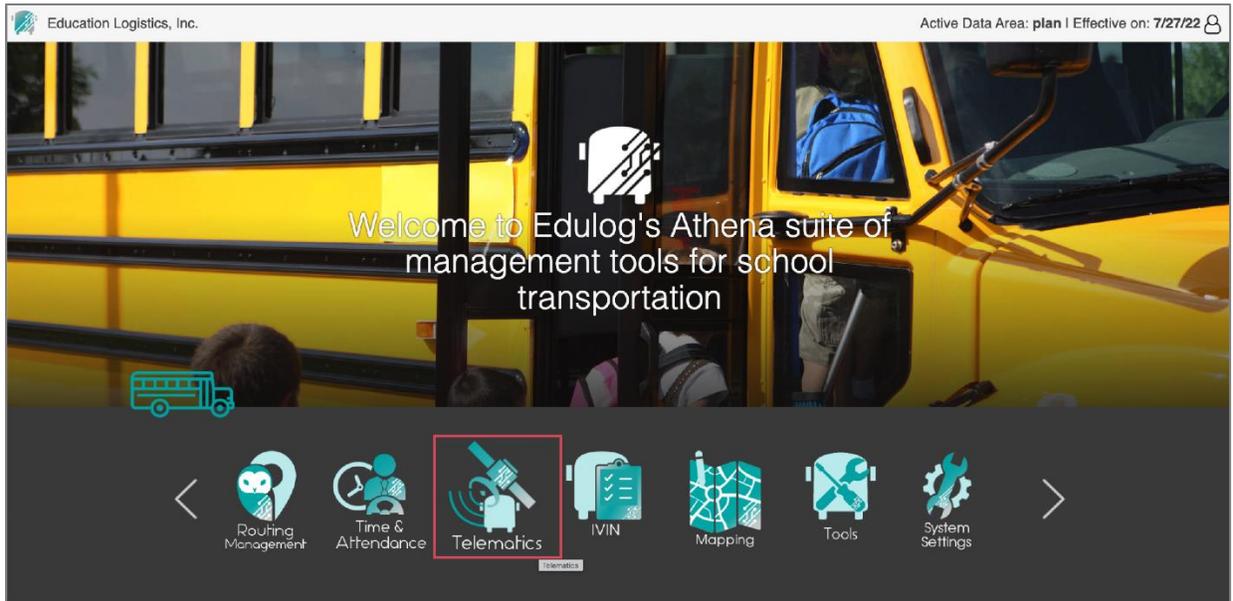
3. Select Planned Substitutions under Vehicle Management
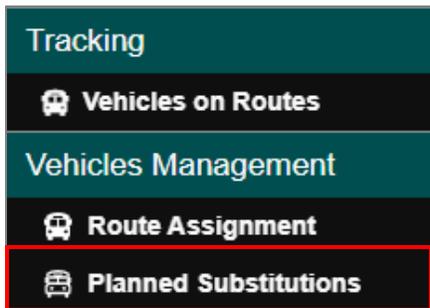
4. Routes in the Data Panel
   a. Routes must have valid Frequency (if they have at least one working day) to be loaded
   b. Display the routes and substitutions on panel with columns:
      • Route ID, Hold 1, Hold 2, Hold 3, Plan, Until (leave it blank), Depot, Special Ed
      • "Hold" and "Plan" day will start at the next tenant date (display as the same Vehicle Planned Substitutions)
      • Number of Hold Days can be configured (number of hold days: 3, 4, 5)
      • Default, there are 3 Hold Days

6. Display Window Dates Assignment
    a. Window days are all the future working days that user wants to observe start from the following date.
    b. Window days display the future Assignments.
    c. Window days include Hold days and Plan day.
    d. The Header of window days further than plan day only consists of Date (no Hold Number or Plan) (better words)
    e. Number of Window Days can be configured: Maximum is 10.

7. Default sort:
    a. Prioritized on **Hold 1** that is missing assignment
    b. If routes also have the **Hold 1** missing assignment, check the same rule for **Hold 2**
    c. Repeatedly sort for next window dates with the rules above

Display Route Details
1. Click on a Route to see details
    a. Route Info
        • Route ID (Code), Frequency, Core Days, Extra Days(leave Blank)
            • Core Days: Number of Unassign Days from the left first date to last consecutive unassign Days, count to the last Window Date (do not count dates that route has no duty)

b. Cover:
- Selecting Date (add Hold, Plan or leave blank), Depot, Load, Start Time, End Time,

c. Assignment:
- If user clicks on one of the window dates
- Display Info: Vehicle (Vehicle Code), Capacity, Depot

Load Vehicles with Planned Substitutions

1. Load all Vehicle with Columns:
   a. Vehicle (display Vehicle code)
   b. Hold, Plan, Window Date
   c. Until (Blank)
   d. Capacity, Depot
2. Display the Assignment of those Vehicles
   a. One record is one Assignment
   b. If the Vehicle is serving more than one Route, there should be more than 1 row to display the all the assignments of that specific vehicle.

3. Display color for Assignment.

Search for Evaluated Vehicles

1. Select one Route record.

2. Then click **system-assisted** button to look for suitable Vehicles.
   a. Only Route missing date assignment need to be assigned.

3. Evaluated Vehicles will appear in the lower right of the workspace panel. Data includes:
   a. Vehicle, Core Days, Extra Days (leave it blank), Last Trip Date
   b. Core Days: Number of Unassign Days from the left first date to last consecutive unassign Days, count to the last Window Date (do not count dates that route has no duty) that Evaluated Vehicle Could assign
   c. Default Sort by
      • Vehicle Core Days Availability
      • Last Trip Date (Priority on Vehicle had the last trip date further than current date)

4. Vehicles Evaluated should have satisfied criteria:
   a. Have enough availability time for that route cover

- Meet the From Time, To Time, Frequency
- Vehicle Availability Time = 24h - assignments time - outofServiceTime
- If after the projected end date, the vehicle still does not have actual end time, It is considered as out of service for the next all window dates.
b. The Vehicle Capacity must equal or greater than the Route Cover Load
c. Vehicle Depot must match the Route Cover start Depot
  - They must be the same if they are not null
d. At least, Vehicle could be assigned to the first route core date.

5. Select the Vehicle.

6. Confirm the Vehicle – select Assign.

7. Vehicle will be an assigned substitution.

Manually assign Vehicle to Route

1. Click on a route.

2. Enter the Vehicle (Vehicle ID) to point the Vehicle needed to be assigned.

   a. Select from the list or typing the full ID.

3. Confirm by selecting Assign.

4. The Vehicle is assigned.

5. For missing assignments, click in the missing box.

6. Select from the list or typing the full ID.

7. Confirm by selecting Assign.

8. The Vehicle is assigned.

Daily Rollover for Assignments

1. At 23:00 PM every day, rollover triggers to recalculate the Planned
    1. Any Invalid **assignment** or **substitution** will be removed
2. Valid assignment or substitution
    1. Have enough availability time for that route cover
        a. Meet the From Time, To Time, Frequency
        b. Vehicle Availability Time = 24h - assignments time - outofServiceTime
        c. If after the projected end date, the vehicle still does not have actual end time, It is considered as out of service for the next all window dates.
    2. The Vehicle Capacity must equal or greater than the Route Cover Load
    3. Vehicle Depot must match the Route Cover start Depot

        a. They must be the same if they are not null
3. When a Vehicle get Out of Service, the system will check the Valid of its assignment and substitution on the table and recalculate related Assignment Route instantly
4. New latest Assignment will be affected after rollover triggering

Support real-time update

1. Multiple users can view real-time update made by others