avail TECHNOLOGIES, INC.

DATAPOINT OPERATIONS USER GUIDE

Describes how to use DataPoint Operations
September, 2021

Version 7.4.11/2021

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About this Document - Data Point Operations User Guide

This document explains how to use the Avail web-based application called DataPoint. It discusses the purpose of DataPoint, how it functions, initial setup, features and functionality, and how to use DataPoint to update information stored in the property's database.

DataPoint is an application geared toward administrators of information about the property (e.g. route information, service level definitions) as well as those who need to access reports based on recorded data.

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Revision History

Revision Number	Date	Comment
1.0	February 24, 2017	Initial Release
1.1	Aug 7, 2018	Minor update
1.2	September 17, 2018	Major changes for release 6.5
1.3	January, 2019	Reviewed for myAvail 6.5.1
1.4	April, 2019	Reviewed for myAvail 7.0 (No Changes Needed)
1.5	October, 2020	Updated Trip Sample Review. Minor tweaks elsewhere.
1.6	June, 2021	Updated 1.2. Accessing DataPoint.
1.7	September, 2021	Updated images in 3.1 and 3.2. Vehicle Information is in ETMS now.

Table of Contents

1. DataPoint Overview

1.1. What is DataPoint?

DataPoint is a real-time On-Line Analytical Processing (OLAP) software package that puts your existing farebox data and Avail Technologies APC data to work for you. This product is a complete fare collection and ridership reporting and analysis tool. It saves time and effort by eliminating the need to shuffle through stacks of paper reports or cumbersome software, a process that could take hours, days, or even weeks.

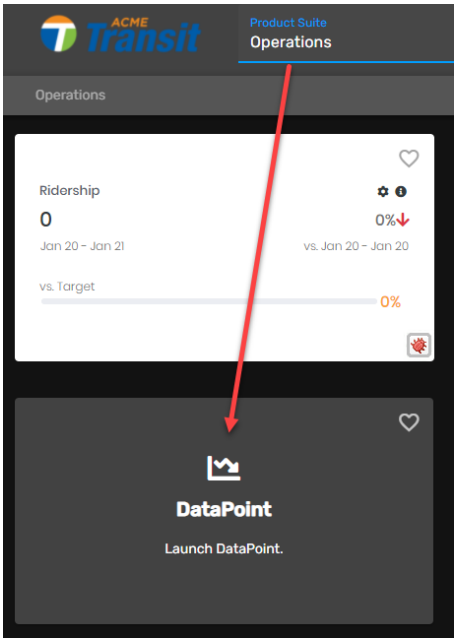
DataPoint provides a simple step-by-step interface that allows you to gather data quickly. For example, you can use DataPoint to configure your system, enter and adjust your schedule data, make adjustments for NTD Reporting, and import farebox data.

DataPoint produces easy-to-understand, graphical analysis reports. A powerful drill-down mechanism allows you to go deeper into the data to find the specific information you require. You can view data in a variety of ways and identify trends to answer questions about revenue and ridership. The graphical reports allow you to harness the power of your data to streamline and adjust your service and, ultimately, reduce operational costs.

NOTE: In addition to our standard DataPoint feature, Avail Technologies also offers optional new features of a data warehouse capability that you access using the Business Intelligence tool. If you want to know more about these features, please contact your account representative or Avail Support.

1.2. Accessing DataPoint

Users of myAvail v. 7.4.5 and higher can access DataPoint through the ETMS platform/Operations/DataPoint card:

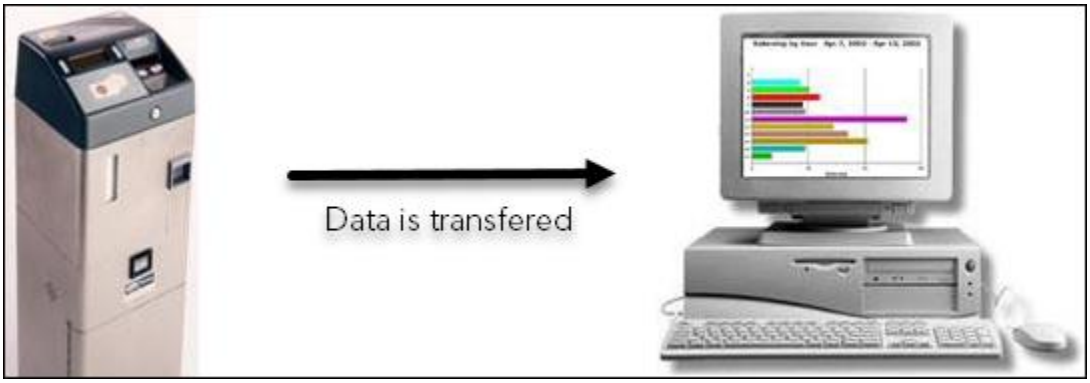


1.3. DataPoint Daily Usage

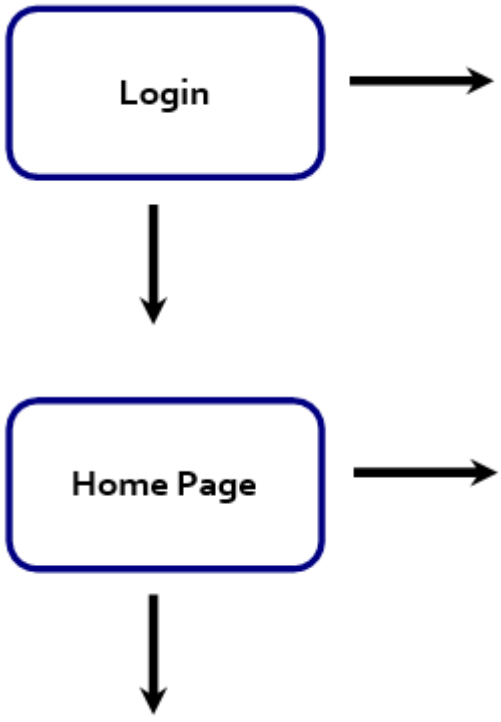
DataPoint and myAvail are integral parts of the daily data collection process.

- Throughout the day, all vehicles collect farebox data.
- At the end of the line, all fare data are downloaded to the central farebox server.
- DataPoint imports the data from the farebox server into its database.
- myAvail performs exception testing to identify conflicting data.
- After the exceptions testing, the data are included in the analysis and summary reports.

Exception testing in myAvail compares imported data to DataPoint's setup information. This testing highlights all conflicting information. A trained user should perform exception testing daily.



1.4. DataPoint Roadmap



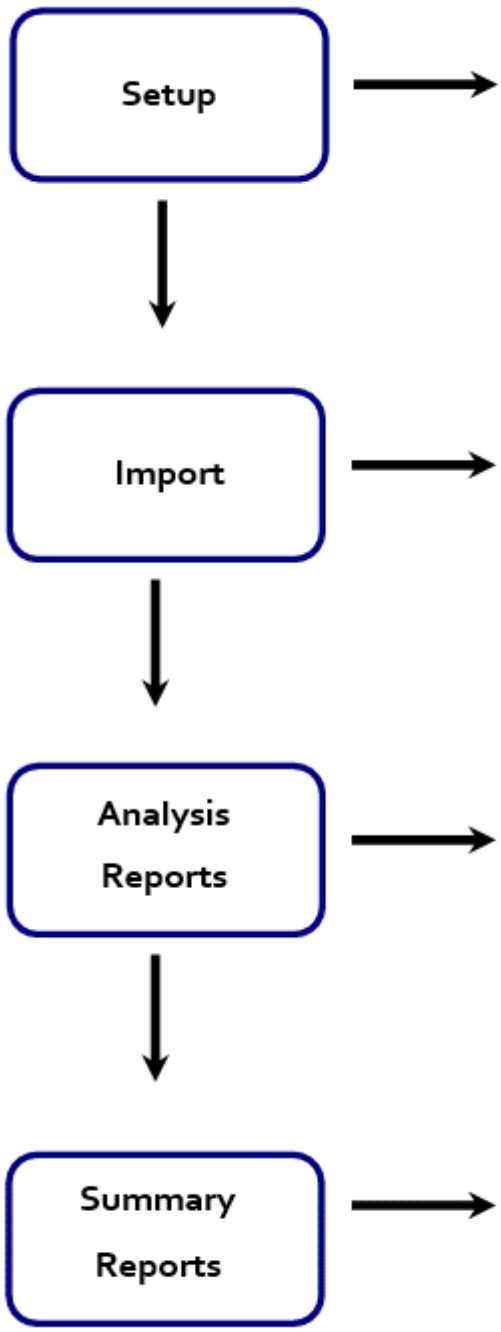
Login: Each user logs in using a unique password. Different levels of access can be set for each user based on their job requirements.
Note: User access is set up in myAvail.

Benefit: DataPoint provides greater security of valuable information by using password protection.

Home Page: Allows users to easily view the system's status. It displays the following:

- Number of users logged in
- Earliest and latest dates in the holding tank
- Earliest and latest dates available for reporting

Benefit: Provides administrators a system overview at a glance.



Setup: Allows you to profile your operations, enter detailed information about routes, blocks, fare sets, etc.

Benefit: DataPoint allows the user to customize the system to reflect the way each property operates.

Import: DataPoint's unique design allows you to:

- Pull farebox data from network servers
- Import CSV files
- Manually enter ridership and revenue data

Benefit: Makes use of existing farebox data.

Analysis Reports: Answers unique questions about your operation, such as:

- Ridership by Route/Run/Trip
- Revenue by Route/Run/Trip
- Type of riders by Route/Run/Trip
- Etc.

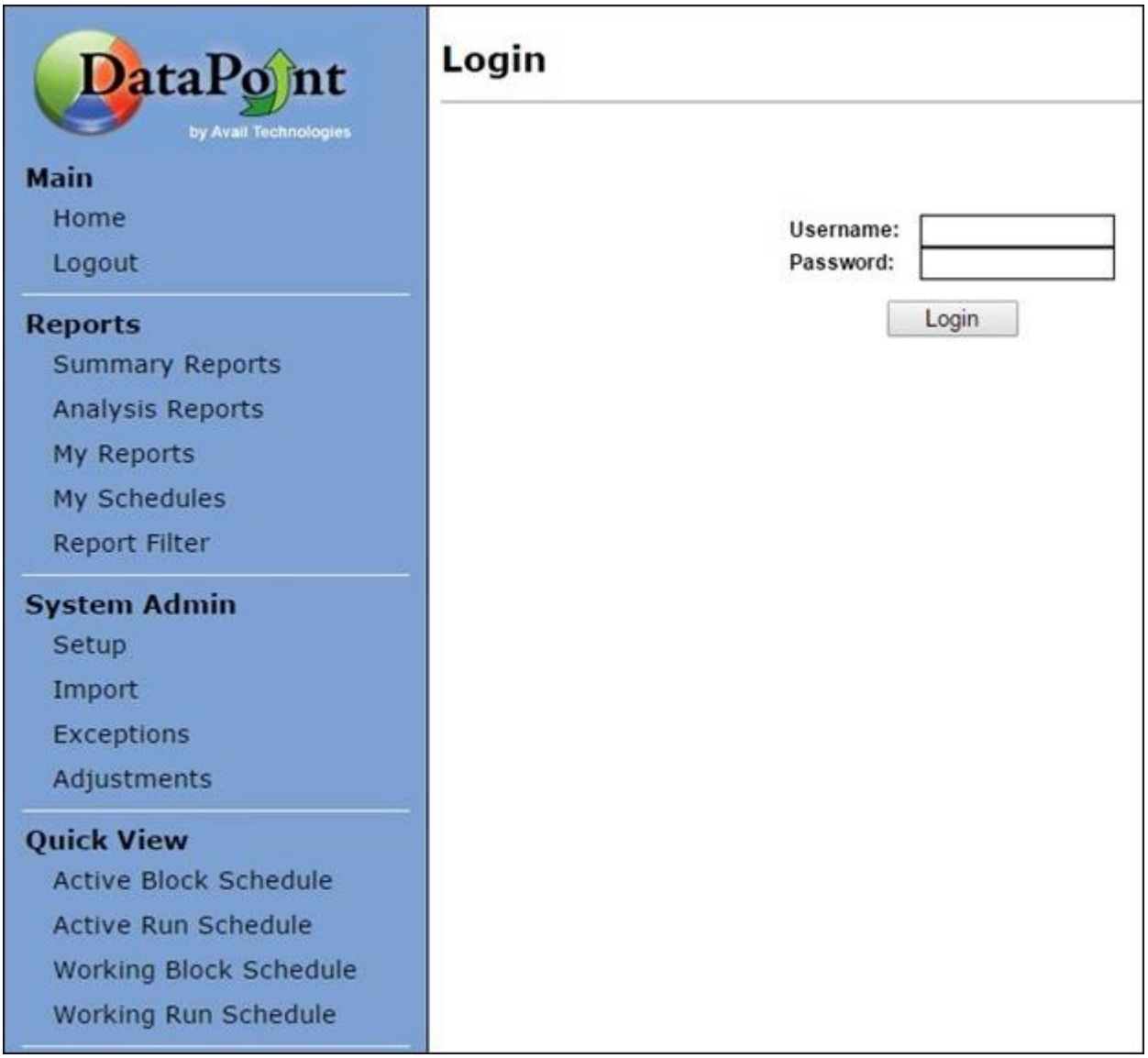
Benefits: No need to search spreadsheets to find answers - just point and click.

Summary Reports: Preformatted reports run for periods of time. Typically, these are the reports needed by your property on a regular basis.

Benefits: Use your data to make decisions and cut costs.

2. GETTING STARTED

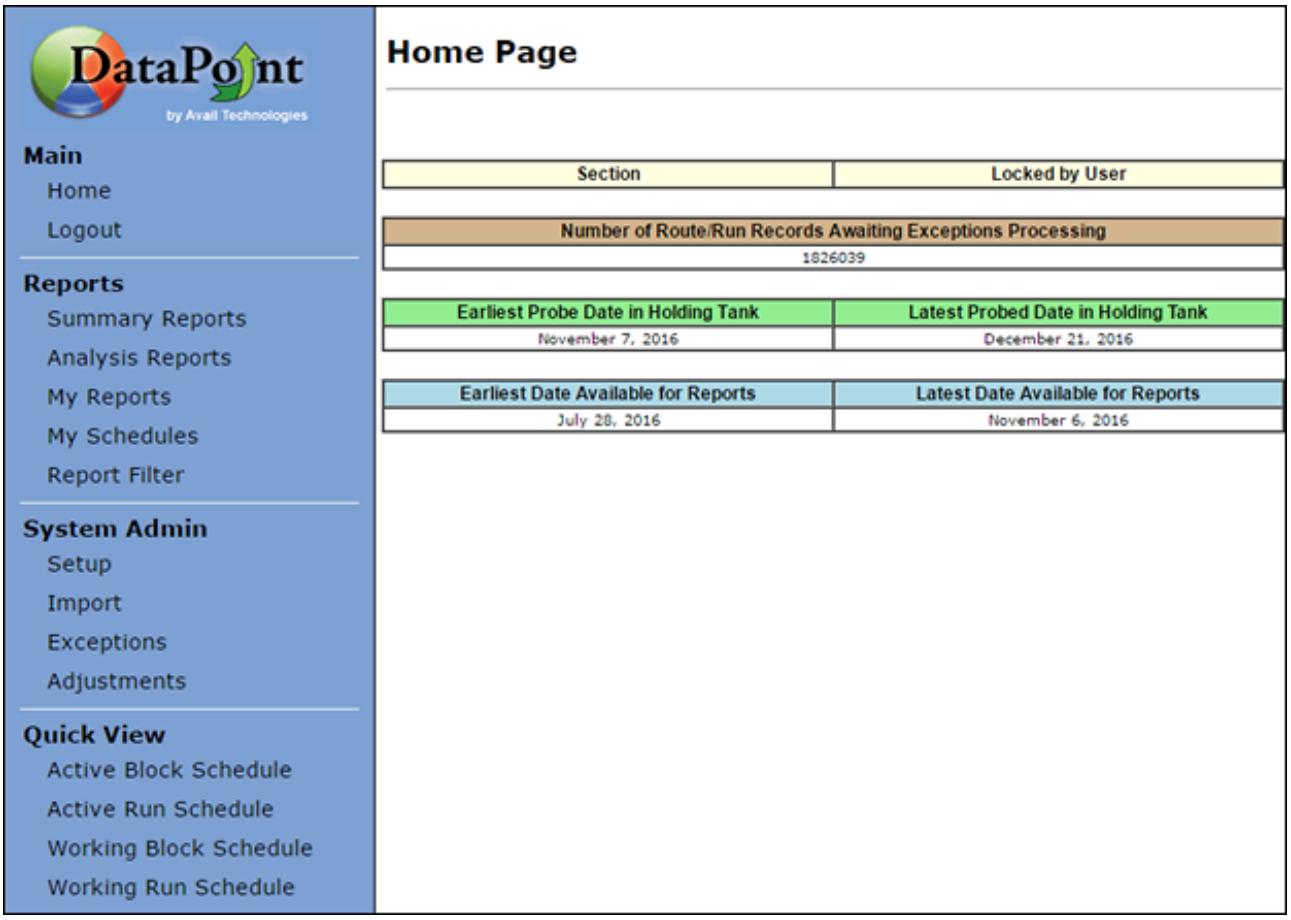
2.1. LOGGING ON



DataPoint users first encounter the login screen. Each user requires a username and password, which are the same as those used in myAvail. The myAvail roles assigned to the user either enable or disable access to the options in the left navigation menu that is shown above.

Access control helps ensure minimal data errors because only specified users can make changes to your valuable data.

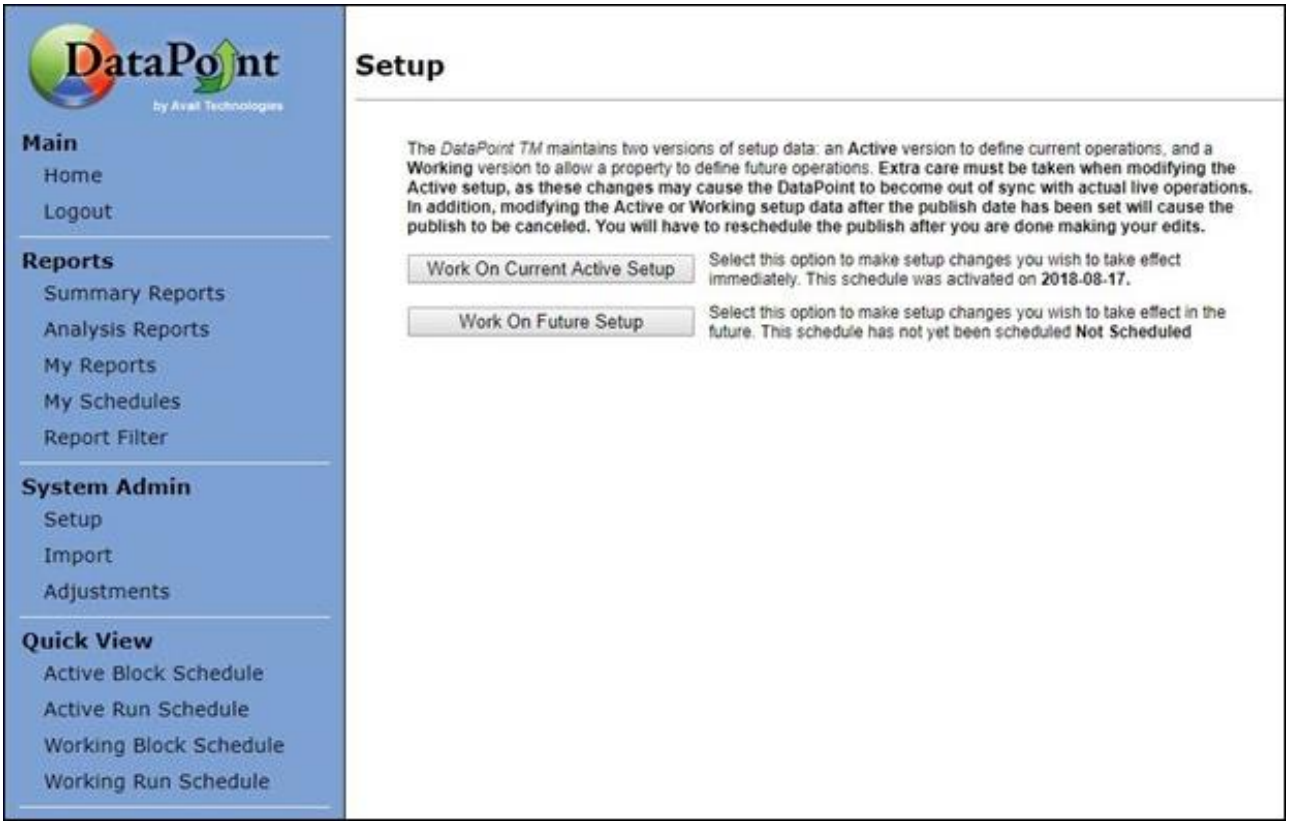
2.2. HOME PAGE



After logging in, the user sees the Home Page that gives an overview of the system's status. Here, users can learn a variety of things, such as which areas are currently in use, earliest to latest probe date in the holding tank, and earliest and latest dates that are available for reporting. This information allows administrators to track which task has been completed. Keeping track of dates that are available for reporting becomes important when reviewing reports.

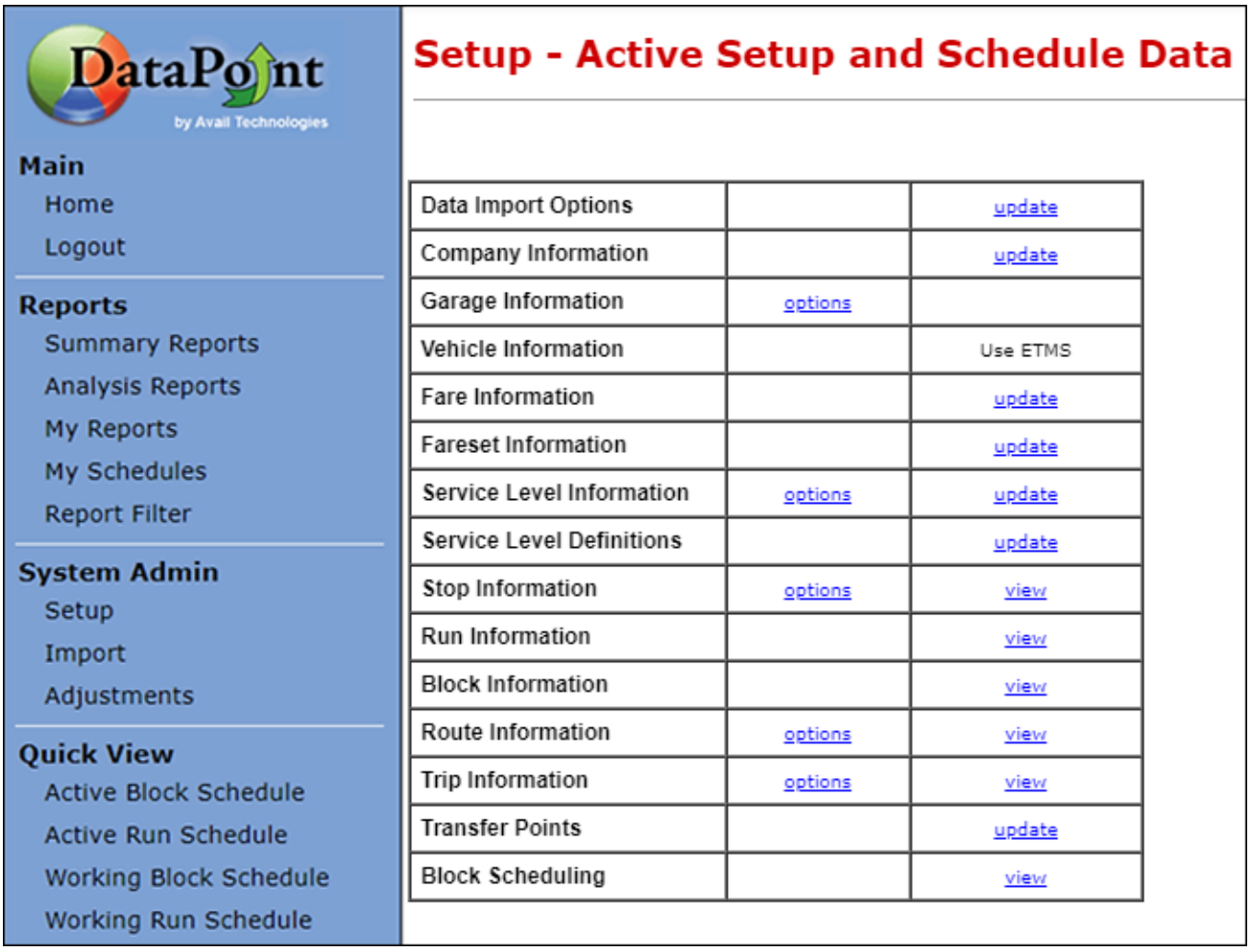
3. SETUP

The various setup sections are used to configure the myAvail system. Most options are configured during the initial training and installation of myAvail. This guide describes how to run through setup, so you can adjust the configuration. DataPoint Setup provides access to view schedule data, such as blocks, runs, trips, patterns and routes. However, edits to schedule data must be done through your scheduling package.

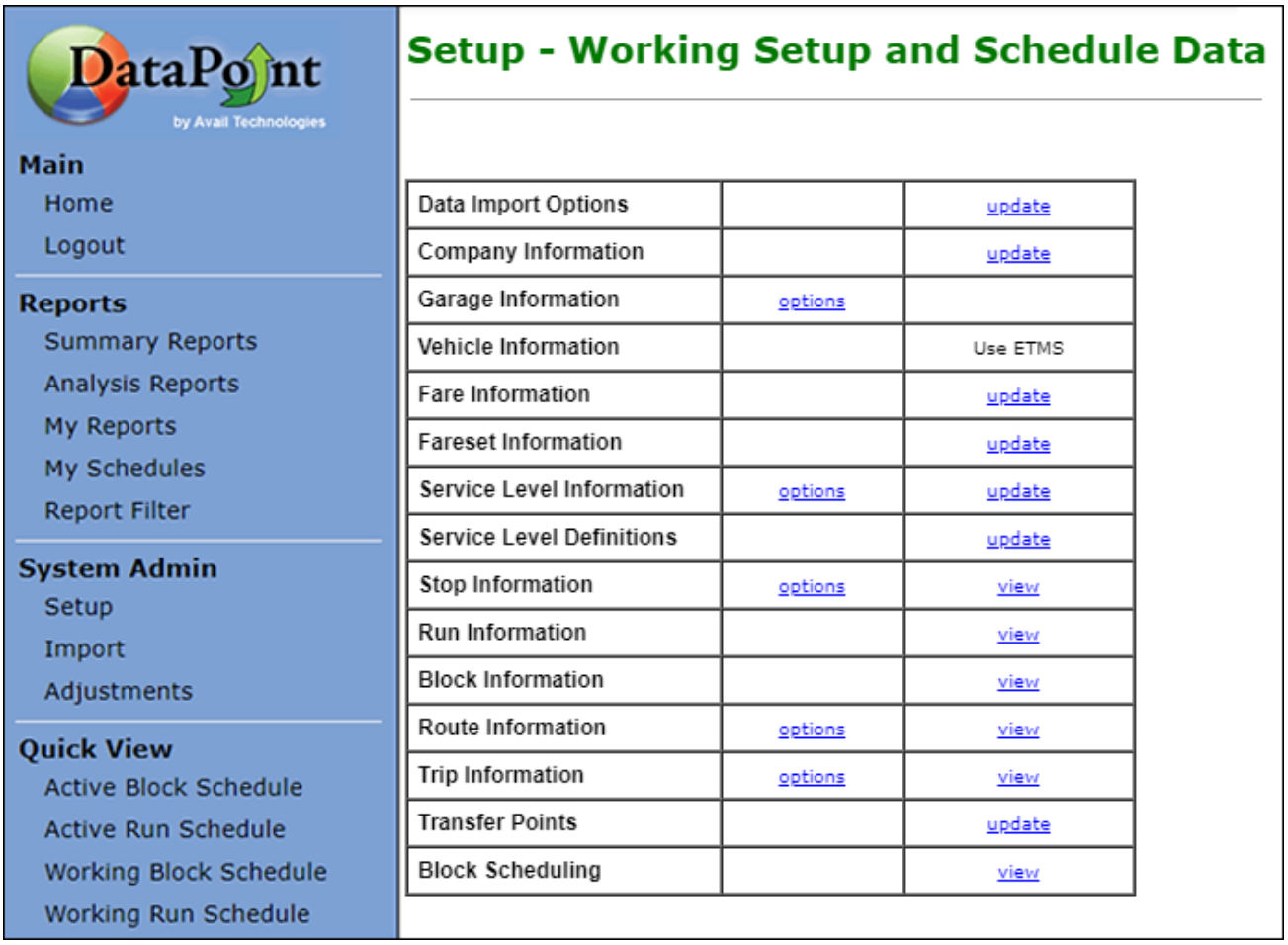


In setup, you must choose between working on the current setup and working on a future setup. The screen describes this choice.

3.1. SETUP - ACTIVE SETUP AND SCHEDULE DATA



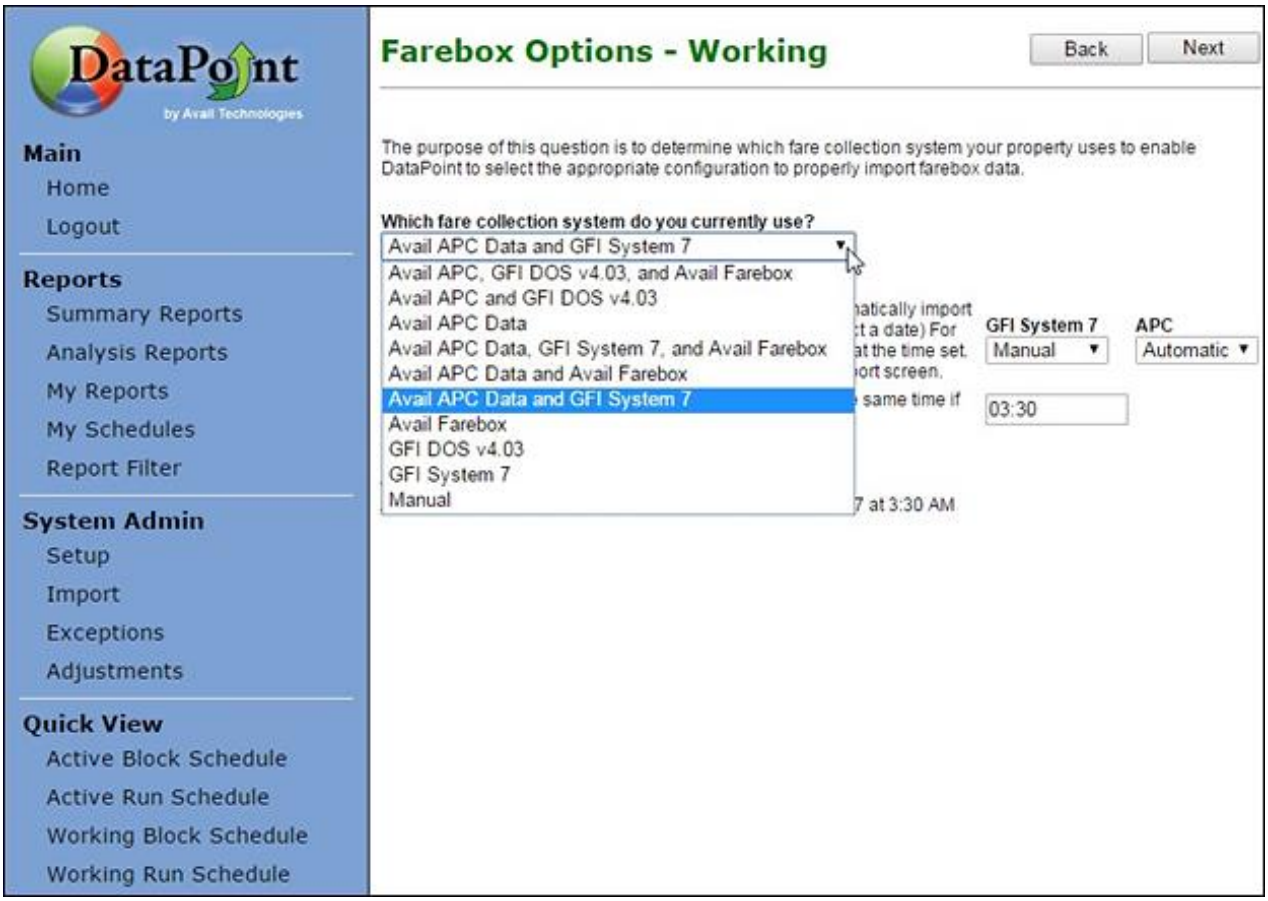
3.2. SETUP - WORKING SETUP AND SCHEDULE DATA



After selecting **Work On Current Active Setup** or **Work On Future Setup**, you'll see one of the two preceding screens. These are the screens where you can find links to all of the other setup tools. If you want to change between the current setup and the future setup, click **Setup** in the navigation menu on the left.

NOTE: There are four sections, where changes made to the data take effect immediately even if the changes are entered under the Future Setup screen. These sections include Data Import Options, Company Information, Garage Information and Vehicle Information.

3.3. SETUP: DATA IMPORT OPTIONS

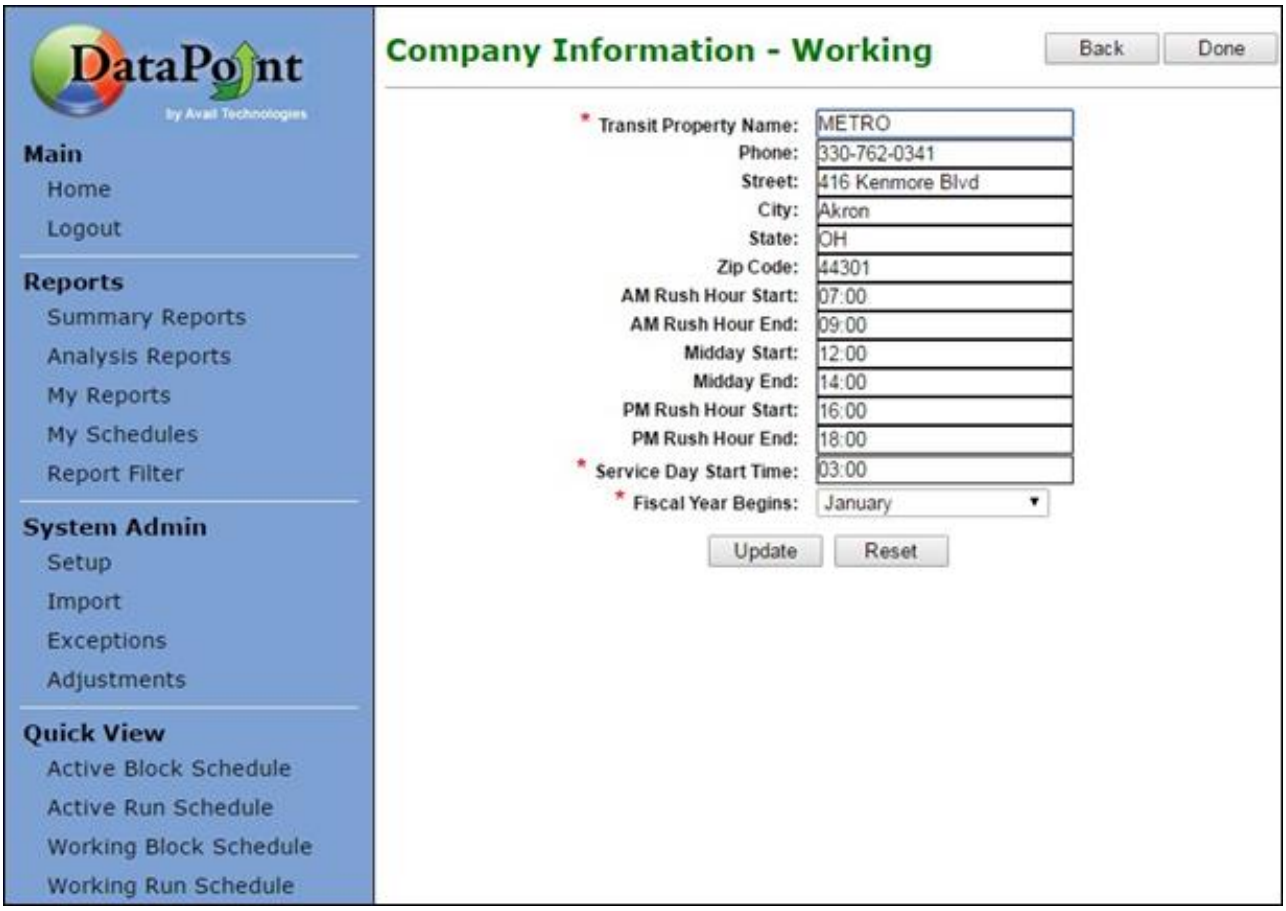


Use the Farebox Options screen to specify the fare collection system that your property uses. Currently, DataPoint supports Avail APC, Avail Farebox, GFI DOS v4.03, GFI System 7, Avail APC, and Manual entry. As the need arises, we will add additional fare collection systems.

To specify the fare collection system, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Data Import Options** and click **Update** in the right-hand column.
3. In the **Farebox Options** screen, select the correct options in the drop-downs and click Next.

3.4. SETUP: COMPANY INFORMATION



Use the Company Information screen to enter information about your property and how it operates. To add company information, do the following:

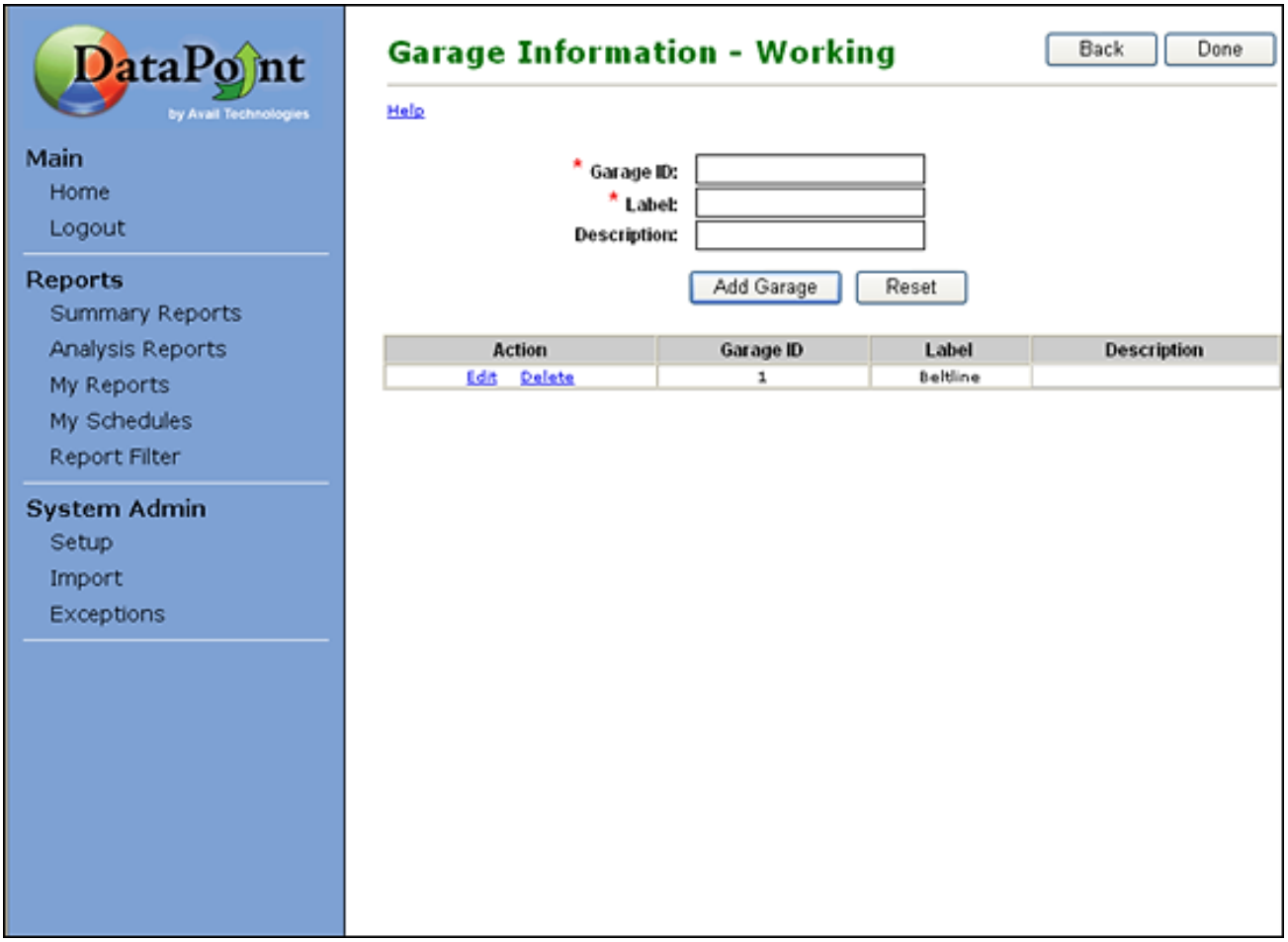
1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Company Information** and click **Update** in the right-hand column.
3. Red asterisks indicate required fields. The other fields are optional. However, the more information you enter, the better DataPoint understands how your property operates on a daily basis.
4. Click **Update** to save your changes. Click **Reset** to set each field's value back to the original values that were displayed before any changes were made. Click **Done** to proceed. Click **Back** to return to the previous page without saving any changes.

3.5. SETUP: GARAGE INFORMATION

Use the Garage Information screen if your property operates out of more than one garage and you want to be able to report based on garage. To access this screen, you must first indicate that you want to analyze and report ridership data by garage.

To enable reporting by garage, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Garage Information** and click **Options** in the center column.
3. In **Do you wish to analyze and report on ridership data by Garage?** choose *Yes* and click **Next**.

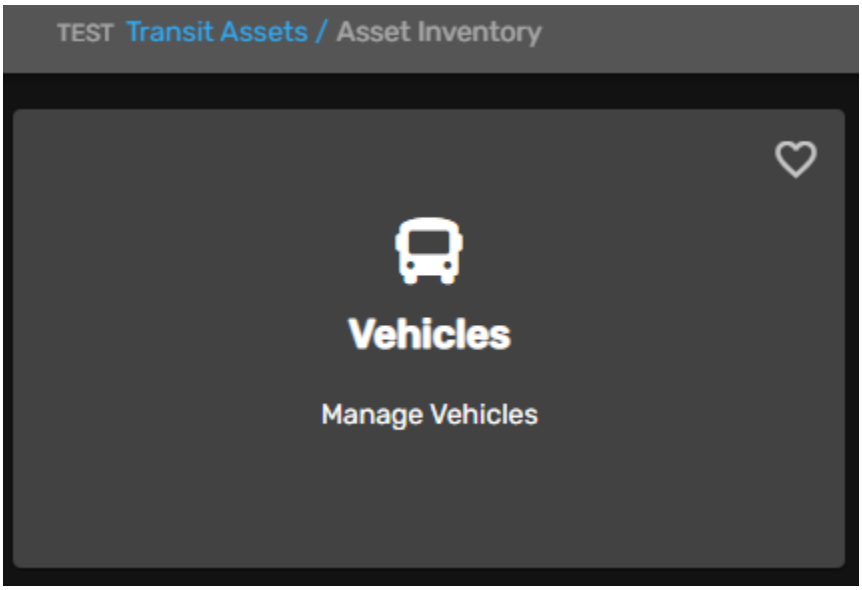


To add a new garage, do the following:

1. You must enter a **Garage ID**, which must match the Garage ID entered into the farebox.
2. You must enter a **Label** (reports display this name).
3. Optionally, enter a description of the garage.
4. After you have entered all the information, click **Add Garage** and the garage is added to the table. Add all the required garages and click **Done**. Click **Back** to return to the previous page without saving any changes.

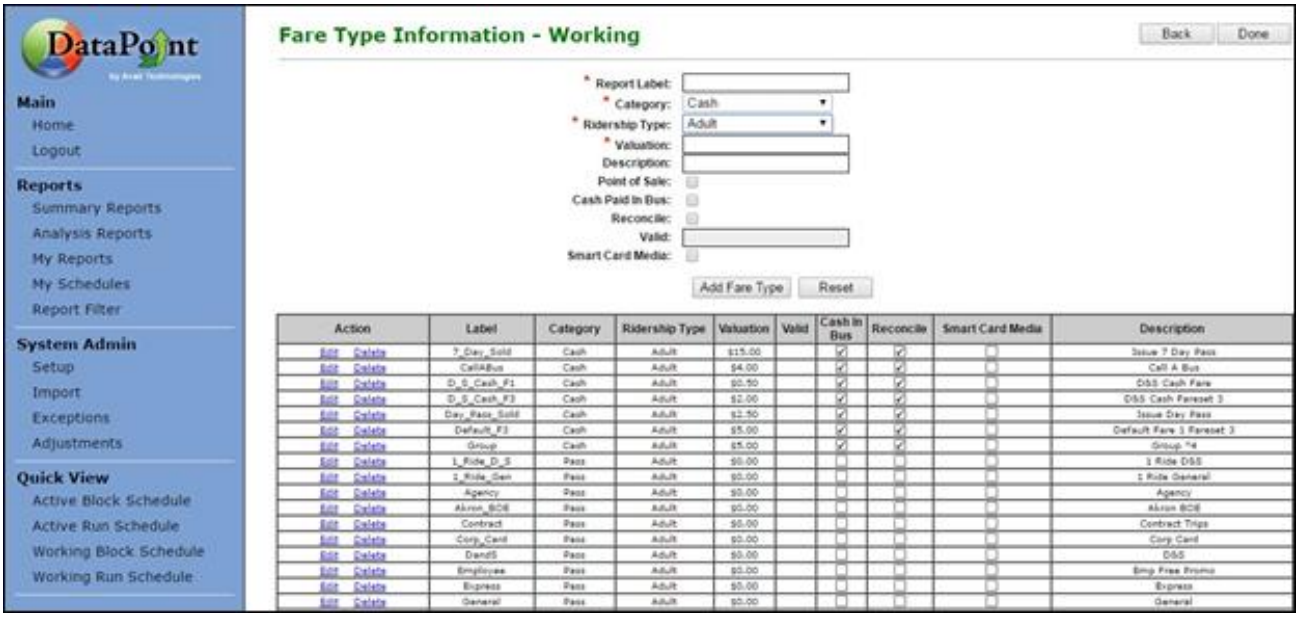
3.6. SETUP: VEHICLE INFORMATION

Vehicle Information is now accessible from the ETMS/Transit Assets/Asset Inventory/Vehicles card.



Please see more information in the *myAvail User Guide.*

3.7. SETUP: FARE INFORMATION



Use the Fare Type Information screen to create the types of fares and define their values. To create a new fare, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Fare Information** and click **Update** in the right-hand

column.

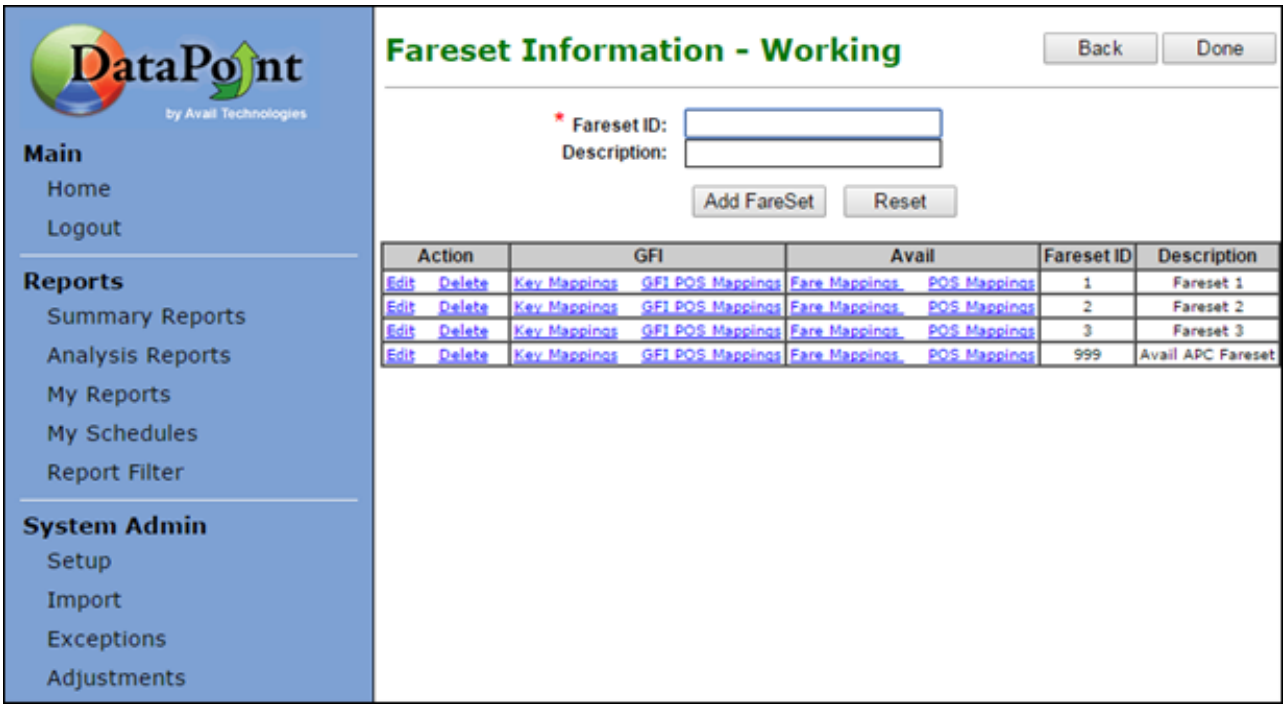
3. Enter the information about the new type of fare. Red asterisks indicate required fields. The other fields are optional.
4. Click **Add Fare Type** and the new fare type is added to the table. Add all new fare types and click **Done**.

Most properties have **Ridership Types** like Senior Citizens, Monthly Passes, and Transfers that they want to record. However, if you want to record a count of items that are transported on the vehicle, use the *Non-Ridership* option under **Category**. For example, a property can enter *Bikes* in **Report Label** and set **Category** to *Non-Ridership*. Please contact Avail Support if help is needed to add Ridership Types and/or Fare Categories.

To record fares that are sold on the vehicle at the transit center, or elsewhere, check the box for **Point of Sale**. For example, a 3-Day pass can be sold on the vehicle to generate revenue. To do this, enter *3-Day pass* in **Record Label**, specify *Pass* in **Category**, and check the box for **Point of Sale**.

Below is an example table of fares. Green denotes a 'Non-Ridership' fare. Blue denotes a 'Point of sale' fare. A fare with no color (white background) is a regular Ridership fare.

3.8. SETUP: FARESET INFORMATION



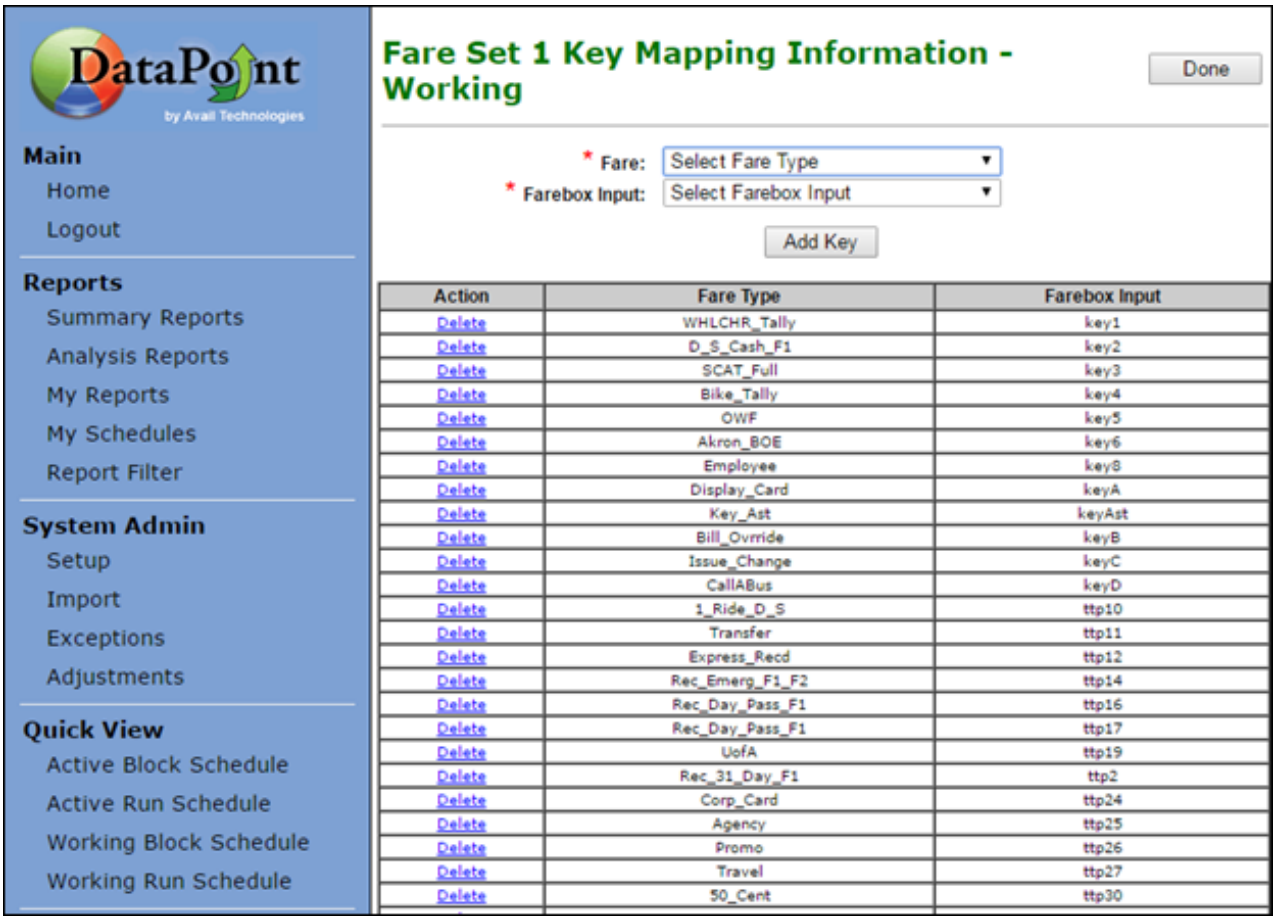
Use the Fareset Information screen to create new fare sets. A Fare set is a set of fare types (e.g., student, senior citizen, etc.) that have been assigned to keys on the farebox and to a monetary value. Many properties have more than one fare set in order to have enough keys for all of their different fare types or because one fare type can represent different values on different routes.

To create a new fare set, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Fareset Information** and click **Update** in the right-hand column.
3. Enter the information about the fare set. **Fareset ID** is required while **Description** is optional. The description field is often used to better characterize the fare set than **Fareset ID alone**.
4. Click **Add FareSet** and the new fare set is added to the table. Add all new fare sets.
5. After you add a new fare set, you must click **Key Mappings** in the **GFI column** for that fare set to map fare types to farebox keys. The guide covers the Key Mapping Information screen in the next section.

NOTE: When adding a fare set IDs, you can use only the numbers 1 through 7. Numbers over 7 show up as headway.

3.9. SETUP: FARESET INFORMATION CONTINUED - KEY MAPPING

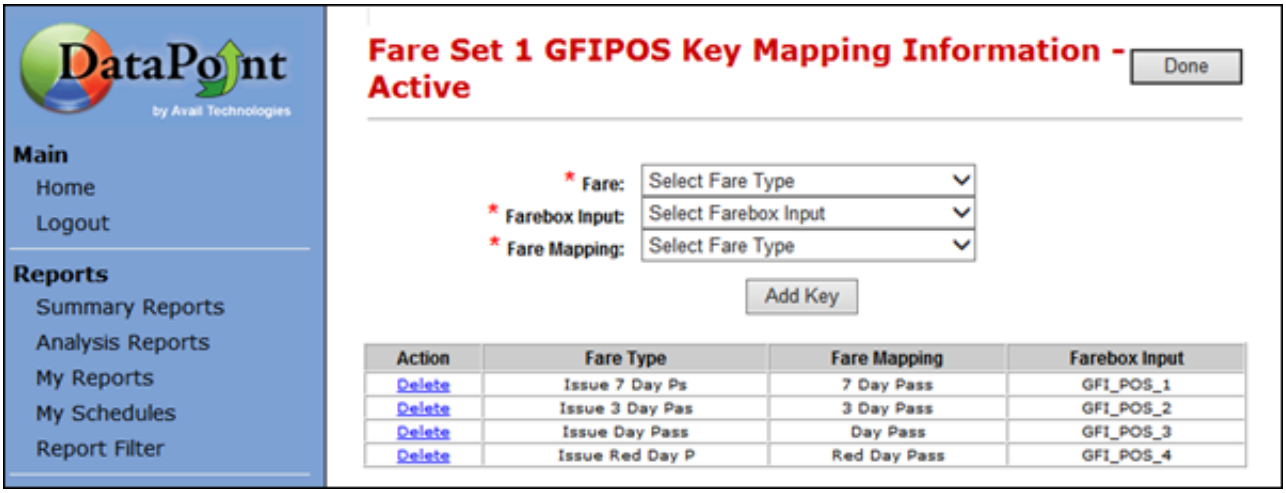


To map non-point of sales fare types to farebox keys, do the following:

1. In **Fare**, choose the type of fare you want to map. This drop-down displays all of the non-point of sale fare types that you created earlier.
2. In **Farebox Input**, choose the keys that you want to assign to the fare. This drop-down displays all of the keys on your GFI farebox that the operator can press.
3. Click **Add Key** and the new key mapping is added to the table. Add all the new key mappings that are required for the fare set and click **Done**.

If you don't want operators to press a key for a regular rider who pays the full fare, use *auto_fare*. In **Fare**, choose the fare type that corresponds to a regular fare. Under **Farebox Input**, select *auto_fare*, and click **Add Key**. After the money enters the farebox, it is automatically counted as a regular rider and full fare within the DataPoint database.

After you are done with the non-point-of-sale key mappings, you need to assign the point-of-sale key mappings. To do this, click **GFI POS mappings** in the Fareset Information screen.



Use the GFIPOS Key Mapping Information screen to map point-of-sale occurrences to ridership and non-ridership fares in order to maintain accurate valuation calculations.

To map-point of sales fare types to farebox keys, do the following:

1. In **Fare**, choose the point-of-sale fare you want to map. This drop-down displays all of the point-of-sale fare types that you created earlier.
2. In **Farebox Input**, choose the keys that you want to assign to the fare. If you choose a GFI farebox input, the input represents a fare that can be sold on a vehicle. However, if you choose a 'GFI_POS' farebox_input, the input represents a fare that is sold in places other than a vehicle (e.g. transit center, library, etc.).
3. In **Fare Mapping**, choose a valid ridership fare to map to (e.g. fare 'Issue Day Pass' maps to the ridership fare 'Day Pass').
4. Click **Add Key** and the new key mapping is added to the table. Add all of the new point-of-sale key mappings that are required for the fare set and click **Done**.

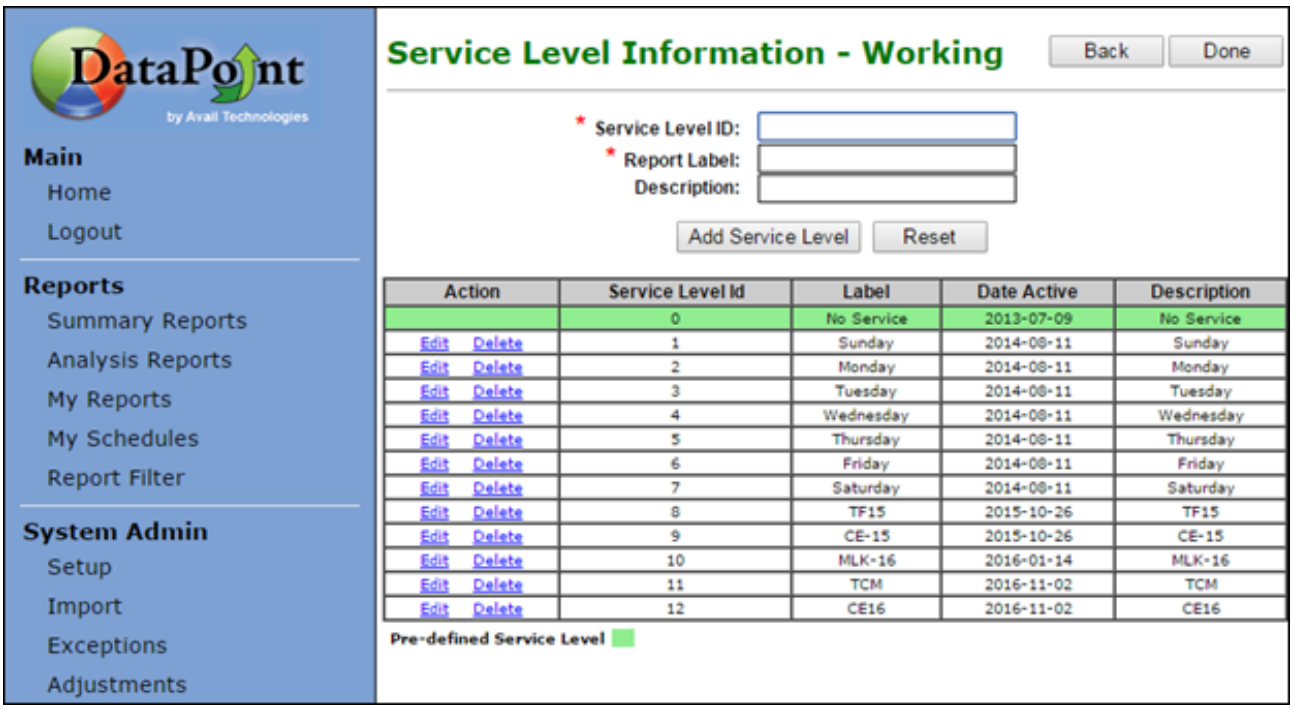
3.10. SETUP: SERVICE LEVEL INFORMATION

Use the Service Level Information screen if your property has more than one service level and you want to be able to report based on service level. Service levels are runs that occur

at a particular time of the week or year. For example, a run can fall under either the weekday or weekend service levels, which are shown below.

To access this screen, you must first indicate that you want to analyze and report ridership data by service level. To enable reporting by service, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Service Level Information** and click **Options** in the center column. If the report on ridership data by Service Level question has already been answered, click **Update** and proceed to step 4.
3. In **Do you wish to analyze and report on ridership data by Service Level?** choose *Yes* and click **Next**.



To create a new service level, do the following:

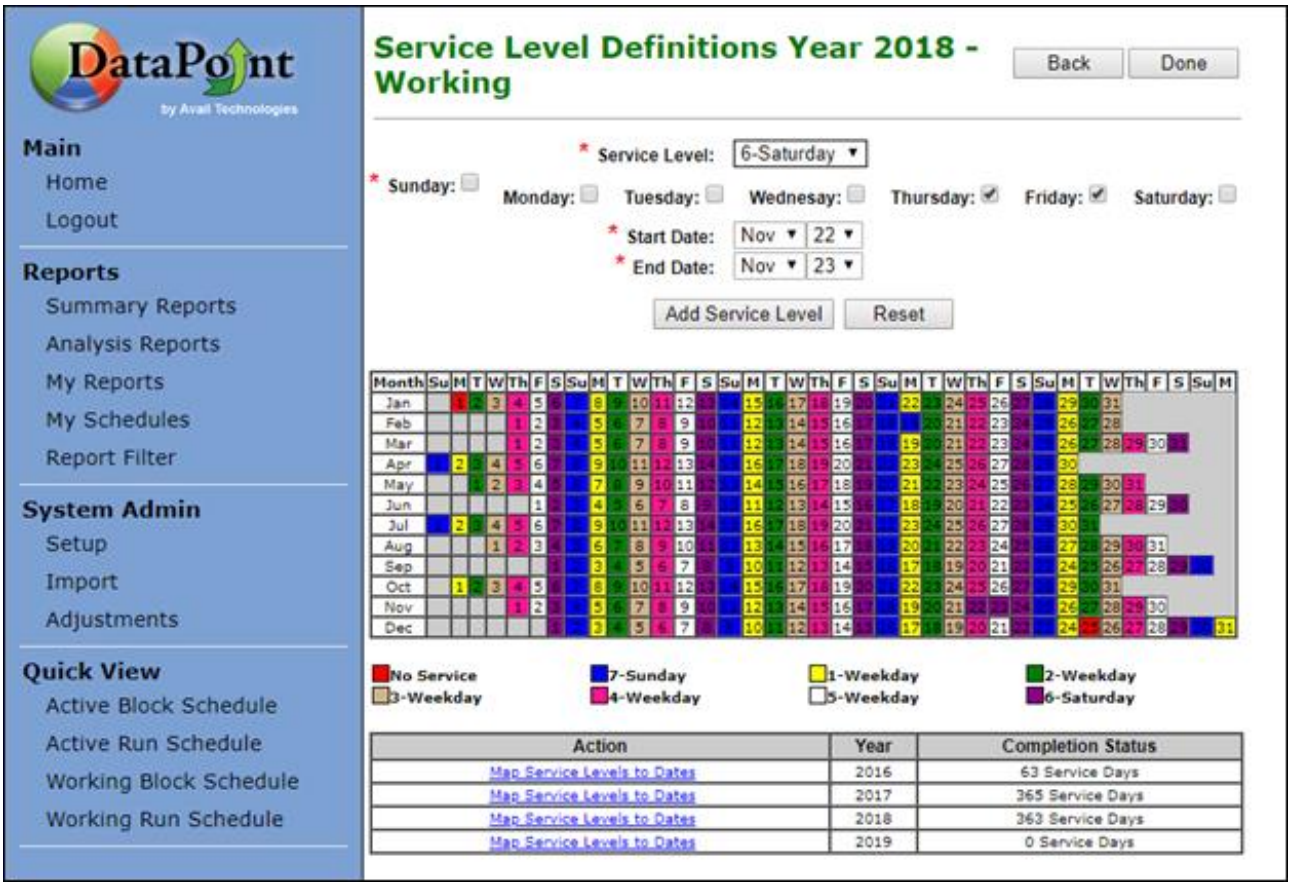
1. You must enter a **Service Level** and a **Report Label** (reports display this name). Optionally, enter a description of the service level.
2. After you have entered all the information, click **Add Service Level** and it is added to the table. Add all of the required service levels and click **Done**. Section 2.14 of the guide describes how to define the service levels after you create them.

NOTE: Rather than make new service levels for small changes in the schedule, such as a localcommunity event, consult with Avail on the proper way of getting report data for small, infrequent services.

DataPoint automatically creates a "no service" level for your property, which is useful for

the next step of the service level process.

3.11. SETUP: SERVICE LEVEL DEFINITIONS



Use the Service Level Definitions screen to define service levels after you create them. The color coding helps ensure that your property assigns each day of the year to a service level. In the example above, each weekday operates a different service with no service on New Year's Day and Christmas.

HINT: As you hover the pointer over the date squares for service levels, the legend highlights the corresponding service level. Conversely, if you hover the pointer over the legend, the date squares highlight for the corresponding service level.

Service levels are completed yearly, but DataPoint allows you to define service levels for future years. The table below the service level mapping calendar displays each year's completion status.

To define a service level, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Service Level Definitions** and click **Update** in the right-

hand column.

3. In **Service Level**, choose the service level that you want to define.
4. In the checkboxes, check each day of the week that the service level operates. If you want to select more than one day, hold down the Control (Ctrl) key while selecting.
5. In **Start Date** and **End Date**, choose the appropriate dates.
6. Click **Add Service Level** and the new service level definition is added to the color-coded table. Check the table to determine whether definitions are assigned to all days of the year. Add all the required service level definitions and click **Done**.

3.12. SETUP: STOP INFORMATION

WHAT IS A STOP?

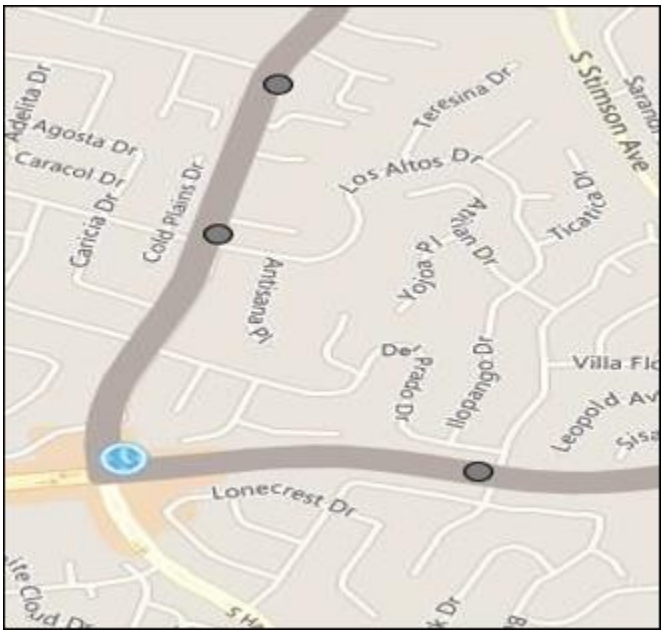
A stop is any point that a property schedules along a route where an operator stops to pick up or drop off riders. In addition to regular stops, DataPoint supports two special types of stops: time point stops and non-public stops.

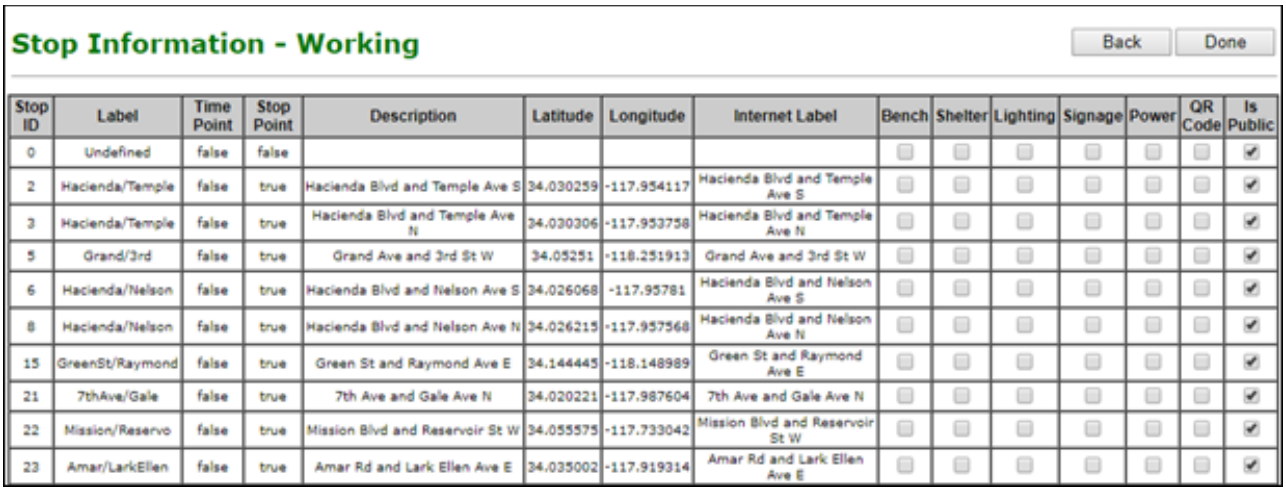
Use time point stops to collect schedule adherence data at stops where passengers board and alight.

Non-public stops are a specialized type of time point stops where operators neither pick up nor drop off riders. Unsurprisingly, the system does not display non-public stops to the public. The purpose of these stops is to collect schedule adherence data when there are large distances between public stops. Set up non-public stops by deselecting the 'Is Public' attribute, as shown on the next page.

The map below displays a route with both stops and time point stops. DataPoint can display stops, time point stops, and non-public stops.

Stops are an important part of DataPoint because they help build patterns, which this guide explains later.





Stop Information - Working

Back Done

Stop ID	Label	Time Point	Stop Point	Description	Latitude	Longitude	Internet Label	Bench	Shelter	Lighting	Signage	Power	QR Code	Is Public
0	Undefined	false	false					☐	☐	☐	☐	☐	☐	☑
2	Hacienda/Temple	false	true	Hacienda Blvd and Temple Ave S	34.030259	-117.954117	Hacienda Blvd and Temple Ave S	☐	☐	☐	☐	☐	☐	☑
3	Hacienda/Temple	false	true	Hacienda Blvd and Temple Ave N	34.030306	-117.953758	Hacienda Blvd and Temple Ave N	☐	☐	☐	☐	☐	☐	☑
5	Grand/3rd	false	true	Grand Ave and 3rd St W	34.05251	-118.251913	Grand Ave and 3rd St W	☐	☐	☐	☐	☐	☐	☑
6	Hacienda/Nelson	false	true	Hacienda Blvd and Nelson Ave S	34.026068	-117.95781	Hacienda Blvd and Nelson Ave S	☐	☐	☐	☐	☐	☐	☑
8	Hacienda/Nelson	false	true	Hacienda Blvd and Nelson Ave N	34.026215	-117.957568	Hacienda Blvd and Nelson Ave N	☐	☐	☐	☐	☐	☐	☑
15	GreenSt/Raymond	false	true	Green St and Raymond Ave E	34.144445	-118.148989	Green St and Raymond Ave E	☐	☐	☐	☐	☐	☐	☑
21	7thAve/Gale	false	true	7th Ave and Gale Ave N	34.020221	-117.987604	7th Ave and Gale Ave N	☐	☐	☐	☐	☐	☐	☑
22	Mission/Reservo	false	true	Mission Blvd and Reservoir St W	34.055575	-117.733042	Mission Blvd and Reservoir St W	☐	☐	☐	☐	☐	☐	☑
23	Amar/LarkEllen	false	true	Amar Rd and Lark Ellen Ave E	34.035002	-117.919314	Amar Rd and Lark Ellen Ave E	☐	☐	☐	☐	☐	☐	☑

DataPoint provides a view of the stop information that your property imports from a scheduling package. DataPoint displays the following columns:

- **Stop ID**: The stop's unique identifier.
- **Label**: A short identifier used where screen space is at a premium.
- **Time Point**: Indicates this stop is used for schedule adherence calculations.
- **Stop Point**: Indicates this is a location where the public can board or alight the vehicle. These are also used in calculating estimated departure times for the public.
- **Description**: The full stop name used internally where space allows.
- **Latitude/Longitude**: Pin points the location of the stop, which is used in system calculations and all map displays. Accuracy is important.
- **Internet label**: The stop name displayed to the public on the Passenger Information website, signage and smart phone applications.
- **Stop amenities flags**: These flags indicate if the stop has a bench, shelter, lighting, signage, power, or a QR code. A QR code is a smart phone readable tag to directly access information that relates to the stop.
- **'Is Public' attribute**: This flag controls whether a stop is displayed and included as part of the public-facing feeds and screens such as: Google Transit Feed, Passenger Information website, IVR, etc. Non-public stops are used to improve departure estimation.

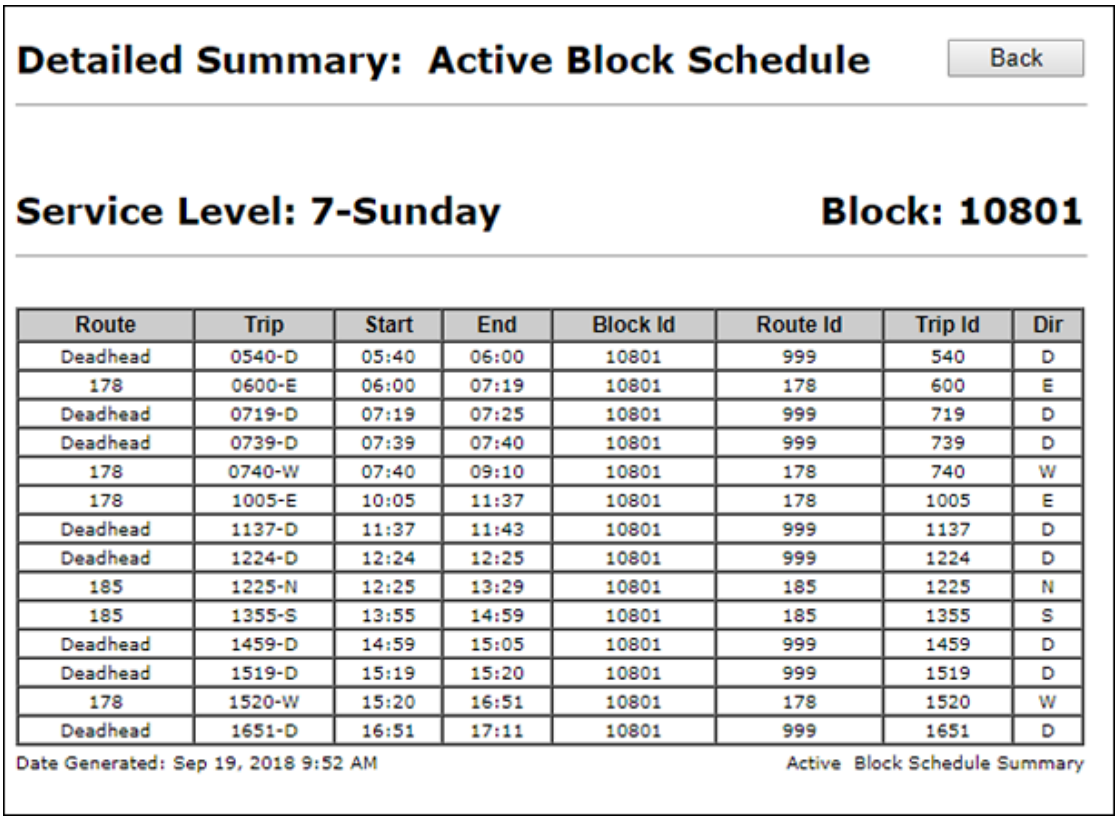
NOTE: A stop has one physical location and should be entered only once for that location. For example, stops on the opposite side of a street are considered two different stops.

3.13. SETUP: BLOCK - RUN INFORMATION

By default, the system displays information using blocks. However, the system can be configured to display information using either runs or blocks.

HOW TO VIEW BLOCK INFORMATION?

A block contains the trips and routes that an administrator assigns to a vehicle for a given service level, including deadhead trips. You can access the schedule by selecting Setup, then selecting to Work On Current Setup or Future, then selecting Block Scheduling view link, then Show Active Block Summary.



Detailed Summary: Active Block Schedule Back

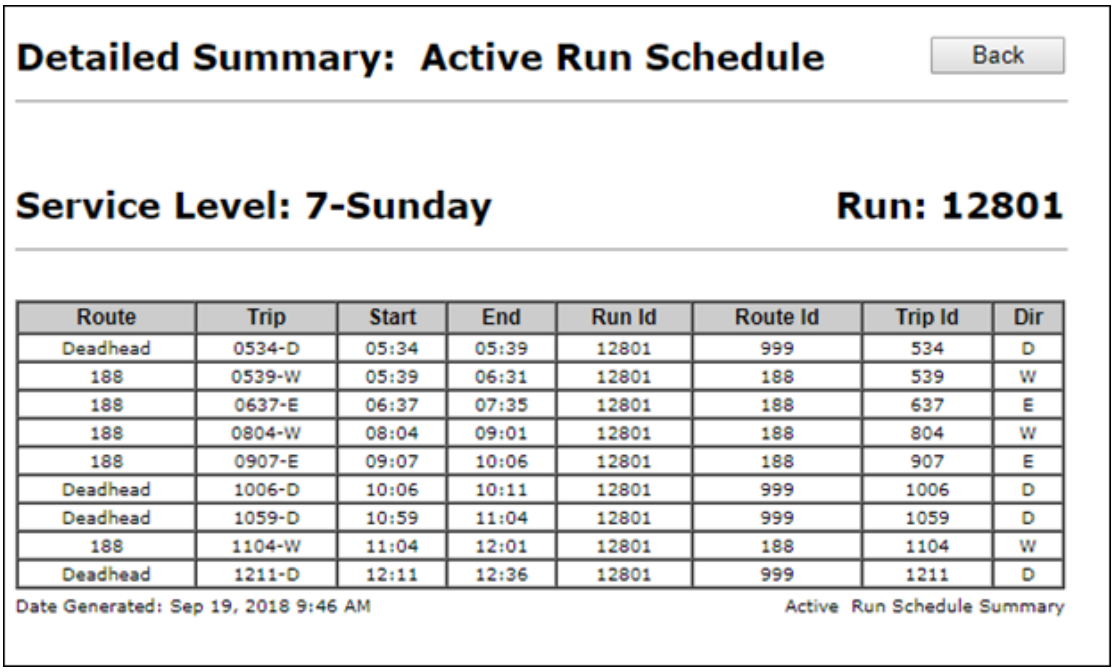
Service Level: 7-Sunday **Block: 10801**

Route	Trip	Start	End	Block Id	Route Id	Trip Id	Dir
Deadhead	0540-D	05:40	06:00	10801	999	540	D
178	0600-E	06:00	07:19	10801	178	600	E
Deadhead	0719-D	07:19	07:25	10801	999	719	D
Deadhead	0739-D	07:39	07:40	10801	999	739	D
178	0740-W	07:40	09:10	10801	178	740	W
178	1005-E	10:05	11:37	10801	178	1005	E
Deadhead	1137-D	11:37	11:43	10801	999	1137	D
Deadhead	1224-D	12:24	12:25	10801	999	1224	D
185	1225-N	12:25	13:29	10801	185	1225	N
185	1355-S	13:55	14:59	10801	185	1355	S
Deadhead	1459-D	14:59	15:05	10801	999	1459	D
Deadhead	1519-D	15:19	15:20	10801	999	1519	D
178	1520-W	15:20	16:51	10801	178	1520	W
Deadhead	1651-D	16:51	17:11	10801	999	1651	D

Date Generated: Sep 19, 2018 9:52 AM Active Block Schedule Summary

HOW TO VIEW RUN INFORMATION?

A run contains the trips and routes that an administrator assigns to an operator for a workday, including deadhead trips and layovers. This can be accessed by selecting Setup, then selecting to Work On Current Setup or Future, then selecting Block Scheduling view link, then Show Active Run Summary.



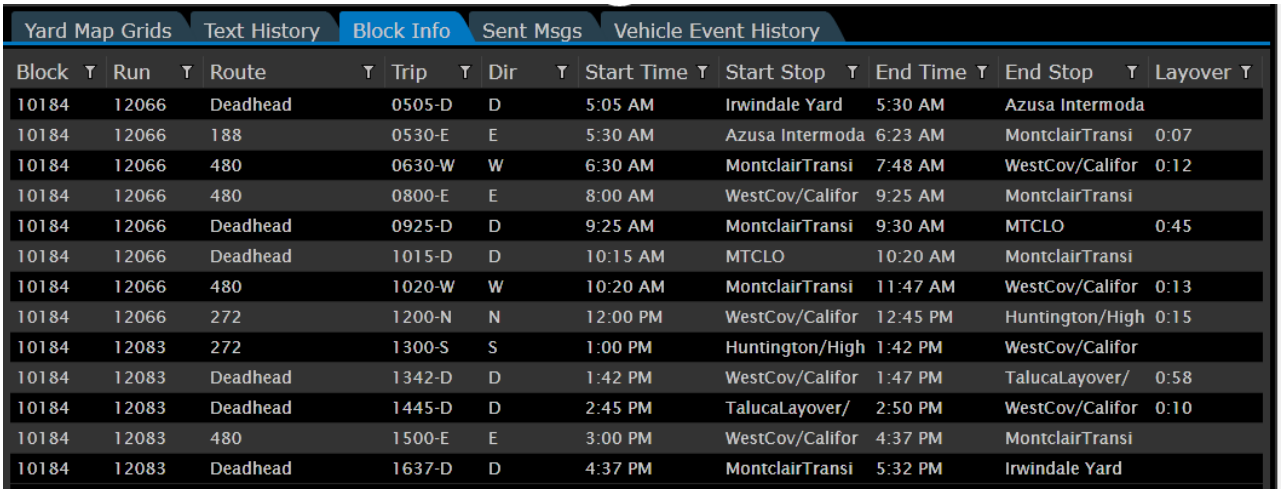
Detailed Summary: Active Run Schedule Back

Service Level: 7-Sunday **Run: 12801**

Route	Trip	Start	End	Run Id	Route Id	Trip Id	Dir
Deadhead	0534-D	05:34	05:39	12801	999	534	D
188	0539-W	05:39	06:31	12801	188	539	W
188	0637-E	06:37	07:35	12801	188	637	E
188	0804-W	08:04	09:01	12801	188	804	W
188	0907-E	09:07	10:06	12801	188	907	E
Deadhead	1006-D	10:06	10:11	12801	999	1006	D
Deadhead	1059-D	10:59	11:04	12801	999	1059	D
188	1104-W	11:04	12:01	12801	188	1104	W
Deadhead	1211-D	12:11	12:36	12801	999	1211	D

Date Generated: Sep 19, 2018 9:46 AM Active Run Schedule Summary

This block information is also available through the myAvail Operations top-level tab in the Block Info sub-tab, which is shown below. myAvail gives dispatchers immediate access to this information so they can determine when a vehicle will be available and determine a vehicle's scheduled location when communications are lost.



Yard Map Grids | Text History | Block Info | Sent Msgs | Vehicle Event History

Block	Run	Route	Trip	Dir	Start Time	Start Stop	End Time	End Stop	Layover
10184	12066	Deadhead	0505-D	D	5:05 AM	Irwindale Yard	5:30 AM	Azusa Intermoda	
10184	12066	188	0530-E	E	5:30 AM	Azusa Intermoda	6:23 AM	MontclairTransi	0:07
10184	12066	480	0630-W	W	6:30 AM	MontclairTransi	7:48 AM	WestCov/Califor	0:12
10184	12066	480	0800-E	E	8:00 AM	WestCov/Califor	9:25 AM	MontclairTransi	
10184	12066	Deadhead	0925-D	D	9:25 AM	MontclairTransi	9:30 AM	MTCLO	0:45
10184	12066	Deadhead	1015-D	D	10:15 AM	MTCLO	10:20 AM	MontclairTransi	
10184	12066	480	1020-W	W	10:20 AM	MontclairTransi	11:47 AM	WestCov/Califor	0:13
10184	12066	272	1200-N	N	12:00 PM	WestCov/Califor	12:45 PM	Huntington/High	0:15
10184	12083	272	1300-S	S	1:00 PM	Huntington/High	1:42 PM	WestCov/Califor	
10184	12083	Deadhead	1342-D	D	1:42 PM	WestCov/Califor	1:47 PM	TalucaLayover/	0:58
10184	12083	Deadhead	1445-D	D	2:45 PM	TalucaLayover/	2:50 PM	WestCov/Califor	0:10
10184	12083	480	1500-E	E	3:00 PM	WestCov/Califor	4:37 PM	MontclairTransi	
10184	12083	Deadhead	1637-D	D	4:37 PM	MontclairTransi	5:32 PM	Irwindale Yard	

3.14. SETUP: ROUTE INFORMATION

In myAvail, a route is a collection of many components that correspond to a specific route label. A set of stops corresponds to a route. The start times and running times between stops associated with a route determine one trip (an instance of the route). A unique order of stops is a pattern. Each trip is assigned a pattern. Therefore, there is no simple answer to the question "What is a Route?" For the purposes of this section, a Route is limited to a collection of attributes that defines the route to the public. (Stops are defined in Setup: Stop Information. A 'trip' is defined in Setup: Trip Information. The pattern is defined in Setup: Pattern Information.)

DataPoint displays routes as a trace on a map with dots for stop indicators and the clock symbol for time points. When a rider says, "I get on the northbound Route M at 3rd and Main St. at 1:00 PM." The name Route M is a route attribute, 3rd and Main St. is a stop attribute, northbound at 1:00 PM defines a trip, and each trip is assigned a pattern.

The screen image below shows all the attributes that can be assigned to a route.

Route Information - Working Back Done

Action	ID	Label	Fareset	Ridership Source	Start Time	End Time	Revenue Miles	Revenue Minutes	Internet Name	IVR Description	Disp. On Dispatch	Perf. Off Route	Map Layer Name	Off Route Dist.	Route Color Info	Google Desc.	Inc. in Google
Trips Stops Patterns	999	Deadhead	1	Farebox	n/a	n/a	n/a	n/a	Deadhead		☑	☐	none	500			☐
Trips Stops Patterns	178	178	1	Farebox	04:29	00:03	0	0	Puente Hills Mall - El Monte Station		☑	☑	Route178	500	Text		☑
Trips Stops Patterns	185	185	1	Farebox	04:45	00:01	0	0	Azusa - West Covina - Hacienda Heights		☑	☑	Route185	500	Text		☑
Trips Stops Patterns	187	187	1	Farebox	03:20	00:40	0	0	Pasadena - Azusa		☑	☑	Route187	500	Text		☑
Trips Stops Patterns	188	188	1	Farebox	03:42	01:08	0	0	Azusa - Montclair		☑	☑	Route188	500	Text		☑
Trips Stops Patterns	190	190	1	Farebox	04:20	01:14	0	0	El Monte Station - Cal Poly via Ramona		☑	☑	Route190	500	Text		☑
Trips Stops Patterns	194	194	1	Farebox	03:45	02:30	0	0	El Monte Station - Cal Poly via Valley		☑	☑	Route194	500	Text		☑

To view a route's attributes, do the following:

1. Click Setup in the left navigation menu and click either Current Setup or Future Setup.
2. In the Setup table, locate Route Information, and click View in the right-hand column.

DataPoint displays the following columns:

- **Actions**: These are links to view associated information
  - Trip
  - Stops
  - Patterns
- **ID**: Unique identifier for the route.
- **Label**: The short identifier for the route.
- **Fareset**: The fares assigned to this route. Fareset is defined in Setup: Fareset Information.
- **Ridership Source**: Ridership for the route can be reported by fares collected or Automatic Passenger Counters (APC) data. This flag determines the default method.

- **Start Time**: The time the first trip of the day begins, including deadheads to the first revenue trip.
- **End Time**: The time the last trip of the day completes, including deadheads to return to the vehicle yard.
- **Revenue Miles**: This is an estimated average value. The revenue miles driven on a route is variable because individual route patterns can vary in length and the trips that are run can change based on the day of the week.
- **Revenue Minutes**: This is an estimated average value. The revenue minutes driven on a route is variable because individual route patterns can vary in length and the trips that are run can change based on the day of the week.
- **Internet Name**: The route name that is displayed for the public on internet applications.
- **IVR Description**: This is the route name that the IVR (Interactive Voice Response) system uses. This name is intended to be compatible with text to speech software.
- **Disp. On Dispatch**: Display on dispatch indicates whether this route is shown on internal displays. Use this feature for deadhead routes and the rare cases where dispatchers are not managing a route.
- **Perf. Off Route**: Perform Off Route indicates whether the off-route calculations are performed for this route. This setting is turned off for deadhead routes.
- **Map Layer Name**: The route name that is shown on a map display.
- **Off Route Dist.**: The Off Route Distance is the number of feet that a vehicle must be off the route trace to be reported as being off route.
- **Route Color Info**: This field displays the colors that DataPoint uses for a route trace and the text.
- **Google Desc.**: Google Description is the route name that General Transit Feed Specification (GTFS) uses.
- **Inc. In Google**: Include In Google indicates whether the system includes the route in the GTFS data.

3.15. SETUP: TRIP INFORMATION

HOW TO VIEW A TRIP?

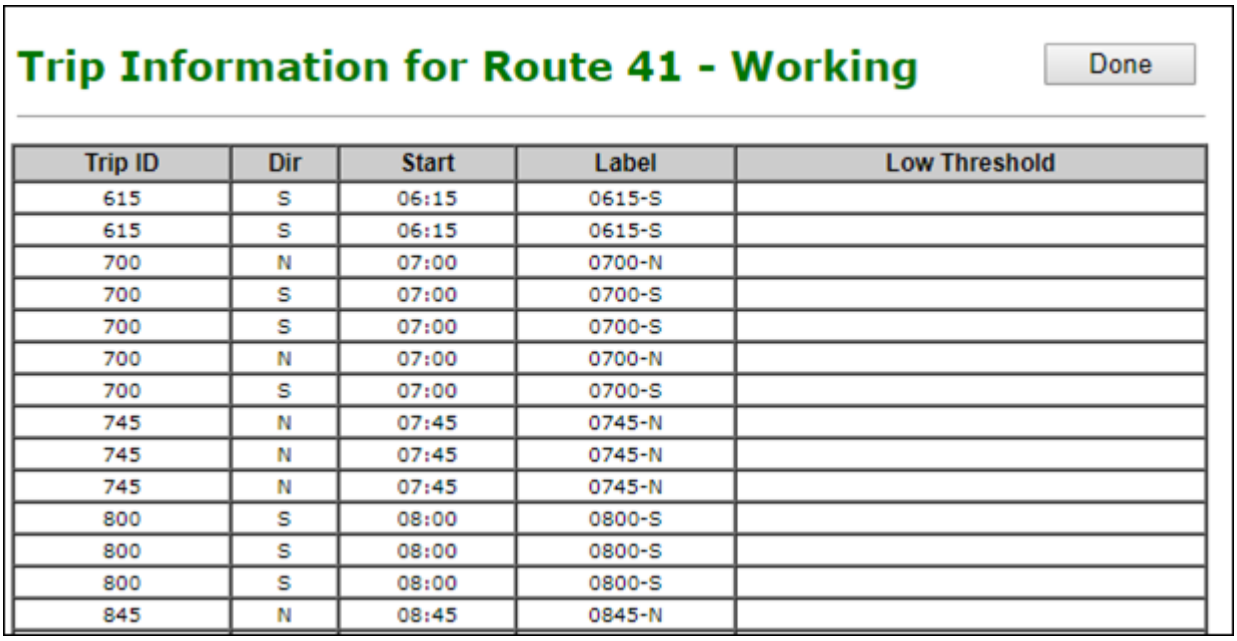
A trip is a specific instance of a route. Administrators assign a pattern to a trip, which defines the order of the stops. The trip defines the start time and running time between each stop.

NOTE: The 6:00 AM trip runs the same pattern as the 8:00 AM trip, but it requires less time due to the lack of traffic and fewer riders. The time adjustments are made in the trip.

To view a trip, do the following:

1. Click **Setup** in the left navigation menu, and then click either **Current Setup** or **Future Setup**.

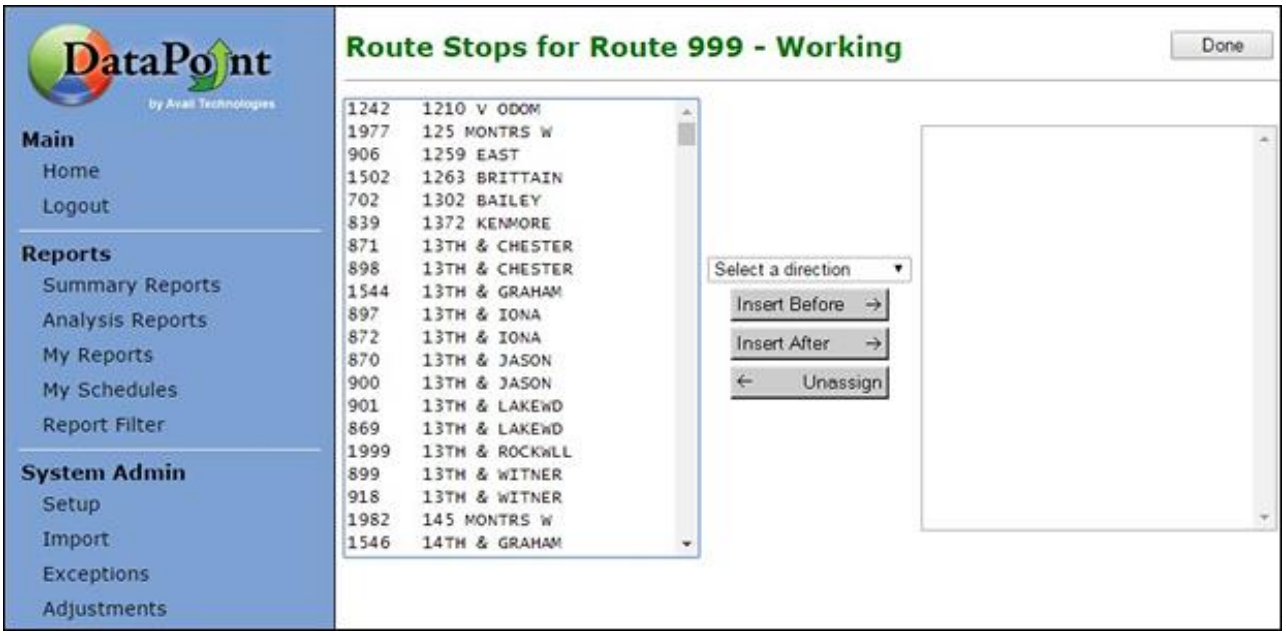
2. In the **Setup** table, locate **Route Information**, and then click **View** in the right-hand column.
3. In the **Route Information** table, locate the route of interest, and then click **Trips** in the left-hand column.



Trip Information for Route 41 - Working Done

Trip ID	Dir	Start	Label	Low Threshold
615	S	06:15	0615-S	
615	S	06:15	0615-S	
700	N	07:00	0700-N	
700	S	07:00	0700-S	
700	S	07:00	0700-S	
700	N	07:00	0700-N	
700	S	07:00	0700-S	
745	N	07:45	0745-N	
745	N	07:45	0745-N	
745	N	07:45	0745-N	
800	S	08:00	0800-S	
800	S	08:00	0800-S	
800	S	08:00	0800-S	
845	N	08:45	0845-N	

3.16. SETUP: STOP LIST INFORMATION



Use the Route Stops screen to create an ordered stop list. Stop lists allow you to build patterns later in the Setup process.

To create a stop list, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future**

Setup.
2. In the **Setup** table, locate **Route Information** and click **Update** in the right-hand column.
3. In the **Route Information** table, locate the route of interest and click **Stops** in the left-hand column.
4. Select the direction to which you want to add stops. Then, highlight each stop from the left-hand list and click **Insert Before** or **Insert After** to add it to the right-hand list. The list that you create will be used to produce the patterns in the next step. To remove a stop from the right-hand list, select the stop and click **Unassign**.
5. When you have completed your list, click **Done**.

3.17. SETUP: PATTERN INFORMATION

A pattern is a stop list that has distance offsets for all stops. A distance offset is the amount of distance in feet between each stop and the next stop.

NOTE: DataPoint stores the stop-to-stop distances as the distance from the stop to the beginning of the pattern.

If all the trips on a route have the same stops, then only one pattern is required for each direction of the trip to provide the order of the stops.

In other cases, a route can have trips that do not stop at all the stops or have different distance offsets. Both conditions require an additional pattern for each variant.

To view a pattern, do the following in the Route Information screen (patterns only exist in relation to a specific route):

1. Click **Setup** in the left navigation menu, and then click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Route Information**, and then click **View** in the right-hand column.
3. In the **Route Information** table, locate the route of interest, and then click **Pattern** in the left-hand column.

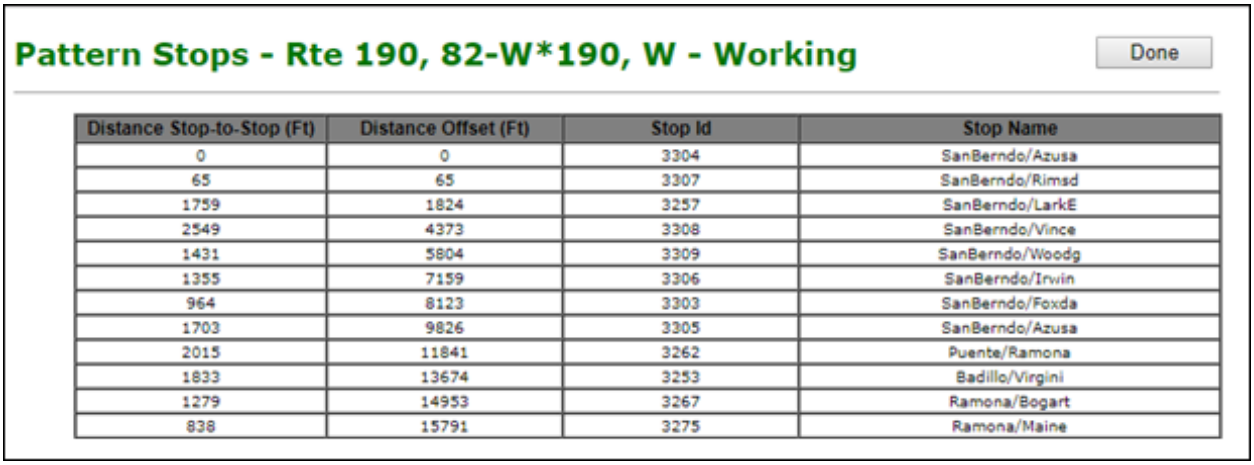
Pattern Information for Route 190 - Working Done

Action	Pattern Name	Direction	Description	Total Distance	Headsign Id	External Announce Id	Google Shape Id	Headway
Stops	77-E*190	E	77-E*190	10.48 mi	220	0		
Stops	79-W*190	W	79-W*190	10.1 mi	221	0		
Stops	82-W*190	W	82-W*190	8.07 mi	221	0		
Stops	97-E*190	E	97-E*190	16.55 mi	219	0		
Stops	98-W*190	W	98-W*190	16.44 mi	221	0		

DataPoint displays the following columns:

- **Actions**: "Stops" is a link that displays the stops that comprise this pattern.
- **Pattern Name**: The pattern name is often rather cryptic and conveys information about the pattern.
- **Direction**: Every pattern has a direction, which varies depending on the type of route or property conventions. Examples are as follows:
    - **Inbound/Outbound**: "Hub and spoke" patterns use these terms.
    - **North/South or East/West**: Properties use compass directions when there is no central transfer center.
    - **Loop, Clockwise, Counter Clockwise**: When the route operates in only one, properties call it a "loop". When vehicles operate in both directions of a loop, properties use the terms Clockwise and Counter Clockwise.
    - Properties can use any combination of these terms.
- **Description**: A longer descriptive pattern name.
- **Total Distance**: The sum of all stop-to-stop distances.
- **Headsign ID**: Identifies the headsign code that the system sends to "Destination A" for trips using this pattern.
- **External Announcement ID**: Identifies the announcement that plays on the external speakers when either door is opened while on a trip using this pattern.
- **Google Shape ID**: Pointer to the shapes record for this pattern as sent in the GTFS data.
- **Headway**: When checked, the system schedules all trips using this pattern as headway trips rather than a fixed stop time schedule.

To view the stops that comprise this pattern, on the pattern information page, click the "Stops" link in the action column of the desired pattern.

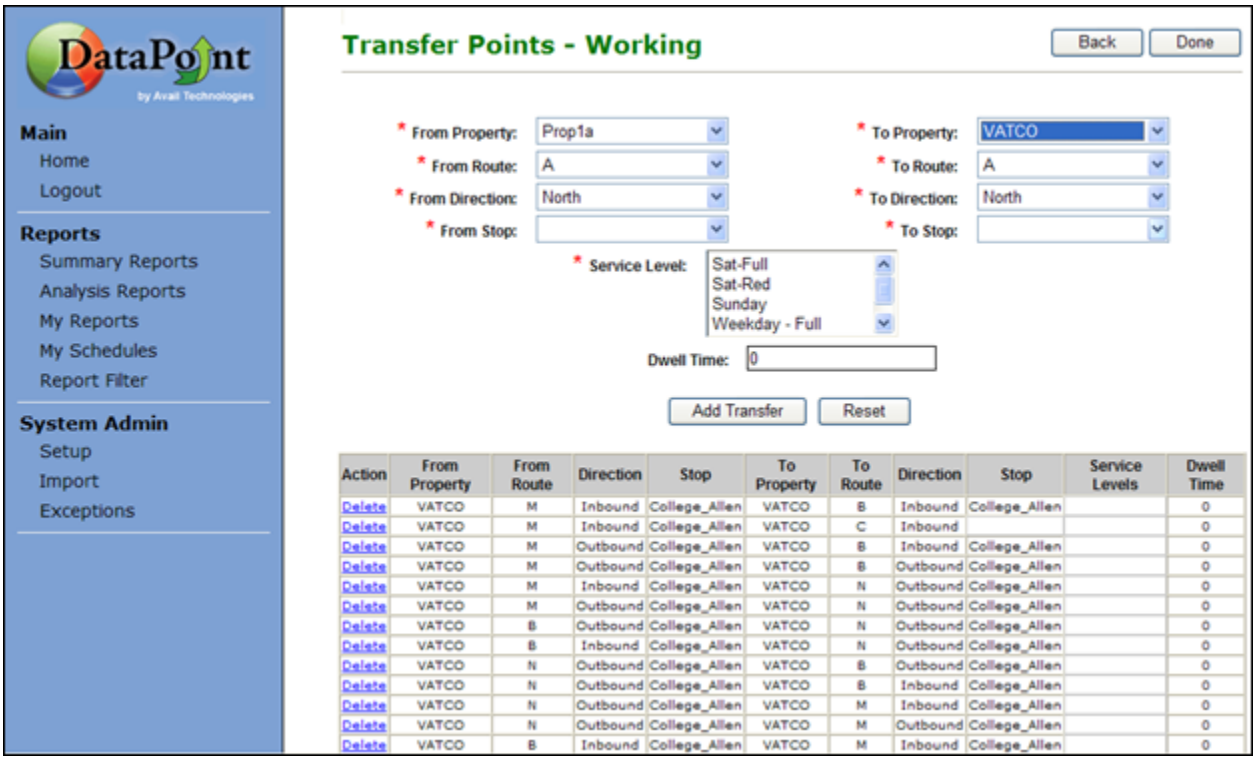


Distance Stop-to-Stop (Ft)	Distance Offset (Ft)	Stop Id	Stop Name
0	0	3304	SanBerndo/Azusa
65	65	3307	SanBerndo/Rimsd
1759	1824	3257	SanBerndo/LarkE
2549	4373	3308	SanBerndo/Vince
1431	5804	3309	SanBerndo/Woodg
1355	7159	3306	SanBerndo/Irwin
964	8123	3303	SanBerndo/Foxda
1703	9826	3305	SanBerndo/Azusa
2015	11841	3262	Puente/Ramona
1833	13674	3253	Badillo/Virgini
1279	14953	3267	Ramona/Bogart
838	15791	3275	Ramona/Maine

DataPoint displays the following columns:

- **Distance Stop to Stop (Ft)**: This is the distance in feet from the previous stop.
- **Distance Offset (Ft)**: This is the distance in feet from the first stop of the pattern.
- **Stop ID**: A unique identifier for the stop.
- **Stop Name**: The name assigned to the stop.

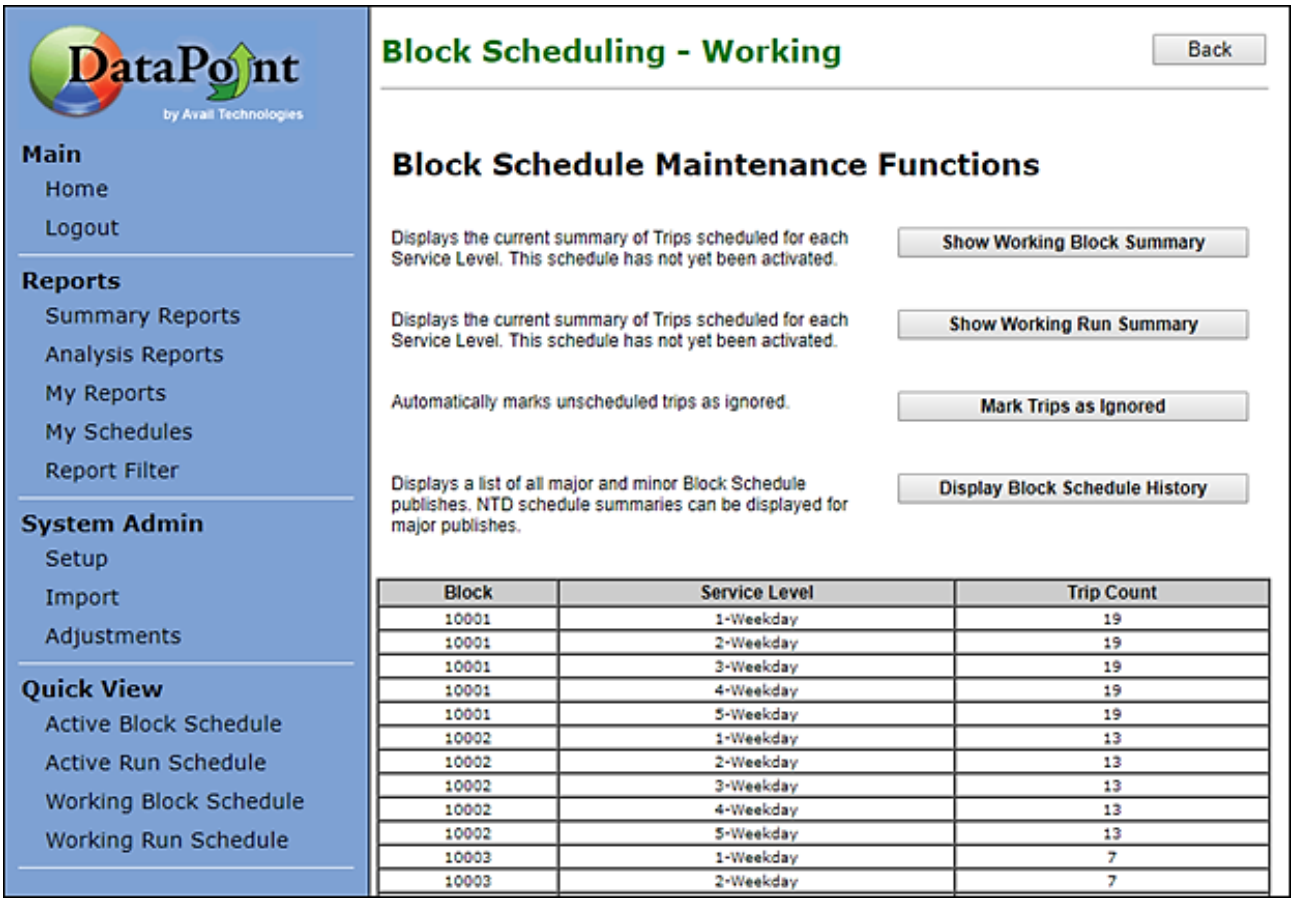
3.18. SETUP: TRANSFER POINTS



Use the transfer page to set up stops for transfer connection protection (TCP). TCP allows the system and operators to work together to ensure that passengers make their transfers to other routes. To create a transfer point, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Transfer Points** and click **Update** in the right-hand column.
3. Use the set of **From** drop-down lists in the left column to specify information about where the transfer originates.
4. Use the set of **To** drop-down lists in the right column to specify information about the transfer destination.
5. In **Service Level**, highlight all service levels that are applicable for this transfer.
6. If the stop specified in **From Stop** is not at the end of a trip, and if the requesting vehicle dwells at this stop, then enter the time in **Dwell Time**. Do not enter a dwell time if **From Stop** is at the end of the trip because the schedule data account for it.
7. Click **Add Transfer**.
8. Repeat these steps until you have entered transfers for all the required stops. When you have completed the transfers, click **Done**.

3.19. SETUP: BLOCK SCHEDULING

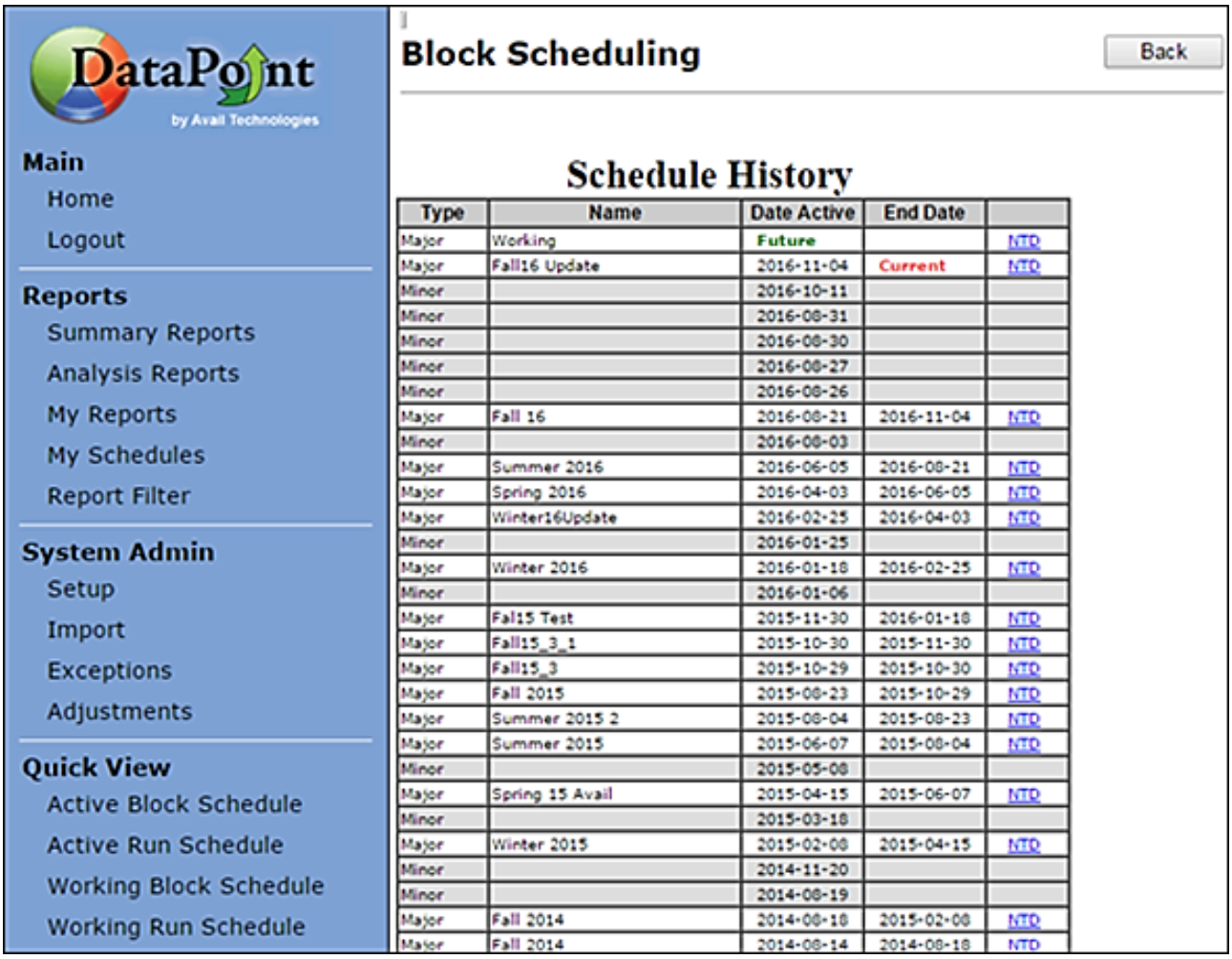


myAvail's scheduling uses blocks. Blocks are the trips administrators assign to a vehicle for the day. This section describes how to view the assigned trips to blocks and runs.

Above you can see the features that DataPoint provides for block scheduling in the working schedule workspace. The working schedule workspace allows you to view changes to your future block schedule that is stored without affecting the Current schedule. After you complete the working schedule in your scheduling package and choose to publish it, the schedule becomes the Current schedule and it uses it the incoming farebox information or AVL schedule.

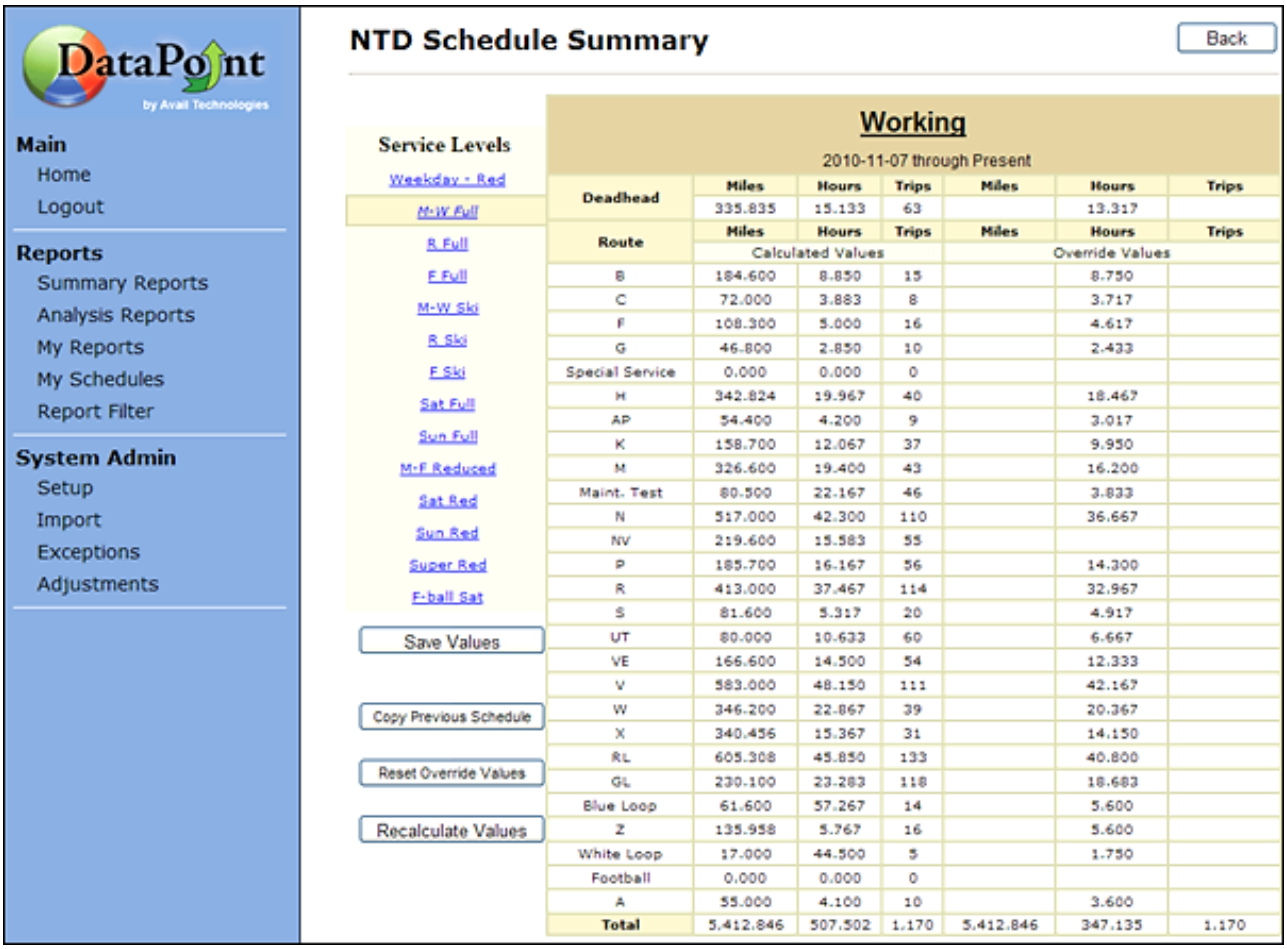
To publish a working schedule, you must use the **Build & Deploy** tab in myAvail.

3.20. SETUP: BLOCK SCHEDULING: NTD SCHEDULE SUMMARY VALUES



DataPoint can create reports for the National Transit Database (NTD) based on the schedule data. To ensure that the number of miles and hours are correct for any major schedule, do the following:

1. Click **Setup** in the left navigation menu and click either **Current Setup** or **Future Setup**.
2. In the **Setup** table, locate **Block Scheduling** and click **View** in the right-hand column.
3. Click Display Block Schedule History button.
4. Click **NTD** for the schedule of interest and the NTD Schedule Summary screen appears.



On the NTD Schedule Summary screen, values listed under Calculated Values are calculated directly from the schedule data. They are automatically recalculated when a schedule is published. These values are used in multiple reports, including the NTD and the revenue per mile/hour reports. The calculated values for miles, hours, and number of trips should be verified for accuracy.

Occasionally, the calculated values are incorrect. For example, trips with a mid-trip relief are scheduled twice, once on the run that starts the trip and once on the run that finishes the trip. In these cases, it is necessary to enter override values that reflect the true values for the schedule.

You can edit the cells in the three Override Values columns of the table. Simply enter the necessary override values directly in the appropriate cells in the table. If you specify override values, they are used for reporting instead of the calculated values.

You can also use the following buttons to edit override values:

- **Service Level:** This list contains all the service levels for the selected schedule. You should select and verify all service levels.
- **Save Values:** This button saves the values that you entered in the override cells.
- **Copy Previous Schedule:** This button copies all the override values from the

previous schedule for the selected service level. This function is useful if you want to make the same correction for each schedule cut.

- **Reset Override Values:** This button erases all the override values for the selected service level.
- **Recalculate Values:** This button recalculates the values for the selected schedule. This capability is only available for schedules where the data are still available. Data are available for the future, current, and one previous schedule.

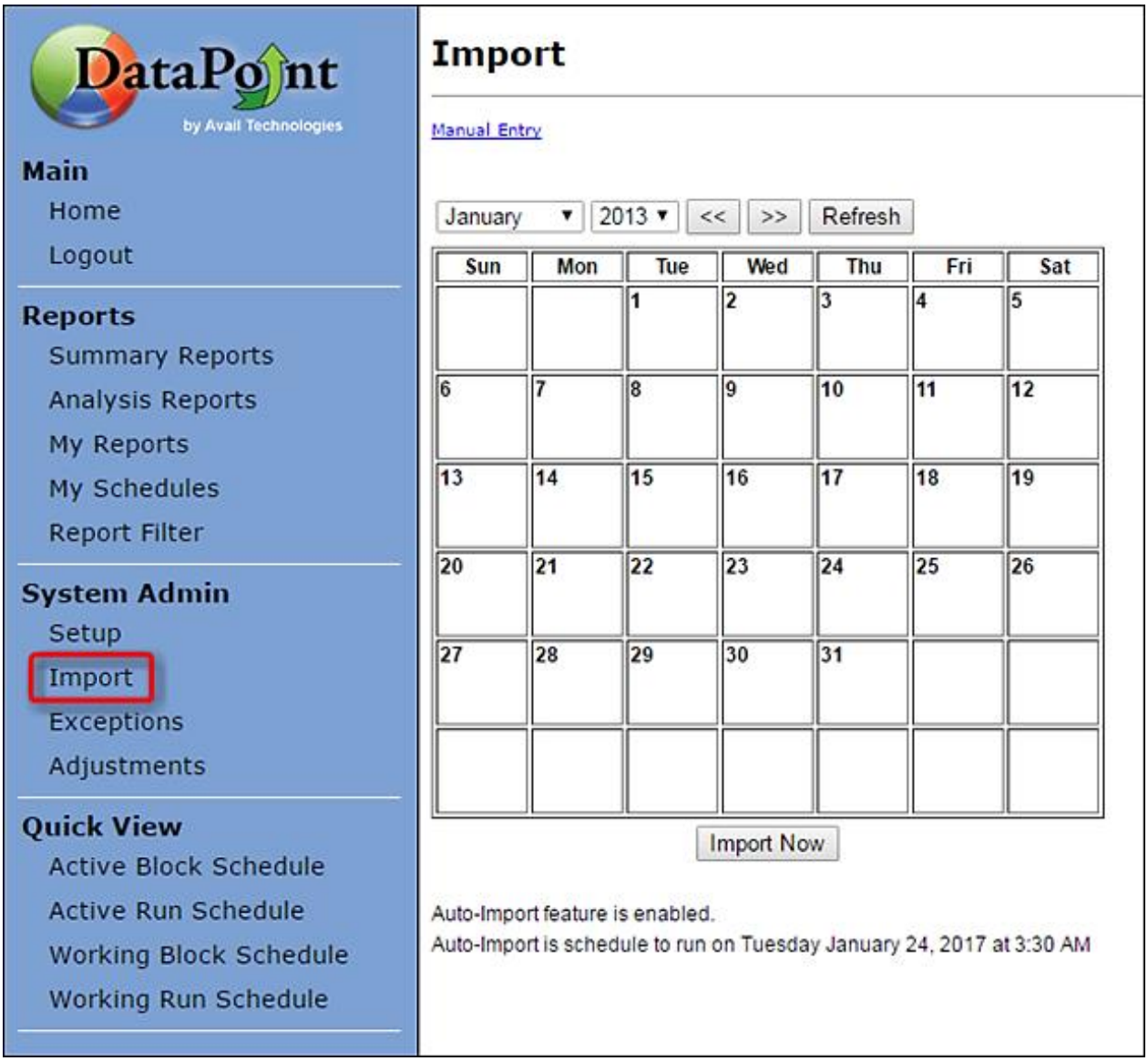
TIP: This button is most useful when you make changes to the future schedule. Recalculate the values to determine the effect of the changes.

NOTE: Recalculate Values applies to all service levels of the selected schedule.

NOTE: Due to migration of DataPoint reports, NTD Trip Samples Report and NTD Summary Report are now also located in our ETMS system under Compliance suite/NTD Reporting card. For names and location of all the DataPoint reports, see our *DataPoint and BI Report Mapping* pdf document.

4. DAILY USAGE

4.1. IMPORT FAREBOX DATA FROM - GFI SYSTEM 7



Use the Import screen to transfer data into the DataPoint database. Data must be imported before reporting can be performed on a day's data.

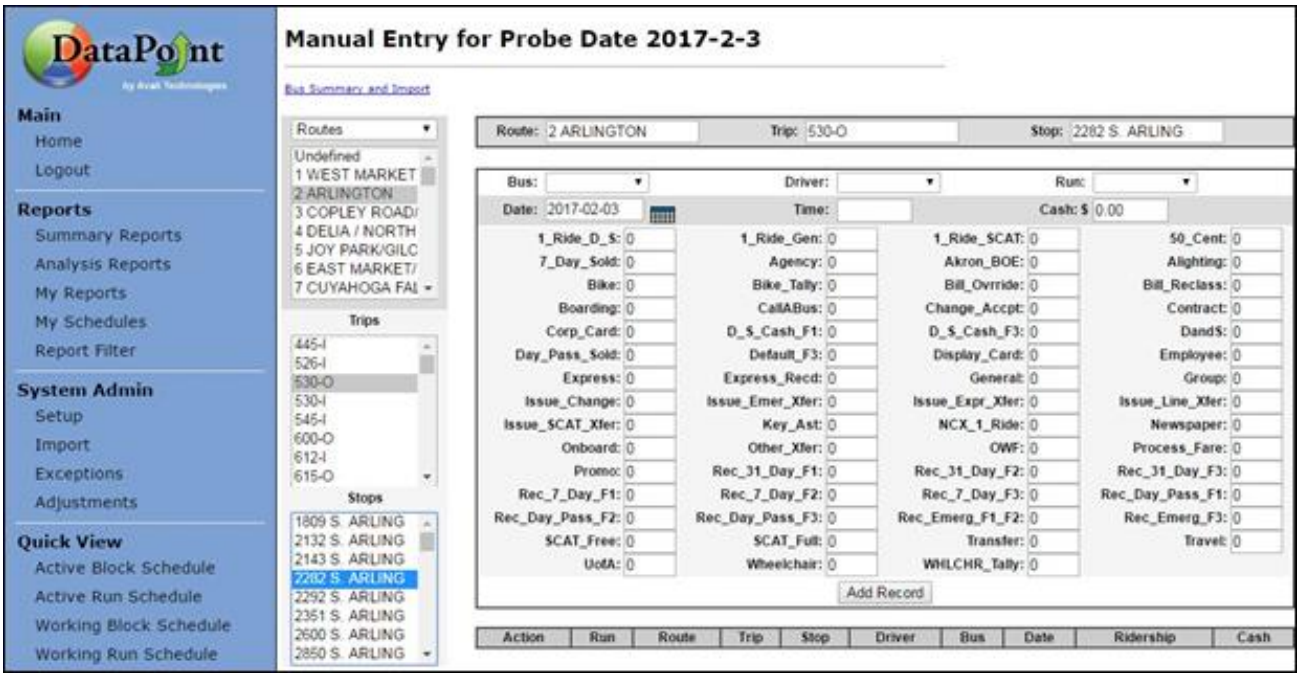
To import data for a specific date, click that date on the calendar and click **Import Now**. On the calendar, white indicates that the data have not been imported while yellow indicates that the data have been imported already.

If your property does not have fareboxes or Avail APCs, use Manual Entry to enter your ridership information. If your property has fareboxes or Avail APCs, then skip ahead to section to learn about exception testing.

MANUAL ENTRY

Use Manual Entry if your property does not have fareboxes or Avail APCs in all the vehicles and the operators record ridership information. Additionally, use Manual Entry to enter a Special Event service that qualifies for NTD reporting. Manual Entry allows a user to choose each day of the month and enter all ridership information for each route down to each stop.

1. Click **Import** in the left navigation menu.
2. Click **Manual Entry** and the screen above appears. Then, click the calendar icon, choose a date, and click **Continue**.



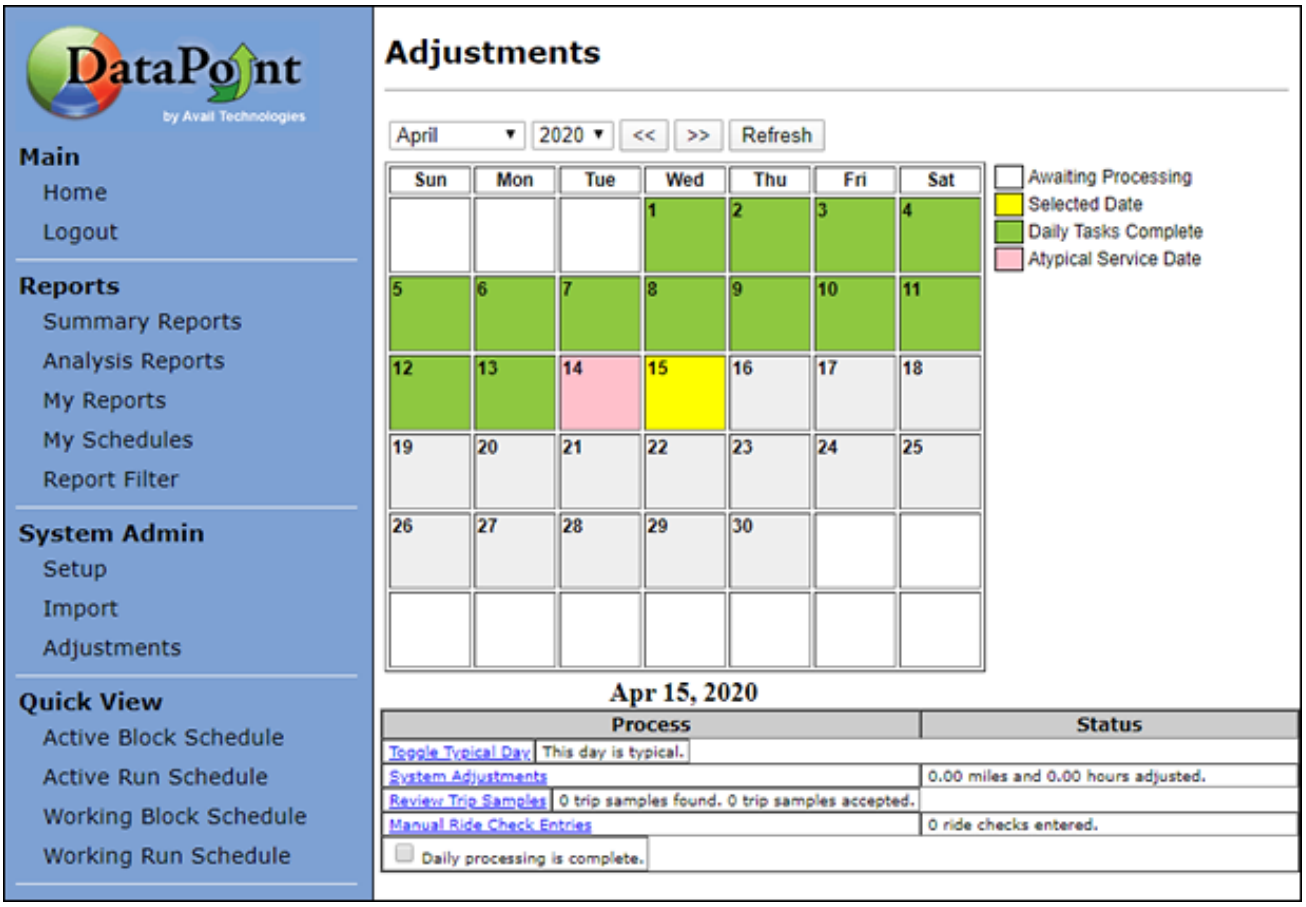
Manual entry of ridership data is a simple process and requires only the selection of boxes and entering key pieces of information.

DataPoint makes the Manual Entry process easier by showing only the Trip and Stop lists for the route that you select. Additionally, DataPoint provides a list of all your fare types, and a place to enter how many riders for each fare type were picked up at each stop.

1. Select the **Route**. Then select a **Trip** from that Route, and a **Stop** from that Trip.
2. Select the **Bus**, **Driver**, and **Run**.
3. Select the **Date** and enter the **Time**.
4. Enter the amount of cash collected and the fare types for that stop.
5. Click **Add Record** and continue with the next stop, and then trip, until the end of that day.

When your list is complete, click **Bus Summary and Import** to review your work. Complete the process and import the data into DataPoint by clicking **Finish and Import** on the Bus Summary and Import screen.

4.2. ADJUSTMENTS



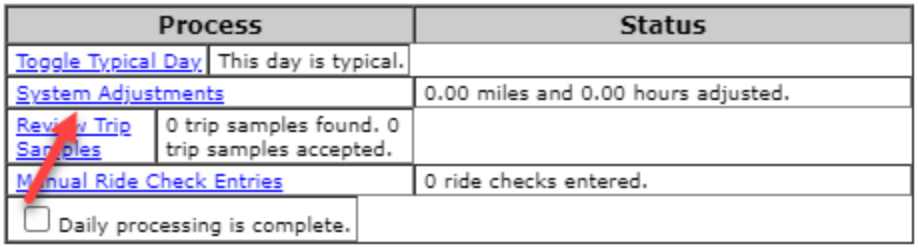
The adjustments calendar guides you through the daily tasks that you need to complete. To see the list of tasks, click on a day in the calendar. The table displays the name and status of each process for that day.

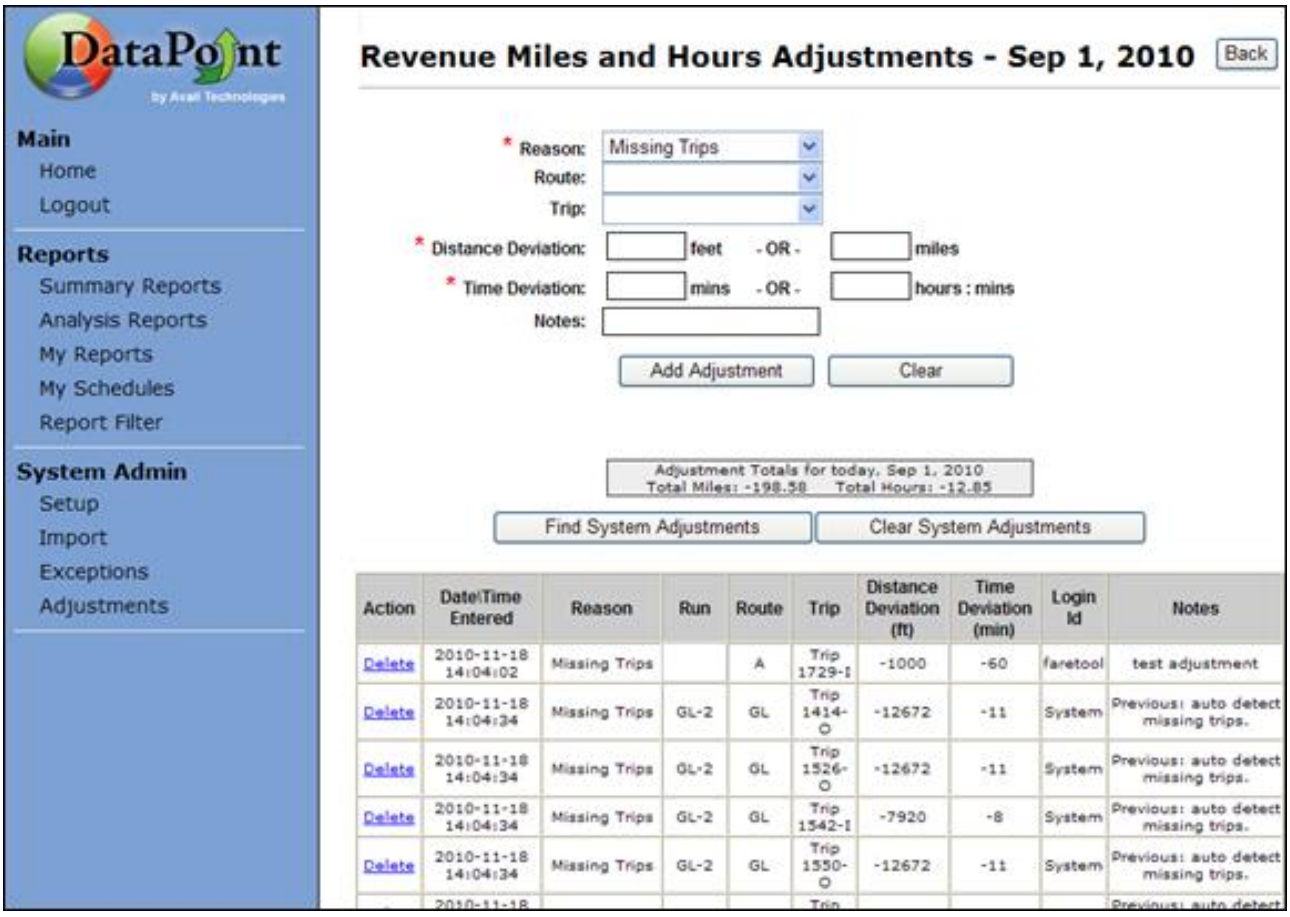
- **Toggle Typical Day:** Marking a day as Atypical causes the NTD report to ignore that day when doing its calculations. Days should be marked as Atypical only for major changes in service, such as a natural disaster as defined by the NTD.
- **System Adjustments:** Adjustments are used to modify the miles and hours serviced for a day when a trip does not perform its scheduled service. When adjustments are made they are accounted for in the NTD reports and used by the Missing Trips summary report.
- **Review Trip Samples:** Loads trip samples for review. Transit personnel must review trip samples before the system can include them in reporting. The review screen is described in more detail below.
- **Manual Ride Check Entries:** Forms that allow DataPoint users to enter ride check data that personnel recorded while riding vehicles, such as boards, alights, and their notes.

4.2.1. SYSTEM ADJUSTMENTS

Adjustments are changes to the miles or hours of a trip and/or route that have been run. Any service that did not follow the scheduled service should have an adjustment. When adjustments are made, they are accounted for in NTD reports and used by the Missing Trips summary report. If NTD and Missing Trips reports are not used, adjustments are not required but they can be helpful for tracking unscheduled service changes.

To open System Adjustment page, go to Adjustments section, pick a day in the calendar and click on the System Adjustments link.





The **Find System Adjustments** button adds missed trips or additional trips to the table. DataPoint identifies these trips by assessing the vehicle data. You should review each of these entries to verify that they are accurate. For example, the system might flag a trip as being missed because the database does not include any data for that trip. However, the

vehicle might have been unequipped on that trip and, therefore, the trip was not actually missed. In that case you need to Delete that entry from the table.

Tip: Clicking **Find System Adjustments** multiple times adds all system adjustments back to the list, even if they had been previously deleted.

The system only determines that a trip had been missed trip if there are no data at all in the database for that trip. For example, if an operator starts a trip but cannot complete it due to a vehicle breakdown, the system does not enter it into the adjustments table. DataPoint users must enter the missing portion into the table manually using the fields at the top of the page.

Leaving the route or trip field blank adds these adjustments to the report for that day but not for a specific route or trip. While this is not a good practice due to the ambiguity, the NTD report does not require that a route or trip be specified because it is based on weekday, Saturday, and Sunday.

In **Distance Deviation** and **Time Deviation**, enter negative values for scheduled services that were not performed. Enter positive values for additional services that were provided beyond those that were scheduled. Click **Add Adjustment** to add it to the table.

Click **Clear System Adjustments** to clear the list of adjustments that DataPoint found automatically. This button is useful if **Find System Adjustments** had been pressed before the data were imported.

NOTE: Missing trips from system adjustments do not depend on whether exceptions have been done for that day but there must be an import for that day.

4.2.2. Review Trip Samples

Use the NTD Trip Sample Review screen to accept or decline the trip samples that were selected for NTD reporting. Trips should be accepted or declined based on whether the trip appears to be valid. Trips with negative or high Estimated Ride-through counts are more likely to be invalid trips.

The system generates a list of samples when you select **Review Trip Samples** link.

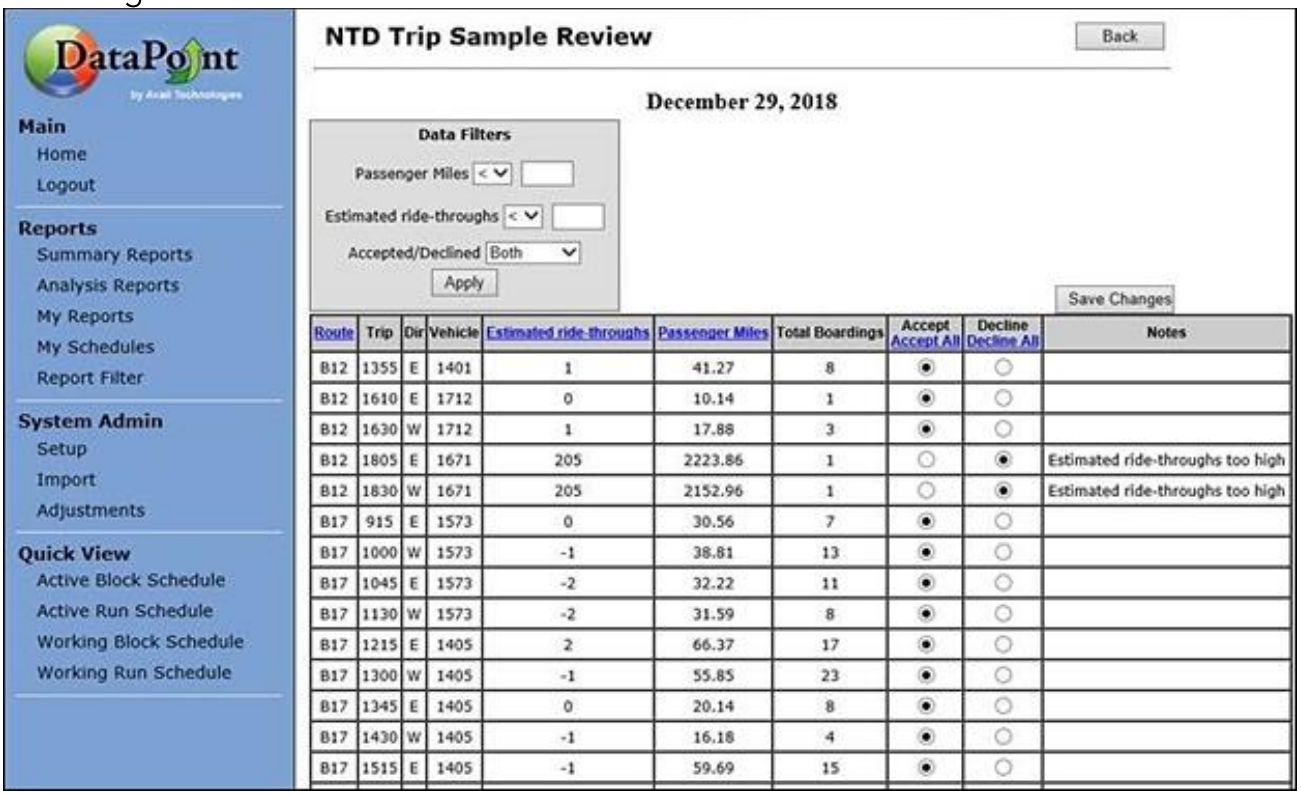
Process		Status
Toggle Typical Day	This day is typical.	
System Adjustments		0.00 miles and 0.00 hours adjusted.
Review Trip Samples	0 trip samples found. 0 trip samples accepted.	
Manual Ride Check Entries		0 ride checks entered.
☐ Daily processing is complete.		

The list contains trips that have an APC report for each stop and have APC counts that are not above the plausibility threshold. This threshold is configurable.

Use the Data Filters to filter out trips by the following characteristics:

- **Passenger Miles**: When passenger miles are less than the miles you specify, the system does not include those trips in the list (default). You can change the filter to remove trips with passenger miles greater than the amount you specify.
- **Estimated ride-throughs**: When differences between boards and alights for the trip are less than the percentage you specify, the system does not include those trips in the list (default). You can change the filter to remove trips with differences greater than the amount you specify.
- **Accepted/Declined**: When trips have previously been accepted or declined, the system does not include those trips in the list (default). You can change the filter to display previously accepted and/or declined trips. This filter is helpful when you need to change the status of a trip that had previously been accepted or declined.

The NTD Trip Sample Review page below displays two declined trips with the note field indicating the reason.



Route	Trip	Dir	Vehicle	Estimated ride-throughs	Passenger Miles	Total Boardings	Accept (Accept All)	Decline (Decline All)	Notes
B12	1355	E	1401	1	41.27	8	◉	○	
B12	1610	E	1712	0	10.14	1	◉	○	
B12	1630	W	1712	1	17.88	3	◉	○	
B12	1805	E	1671	205	2223.86	1	○	◉	Estimated ride-throughs too high
B12	1830	W	1671	205	2152.96	1	○	◉	Estimated ride-throughs too high
B17	915	E	1573	0	30.56	7	◉	○	
B17	1000	W	1573	-1	38.81	13	◉	○	
B17	1045	E	1573	-2	32.22	11	◉	○	
B17	1130	W	1573	-2	31.59	8	◉	○	
B17	1215	E	1405	2	66.37	17	◉	○	
B17	1300	W	1405	-1	55.85	23	◉	○	
B17	1345	E	1405	0	20.14	8	◉	○	
B17	1430	W	1405	-1	16.18	4	◉	○	
B17	1515	E	1405	-1	59.69	15	◉	○	

This page provides several features that can help you determine whether a sample is valid. Only accepted trips are used in reporting.

- **Data Filters:** Passenger Miles, Starting Onboard, and Accepted/Declined allow users to filter the list of samples to look for possible issues such as high starting onboard counts.
- **Sorting:** Click a blue column name to sort the list by that column. Click a second time to sort that column the other direction.
- **Accept/Decline All:** Click these buttons to either accept or decline all samples that are displayed in the list. If the list is filtered, only the displayed trips are affected.
- **Save Changes:** Click to save the state of the Accept and Decline radio buttons for

all trips.

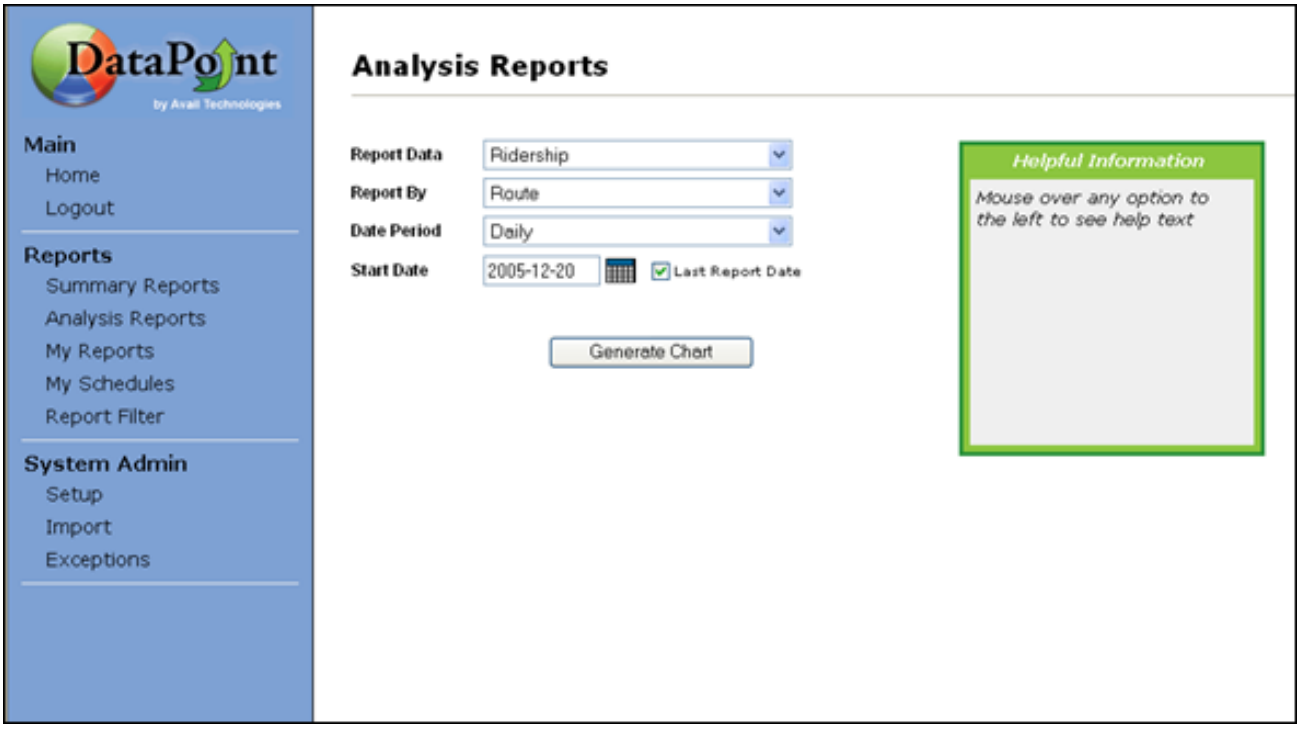
- **Sample Row:** Clicking on a row itself brings up the trip sample detail view. This view allows you to see every stop and the boarding, onboard, and alighting for each stop.

The best way to process this data is to do the following:

1. Click **Accept All**.
2. Click the Starting Onboard column to sort the report.
3. Review each sample and decline bad samples. Pay particular attention to samples with negative and unusually high staring onboard counts.
4. Click **Save Changes**.

NOTE: Due to migration of DataPoint reports, NTD Trip Samples Report and NTD Summary Report are now also located in our ETMS system under Compliance suite/NTD Reporting card. For names and location of all the DataPoint reports, see our *DataPoint and BI Report Mapping* pdf document.

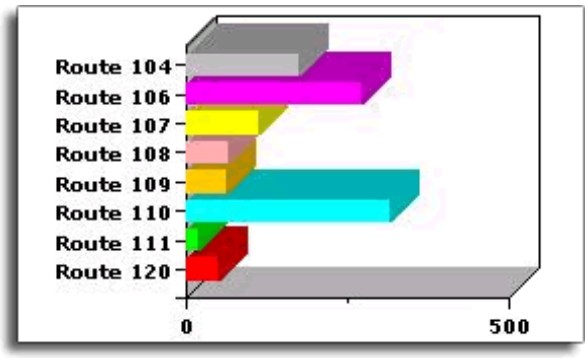
5. ANALYSIS REPORTS



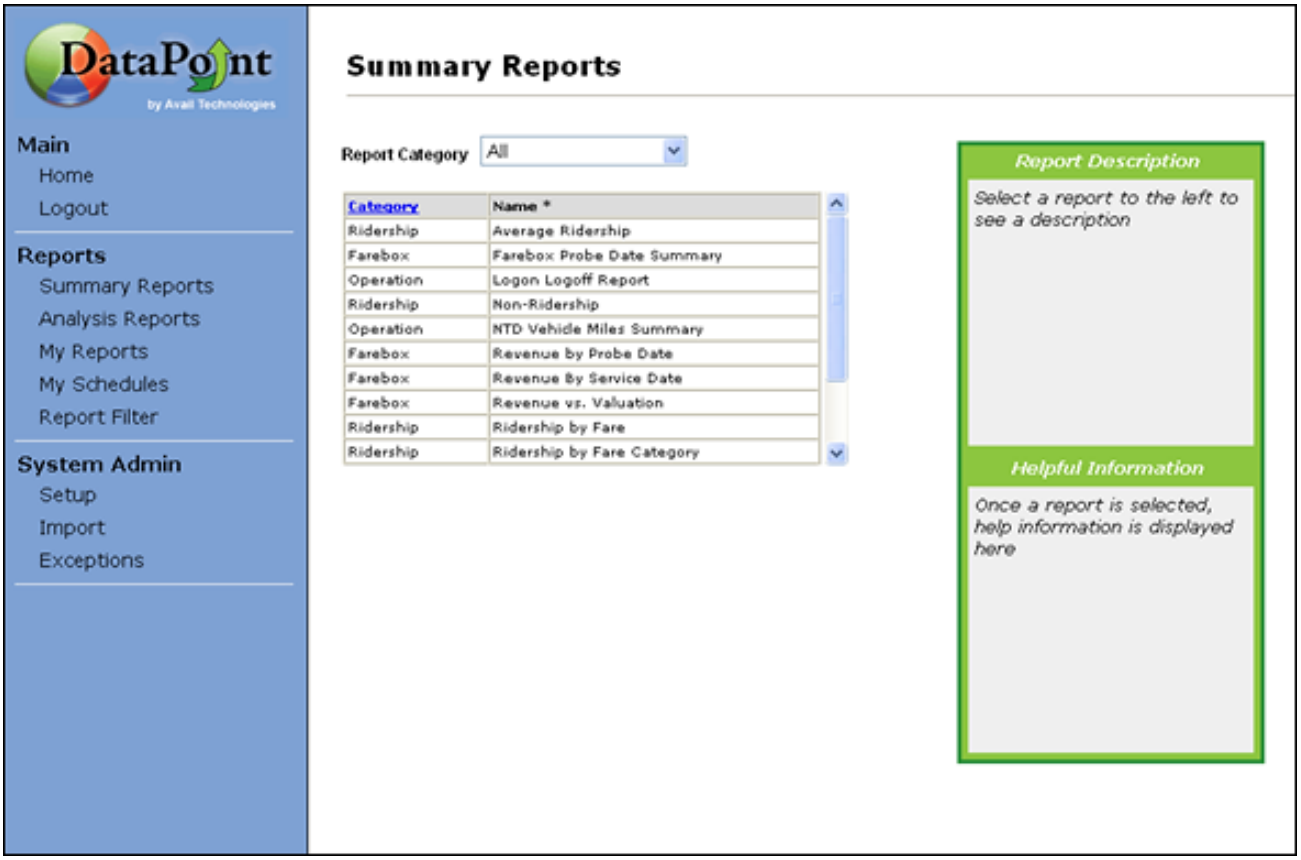
Use the options in the Analysis Reports screen to quickly create detailed charts based on a variety of categories.

- **Report Data**: Select the data that you want to view. Options include Ridership, Farebox Ridership, Farebox Valuation, APC Data, and Non-Ridership.
- **Report By**: Select how you want to categorize the data. Options include route, fare, vehicle, operator, run stop, service level, and time unit.
- **Date Period**: Select the timeframe for the report. Options include daily, weekly, monthly, year to date, and user (which has no boundaries and will show data that occurred anywhere in between the two dates you enter in below).
- **Start Date**: Use the calendar to specify the starting date for the report. If you select *User Defined* in **Date Period**, you also need to specify the end date.

5.1. IN-REPORT FEATURES

Chart Screen	
Analysis Chart	The analysis chart allows you to view the data in an efficient and simple way. If you move your mouse over any of the bars of the chart, you will see a box that displays the value of that bar. If you click on a bar, you willdrill-down into more specific data. Selected drill-down options are visible below the title of the chart. E.g. clicking on Route 104 in the chart above would bring up a chart with drill-down option **Route = 104**.
Report By Options	 Clicking the links creates a chart using the category you select. The report displays the same underlying data butusing different categories. For example, if you click 'Bus' for the chart above, the chart will display ridership counts by bus. (e.g., Bus 1, Bus 2, etc.) rather than routes (e.g., Route 104, Route 106, etc.).
Fare Table	 This button will take the current data and break it down further to show the data by fare type columns and the currently selected report by option.
Route Table	This button will take the current data and break it down further to show the data by route columns and the currently selected report by option.
Printer Friendly Format	Click here to see a printer friendly version of the chart. This format is more ideally suited for printing.

6. SUMMARY REPORTS



Summary reports are a series of reports grouped by type (Farebox, Operations and Ridership). These reports can assist your property in both daily operations and long-term planning.

Creating a Summary Report is almost identical to the Analysis Reports. Select from the drop-down boxes to specify the type of report to generate, the timeframe it covers, and the dates you would like to view. Each summary report has customized options with a description of each option in the help box on the right side of the screen. Clicking on Run now will give you a neatly designed report of the information you requested.

NOTE: The Business Intelligence tool is supplementing the myAvail reporting functions. This embedded reporting tool has additional capabilities and should be used for additional reports. See the *Business Intelligence User Guide* and *Business Intelligence Report Guide* for details on this tool.