

Geocoding, Directions, and Route Optimization

August 26, 2022

Executive Summary:

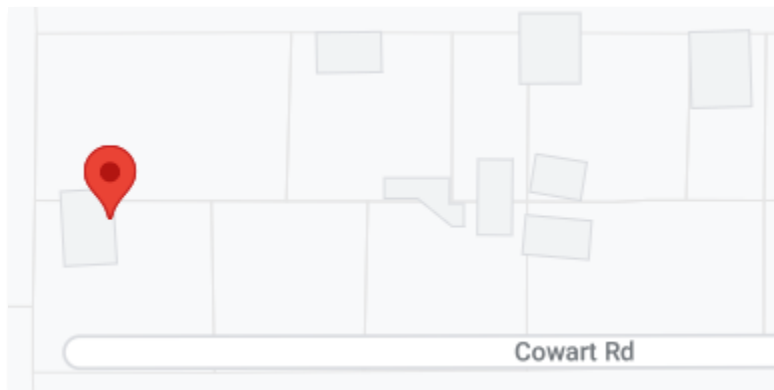
ServTracker has a wide array of capabilities that affect and support client locations and directions. This document is intended to provide an overview of those capabilities and their interactions to help customers determine how best to utilize them.

- **Geocoding:** In order to use any mapping, routing, or optimization capabilities, clients must have a longitude and latitude identifying their location. If the geocode for an address cannot be confirmed, ServTracker provides options for the customer to be able to identify the values.
- **Route Delivery Sequence Manager (RDSM):** When setting up routes, ServTracker provides a tool that allows the customer to establish a sequence for the route. If the customer does not utilize optimization, the RDSM will determine the sequence for clients on the route when service units are created.
- **Client-Specific Directions:** ServTracker provides the ability for the customer to enter manual directions that can be appended or overridden when directions are generated.
- **Mapping/Optimization:** ServTracker provides a function that allows the customer to generate directions for the routes based on the service units that were created for a given date. The directions will take into account the clients that are receiving meals on that date, the RDSM sequence, client-specific directions, start and end points, and other factors that can be incorporated into the directions. If the customer has purchased optimization, this can be incorporated into the mapping process. Optimization will override the RDSM sequences and attempt to identify the optimal route sequence based on the clients that are receiving meals that day.
- **Setup > Geoservices:** Customers can decide between two services for directions and three services for optimization.
- **Setup > Routes > Auto-Optimize:** ServTracker provides the ability to auto-optimize routes. This powerful feature optimizes the sequence of all routes unless they are specifically identified not to be included.

***Please note:** *While this document is designed to support a variety of scenarios related to route optimization, directions and geocoding, there may be instances where challenges involving client addresses need to be reviewed individually and manually adjusted. The ServTracker support team is happy to work with you individually to resolve any of your challenges. We can be reached at service@accessiblesolutions.com or by phone at 1-800-886-2818 option 1.*

Geocoding

- ServTracker® attempts to identify the longitude and latitude of the client's location based on the address. This process is called geocoding.
- Geocoding occurs when the client is first entered in the system and any time that the address is changed.
- Until recently, the geocoding process found the longitude and latitude by "display". This process identifies the coordinates based on the location of the building on the property. See below.



- On June 1st, we updated the geocoding process to find the coordinates by "route", which identifies the longitude and latitude based on the street location of the address. See below.



- Most of the time, this should provide a more accurate location for purposes of GPS mapping to get to the client's home.
- **If customers would like us to do so, we can run a script to recode the locations of the clients in their database.**

Geocoding – Address Not Found

- If the system cannot identify the coordinates of the address, a window will be provided with options to identify the longitude and latitude.

Geocoding - Address Not Found

The client's address could not be geocoded by the mapping software. Please review the entered address then select the best option below.

☒ **Option 1. Fix address and re-geocode.**

Address:

Bld/Apt:

City:

State/Province: Postal Code:

☐ **Option 2. Update address to the selected result.**

Latitude	Longitude	Address	City	State
29.4393131	-83.2891215	123 Main St	Horseshoe Beach	FL
27.8135734	-80.4814889	123 Main St	Vero Beach	FL

☐ **Option 3. Manually enter latitude and longitude.**

Latitude: Longitude:

☐ **Option 4. Skip geocoding.**

☐ **Option 5. Ignore geocoding.**

Client: 6003 - Harry Kane

- Option 1: Re-enter or update the address to fix what was in error and click Apply.
- Option 2: If possible, the system will identify some possible corrections. Select the desired option and click Apply.
- Option 3: If the longitude and latitude are known, enter them here and click Apply.
- Option 4: This option allows you to skip over the geocoding this time. Future changes to the client will attempt to find the geocode. Select option and click Apply.
- Option 5: This option allows you to skip over the geocoding all of the time. It will check the Do Not Geocode box for this client. Select option and click Apply.

Route Delivery Sequence Manager (RDSM)

- The RDSM is used to establish a manual sequencing of the clients on the route.
- The RDSM can be accessed by the Routes menu item at the top of the client screen, from the Route Delivery Sequence Manager button in the Home Delivered Meals window, or from the Manage Delivery Seq button in the meal plan schedule record.

Route Delivery Sequence Manager

Route Group: ROCKLEDGE Status: Active Clients (Include Future Starts)

Route: RO1 Delivery Day: (All)

☐ Include Driver Instructions ☐ View Alternate Route Assignments

☐ Exclude Long Holds ☐ Exclude Today's Holds

Drag and Drop sequence to desired order

Deliver	Client	Address	Status
0	Blake Mueller	1104 Pinedale Rd	Unassigned
0	David Gomer	1040 Bernice Rd	Unassigned
0	Eugene Ytoner	1030 Hayden Rd	Unassigned
1	Katy Moore	1883 Barrington Circle	
2	Autoroutenew Stew	1885 Barrington Circle	
3	Michael Allen	4162 Fountain Palm Rd.	
3	Wife Of Autorene...	1885 Barrington Circle	
4	Michael Kingston	840 N. Cocoa Blvd. Suite D	
5	Willy M. Browne	1885 Barrington Circle Building 4g	
6	Clark G. Caswell	2402 E. Granger Rd	
7	Ralph Lincoln	4004 Edgewood Pl	
8	Drake Jackson	2600 Clearlake Rd	
9	Sue B. Brozman	1463 W Brozman Ln 1111	
10	Frederick A. Gibson	7004 Ash Dr	
11	Edward R. Chadw...	4162 Fountain Palm Rd Building ...	
12	Jeff Dunham	4162 Fountain Palm Rd.	
13	My New Tester A. ...	4162 Fountain Palm Rd	
14	Ken Griffy	6375 Ainsworth Rd	
15	Kirk Deevers	6375 Ainsworth Rd	

Map Client Count: 41 Close

- Clients can be dragged to the desired location in the sequence and results can be checked by clicking the map icon.
- This is the sequence that will be followed on the route sheets unless route optimization is utilized.
- The selections in the upper right corner of the screen can enable you to look at different slices of the route (by day, excluding holds, etc.) but be careful to ensure that all clients are sequenced. **Note: The sequences cannot be arranged differently for different days of the week with the RDSM.**
- When a meal plan is first established for a client, the delivery sequence will be 0 unless you enter a sequence when creating the schedule.

Home Delivered Meals - Blake Mueller - Edit

SCHEDULE

Provider: MOW P1 Max Daily Units: 0

Meal start: 05/20/22 Auth Monthly Units: 0

Meal end: 11/22/22

End reason: Being provided

Meal: Frz dinner

Diet: Regular

Menu: Ckn - Chicken and Waffle w/it

Beverage: Grape Juice

Beverage Qty (per meal type): 1

Funding: 3 Rivers

Auth. #:

Rotation:

Max Daily Units: 0

Auth Monthly Units: 0

Schedule: 1 0 0 0 0 0 0

Frequency: Weekly

Delivery Day: Monday

Holiday Meal Qty: 0

Sliding Fee Amount: \$0.00

Donation Pledge: \$0.00

Prescription Number: 0

Primary Route: Manage Delivery Seq

Route grp: ROCKLEDGE

Route: RO1

Del Seq: 0 ☐ Office Delivery

Del Fee:

Auto Route ☒ Keep only these directions when running auto direction update in service units.

☐ Append these directions when running auto direction update in service units.

Residence directions:

Master Rt Sheet

Created: Admin 5/19/2022 9:21:28 AM

Updated: Admin 5/19/2022 9:21:28 AM

Client ID: 5985

Undo Save Record Save & Add New

Copy Sched. Paste Sched. Close

Client-Specific Directions

- Manual directions can be entered for a client on the meal plan schedule entry.

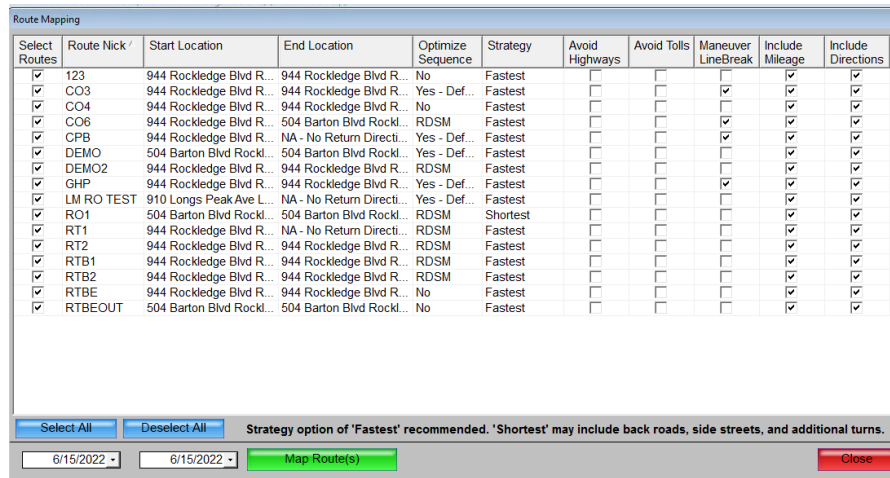
- **Keep only these directions...:** This option will override any directions that result from the service unit mapping process. The directions entered on the client meal plan record are the only ones that will appear on the route sheets.
- **Append these directions...:** This option will include these directions on the route sheets after the directions that result from the service unit mapping process.

Service Unit Mapping/Optimization

- ServTracker® allows flexibility on how the mapping and optimization processes are applied to the routes.
- Select the map button on the service unit screen.



- This will open the service unit mapping window.



Select Routes	Route Nick	Start Location	End Location	Optimize Sequence	Strategy	Avoid Highways	Avoid Tolls	Maneuver LineBreak	Include Mileage	Include Directions
☒	123	944 Rockledge Blvd R...	944 Rockledge Blvd R...	No	Fastest	☐	☐	☐	☒	☒
☒	CO3	944 Rockledge Blvd R...	944 Rockledge Blvd R...	Yes - Def...	Fastest	☐	☐	☒	☒	☒
☒	CO4	944 Rockledge Blvd R...	944 Rockledge Blvd R...	No	Fastest	☐	☐	☐	☒	☒
☒	CO6	944 Rockledge Blvd R...	504 Barton Blvd Rockl...	RDSM	Fastest	☐	☐	☒	☒	☒
☒	CPB	944 Rockledge Blvd R...	NA - No Return Directi...	Yes - Def...	Fastest	☐	☐	☒	☒	☒
☒	DEMO	504 Barton Blvd Rockl...	504 Barton Blvd Rockl...	Yes - Def...	Fastest	☐	☐	☐	☒	☒
☒	DEMO2	944 Rockledge Blvd R...	944 Rockledge Blvd R...	RDSM	Fastest	☐	☐	☐	☒	☒
☒	GHP	944 Rockledge Blvd R...	944 Rockledge Blvd R...	Yes - Def...	Fastest	☐	☐	☒	☒	☒
☒	LM RO TEST	910 Longs Peak Ave L...	NA - No Return Directi...	Yes - Def...	Fastest	☐	☐	☐	☒	☒
☒	RO1	504 Barton Blvd Rockl...	504 Barton Blvd Rockl...	RDSM	Shortest	☐	☐	☐	☒	☒
☒	RT1	944 Rockledge Blvd R...	NA - No Return Directi...	RDSM	Fastest	☐	☐	☐	☒	☒
☒	RT2	944 Rockledge Blvd R...	944 Rockledge Blvd R...	RDSM	Fastest	☐	☐	☐	☒	☒
☒	RTB1	944 Rockledge Blvd R...	944 Rockledge Blvd R...	RDSM	Fastest	☐	☐	☐	☒	☒
☒	RTB2	944 Rockledge Blvd R...	944 Rockledge Blvd R...	RDSM	Fastest	☐	☐	☐	☒	☒
☒	RTBE	944 Rockledge Blvd R...	944 Rockledge Blvd R...	No	Fastest	☐	☐	☐	☒	☒
☒	RTBEOUT	504 Barton Blvd Rockl...	504 Barton Blvd Rockl...	No	Fastest	☐	☐	☐	☒	☒

Select All Deselect All Strategy option of 'Fastest' recommended. 'Shortest' may include back roads, side streets, and additional turns.

6/15/2022 6/15/2022 Map Route(s) Close

- You can select the routes that you want to map, the start and end locations, and other options for each route.
- **Optimize Sequence:** If you have licensed geoservices, you are able to optimize the sequence for routes for that day. ServTracker® uses an optimization service (see Geoservices Setup) to determine the optimal routing for the clients receiving meals that day.
 - **No:** This route will not be optimized and will maintain the delivery sequences found in the RDSM.
 - **Yes – Default:** This will optimize the clients on the route in a general forward sequence from the starting point to the ending point.
 - **Yes – Reverse:** This will reverse the optimized sequence.
 - **RDSM:** This option allows you to re-sequence the service units based on the RDSM if you have changed the sequence in RDSM after creating service units.
- **Strategy:** You can select the shortest or fastest route for directions.
- **Avoid Highways:** If selected, the system will try to avoid using highways.
- **Avoid Tolls:** If selected, the system will try to avoid toll roads.
- **Maneuver LineBreak:** If selected, each maneuver will be listed on a separate line.
- **Include Mileage:** If selected, the system will include mileage with the directions.
- **Include Directions:** If selected, the system will generate directions using the service selected in Setup.
- Once you have selected the desired options, click on the Map Routes button.

Setup > General > Geoservices

- This setup option controls the service used for generating directions and the service used for route optimization.

Geoservices Options

Geoservices Options

Route Directions

☒ Bing

☐ MapQuest

Route Optimization

Note: MapQuest can only be used for routes up to 23 stops

☐ RouteSavvy (Bing)

☐ RouteSavvy Real Road (Bing)

☒ MapQuest

Close

- ServTracker® recommends RouteSavvy® Real Road or MapQuest if your routes have 23 clients or less.

Setup > Home Meals > Routes

- This setup option is used to configure routes.

Setup HM Routes

Route Group: A Test RO Pick-up Time: 2:00 PM Hours: 0 Miles: 0 ☐ Mobile Route

Route Nick: 1111 Kitchen Seq: 0 Vehicle ID: 0 Meal Qty: 0 ☐ Do Not Auto Route

Route Desc: 1111 TEST Export Id: 0 Max Miles: 0 Max Clients: 0 ☐ Do Not Auto Optimize

Double-Click an item to Enable/Disable it.

Route Nick	Route Description	Route Group	Pickup time	Seq	Veh. ID	Hours	Miles	M Qty	Mobile	No Auto Route	No Auto Optimize	Enabled
Test	test*	BEACHSIDE	0	0	0	0	0	0	No	No	No	Yes
1111	1111 TEST	A Test RO	5/22/2022 2:00	0	0	0	0	0	No	No	No	No
11460a	11460/a	MD Center	0	0	0	0	0	0	No	No	No	Yes
11460z	north miami	MD Center	0	0	0	0	0	0	No	No	No	Yes
123	123	COCOA	0	0	0	0	0	0	No	No	No	Yes
8th	FZ Cordova 6 Thur	Harlin	0	0	0	0	0	0	No	No	No	Yes
CO1	Cocoa 1	COCOA	0	0	2.5	25	0	Yes	No	No	No	Yes
CO2	Cocoa 2	COCOA	0	0	0	0	16	Yes	No	No	No	Yes
CO3	Cocoa 3	COCOA	0	0	0	0	0	No	No	No	No	Yes
CO4	Cocoa 4	COCOA	0	0	0	0	0	No	No	No	No	Yes
CO5	Cocoa 5	COCOA	9:00:00 AM	2	0	7.5	32	15	No	No	No	Yes
CO6	RT Route	RT	0	0	0	0	0	No	No	No	No	Yes
CPB	Beachside	BEACHSIDE	0	0	1.75	21	15	No	No	No	No	Yes
DEMO	DEMO	DEMO	0	0	0	0	0	No	No	No	No	Yes
DEMO2	DEMO2	DEMO	0	0	0	0	0	No	No	No	No	Yes
GHP	GHP	BEACHSIDE	0	0	0	0	0	No	No	No	No	Yes

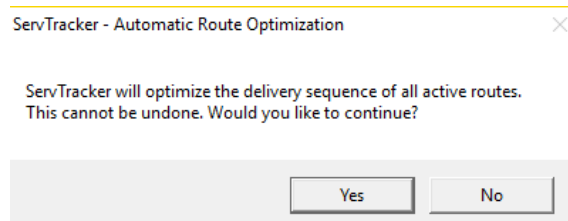
Edit Remove Enable All Disable All Route Boundaries Auto Route Auto Optimize Route Providers Route Meal Types Route Funding

Enabled: 26 of 27 Records

- You can prevent the route from being available for auto optimization by clicking the Do Not Auto Optimize checkbox.
- "Auto-Optimize" provides you with visualization of the routes, but it is not required if you have a route optimization license. **Note: "Auto optimize" only affects the RDSM area. It is recommended that you run this process during your operation down-times (morning or late evening). Depending on your client volume and number of schedules, the process may take time to update.**

Setup > Home Meals > Routes > Auto Optimize

- You can automatically optimize the delivery sequence for all active routes by clicking the Auto Optimize button on the route setup screen. This will re-sequence all active routes, so the following warning is provided:



Contact Us

- If you have any questions or would like to request this change be made to your system, send an email to service@accessiblesolutions.com.