

TravelTracker–Routing and Transportant Provide an Integrated Solution for Tracking School Buses and Routes



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Transportant, a student transportation management solution, works with hundreds of schools across the USA to keep students safe by making their buses smarter. The Kansas-based company offers a complete suite of student safety products for schools, including:

- High-definition cameras
- GPS fleet management
- Turn-by-turn directions
- Student ridership
- Reporting

Notably, routing software is not included in Transportant's suite of products. Routes—an essential component of Transportation—must be manually entered or connected through an API (application programming interface) to an existing routing software.

TravelTracker–Routing (TT-R), a cloud-based routing software, is a critical addition for Transportant in providing Transportation Departments with a fully integrated solution. All the information related to routes, like individual stop times, can be imported straight from TravelTracker–Routing into Transportant.

“We know our schools have a better experience when they choose TravelTracker for routing.”

– Jeff Shackelford, Vice President of Sales at Transportant

How Does Transportant Integrate with TravelTracker's Routing Software?

Since both Transportant and TT-R integrate with the SIS system, users can securely sync information between the two systems. There is a unique interface for both Transportant and TravelTracker–Routing, so customers must work between two different dashboards. A Transportation Director, for instance, can build routes within the TT-R system and then integrate and review the planned routes within the Transportant application.

“It [TravelTracker–Routing] tends to perform better than the other ones as we've seen it in action, hence the partnership.”

– Jeff Shackelford

Users may not see an update with a competitive product until the end of the day or a couple of days, depending on their configured system settings. With TravelTracker–Routing, it's much more frequent. When drivers shut the bus down and start it back up again, it will have the most up-to-date information.

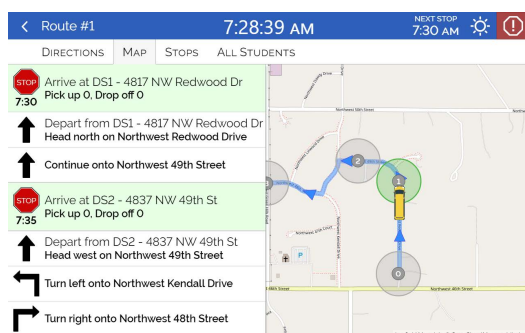
How Does a Customer Work Between Transportant and TravelTracker–Routing?

The typical workflow for a customer revolves around planning their routes in the TT–R dashboard and then viewing the live routes in Transportant. According to Alan Fairless, Co-Founder and CTO at Transportant, *"If we contrast that with another product, other than TravelTracker, the workflow is a lot more difficult to plan and view live routes because you want the information out of Transportant to be able to inform updating the routes."*

"TravelTracker can pull in all the information for real-time changes with the high-fidelity import."

– Alan Fairless, Co-Founder and CTO at Transportant

If a bus driver is assigned a new route, they can go into the Transportant tablet, CoPilot, and select the updated route. It'll appear with turn-by-turn directions—defined by TravelTracker–Routing—which they can follow on the tablet:

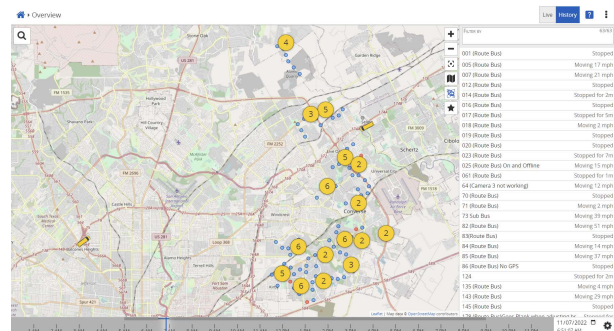


In the Navigation mode, each circle represents when a bus driver gets to a stop.

The driver's CoPilot has two modes:

- **Navigation:** Gives drivers real-time, turn-by-turn directions
- **Stop Management:** Provides drivers with a to-do list of all the students that should get on and off the bus

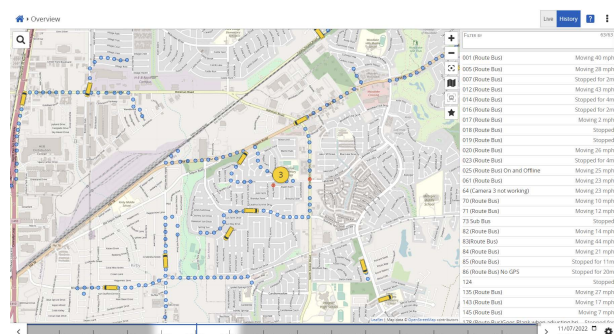
From the Transportant dashboard, users can access the Overview page, which provides a live view of each school bus's location:



Users can hover their cursor over the numbered circles to see bus GPS trails and mph.

Each circle represents the real-time position and number of buses within that particular radius. When zoomed in, the circle disappears, and users will see the individual buses on the map. Users can click on each bus and see details such as the live video, which students are currently on the bus, how long they've been on the bus, who the driver is, and more.

After reviewing the live routes in Transportant, Transportation Directors or dispatchers can go into the TT–R dashboard and edit each bus route accordingly:



Users can view the current, previous, and past routes at any point in history. The blue dots represent individual GPS breadcrumbs.

On the Route Performance page, users can view a bus's stop times and entire route, from start to finish:

– Jeff Shackelford

Base Performance				Run Time MS	Memory Usage MB	Base Time ms	Run Time ms	
Dir	Bin	Test Time	Log Base	Base Scores	Log Time	Base Time	Run Time	
Schedule		5:00:00.000				6:00:00.000		
1/16/2012	300 (Base Run)	6:09:39.490	5:01:20.440					
1/16/2012	300 (Base Run)	6:08:27.580	6:08:27.580					
1/16/2012	300 (Base Run)	1:00:42.760	1:00:42.760					
1/16/2012	300 (Base Run)	5:20:10.760	5:20:10.760					
1/16/2012	300 (Base Run)	5:15:11.760	5:15:11.760					
1/16/2012	300 (Base Run)	5:14:48.160	5:14:48.160					
1/16/2012	300 (Base Run)	5:15:01.000	5:15:01.000					
1/16/2012	300 (Base Run)	7:23:26.000	7:23:26.000					
1/16/2012	300 (Base Run)	5:23:10.000	5:23:10.000					
1/16/2012	300 (Base Run)	5:20:17.000	5:20:17.000					
1/16/2012	300 (Base Run)	5:17:44.000	5:17:44.000					
1/16/2012	300 (Base Run)	5:16:46.000	5:16:46.000					
1/16/2012	300 (Base Run)	5:22:39.000	5:22:39.000					
1/16/2012	300 (Base Run)	5:22:10.000	5:22:10.000					
1/16/2012	300 (Base Run)	4:43:13.000	4:43:13.000					
1/16/2012	300 (Base Run)	5:17:15.000	5:17:15.000					
1/16/2012	300 (Base Run)	5:20:42.000	5:20:42.000					
1/16/2012	300 (Base Run)	5:23:17.000	5:23:17.000					
1/16/2012	300 (Base Run)	5:16:10.000	5:16:10.000					
1/16/2012	300 (Base Run)	5:23:17.000	5:23:17.000					
1/16/2012	300 (Base Run)	5:19:37.000	5:19:37.000					
1/16/2012	300 (Base Run)	5:23:23.000	5:23:23.000					
1/16/2012	300 (Base Run)	7:10:46.000	7:10:46.000					
1/16/2012	300 (Base Run)	5:16:28.000	5:16:28.000					
1/16/2012	300 (Base Run)	5:20:46.000	5:20:46.000					
1/16/2012	300 (Base Run)	5:20:49.000	5:20:49.000					
1/16/2012	300 (Base Run)	5:20:20.000	5:20:20.000					
1/16/2012	300 (Base Run)	5:20:20.000	5:20:20.000					

Instead of working with all these different software systems, customers can narrow it down to two that work seamlessly together.

– Jeff Shackelford

The districts that fully integrate both systems have happier drivers because their routes are planned in TT-R and monitored in real-time in Transportant. By using both systems, users can create more efficient routes, therefore saving fuel cost saving, labor hours, and more.

Customers can use the real-time insights that Transportant provides to improve their routes in TT-R. The **two biggest differences and advantages of TravelTracker-Routing compared to an alternative software system are:**

- 1. Real-time data feedback between the two systems:** Transportant feeds real-time GPS information into Travel Tracker. So, users can see all the discrepancies between planned routes vs. actual ones, such as where the bus driver actually drives, better alternatives for where the stop should be, and more. That is a real opportunity for improvement.
- 2. High-fidelity data export and import:** Most other routing software does not export the actual path of a route. TravelTracker–Routing, however, can export a list of stops, geocodes, and the path that the routing software intends the bus to take between each of those stops with the turn-by-turn directions. So, it's much easier for the school to integrate data between TT–R and CoPilot without having to do any double entry of the routing.

The other benefit is that Transportant automatically updates based on the route changes made in TravelTracker-Routing. So, when users update a route, they can see the actual GPS traces of how the bus has been driven in TT-R. TravelTracker-Routing can also pull in other metadata like the events that happened along the route, such as:

- Which students got on and off at a certain stop
- Photos of each time a student swipes on and off a bus

Student Safety and Driver Accountability with Live Video Feed

Transportant also provides a live video of the entire route built in TravelTracker–Routing. So, users can see what's happening at any time. And every time there's a student swipe event, such as boarding or leaving the bus, Transportant takes a still frame from the video and includes that in the event's metadata.

A lot of school systems have utilized the real-time insights that come from Transportant. For instance, "this route seems slower than it should be. Let me watch the live feed and correspond between what's planned in Travel Tracker versus what I'm actually seeing." This comparison can help schools eliminate or combine unnecessary routes.

"In one example, a school system was able to eliminate nine buses out of 90," states Alan. "So, nine buses, nine drivers, nine routes, aren't driving anymore, which is a big deal to their hiring demands. It reduced their annual costs by roughly \$500,000. So, it's a big improvement in efficiency."

Driver Retention

The other benefit to the school system is driver retention. If you're a school system, you're usually struggling to have enough bus drivers, specifically substitute drivers. Substitute drivers are often very cautious about accepting a route in parts of the city that they are unfamiliar with. A Transportation Director may have a pool of substitute drivers that they can refer to. Yet, each driver will only know a certain portion of the city or will only work in a particular region.

The combination of TravelTracker–Routing and Transportant allows users to generate reliable routes and export the turn-by-turn directions for the route so that the substitute driver gets real-time guidance in the dashboard. "This combination seems to help substitute drivers be more willing to take on additional routes," says Alan. "Additionally, the bus intercom feature makes them feel a lot more supported."

"Most of the data collected in Transportant is accessible to TravelTracker. So, it gives customers a lot more richness to the data that's otherwise not there."

– Alan Fairless



Schedule a demonstration to see if TravelTracker–Routing is the right routing software for your Transportation Department.