



QUESTERTANGENT
Delivering Train Electronics

Intelligent solutions for the rail industry

Quester Tangent is a leading North American supplier of train electronics and software solutions for the rail transit industry. We offer modular and tailored products to rail vehicle manufacturers and transit authorities that enable the efficient movement of people and goods.

Your partner for operational efficiency

For the past 20 years, Quester Tangent has provided the passenger rail and locomotive industries with innovative on-board and wayside electronics and software solutions. Each product we design, manufacture and support helps our customers increase operational efficiency, improve fleet availability, optimize on-time performance, and enhance passenger safety and comfort.

Quester Tangent is a trusted partner of the world's major train manufacturers and transit authorities. We have successfully delivered a broad spectrum of projects on time and on budget in North America, Korea, China, and Malaysia.

We are dedicated to building strong relationships with our customers. We develop solutions for the growing business needs of rail transit authorities and rolling stock manufacturers that effectively address four key areas:

- » **Reliability:** Industrially hardened, robust electronics ideal for harsh operating environments and compliant with stringent rail industry requirements.
- » **Adaptability:** Comprehensive, flexible solutions that integrate and communicate with other subsystems.
- » **Responsiveness:** Real-time information provided in formats relevant to operations and maintenance personnel to enhance decision-making capabilities.
- » **Efficiency:** Instant access to pertinent data to determine fleet status and operational readiness, using on-train displays and web-based applications.





Flexible, modular and scalable solutions for the rail industry

Quester Tangent is an expert at solving business problems. Today, our products are known for their superior reliability that draws on our service-proven designs and new technology integration.

Our on-board and wayside turnkey solutions integrate in-depth engineering expertise, manufacturing capacity and revenue service track record, all with a commitment to deliver projects on time and on budget.

To address our customers' distinctive requirements for both new and modernization projects, we provide **TrainWise**, flexible on-board train and locomotive electronics, **FleetWise**, innovative wayside software and **TestWise**, comprehensive test equipment products.

TRAINWISE
Powered by QuesterTangent

A comprehensive suite of on-board train electronics that enables efficient revenue service operations and maintenance management. TrainWise provides a fully-integrated suite of monitoring, diagnostic and control products, event recorders, on-board trainline and wireless network communications, passenger information systems, and CCTV products.

FLEETWISE
Powered by QuesterTangent

Wayside software that provides superior fleet performance by collecting, storing and analyzing fleet operational and maintenance data. FleetWise offers real-time fleet readiness information, enhanced software management, proactive maintenance, and in-depth diagnostic tools.

TESTWISE
Powered by QuesterTangent

Electronic test equipment and training aids that facilitate rapid troubleshooting during on-train or shop maintenance. TestWise products provide the detailed level of information required by maintenance staff to keep trains running.

We enable smart decisions

Learn how our fully-integrated rail transit offerings are specifically designed to provide you with the right data to make quick and insightful decisions during your day-your-day operations.



Measure

Monitor and measure your analog and digital signals on board your trains using **TrainWise** I/O modules and logic controller units.



Collect

Centralize management of your on-board data using **TrainWise** monitoring, diagnostic and control systems.



Inform

Update operators and maintainers on the status and fault conditions of your trains using **TrainWise** touchscreen displays.



Communicate

Link your fleet to the wayside using secure **TrainWise** wireless data links.



Track

Monitor the location, activity and status of all your trains using **FleetWise** wayside monitoring systems.



Analyze

Access real-time and historic data from your entire fleet using **FleetWise** to find faults faster and predict problems before they happen.



Report

Create concise reports of your train status using **TrainWise** and **FleetWise** web-based visualization tools.



Decide

Make better decisions and minimize your downtime using fully-integrated solutions: **TrainWise**, **FleetWise** and **TestWise**.





Why work with Quester Tangent?

A wealth of experience at your service

Quester Tangent has more than 20 years of successful experience in delivering modular engineered solutions, building flexible products, creating detailed project documentation, and managing a broad spectrum of projects.

We stand behind our products

Our **2/20/40 life cycle support** program maximizes the useful life of our products, reduces the total cost of ownership for our customers, and meets rail industry needs.

Active warranty: 2+ years support for product delivered with a new contract.

Extended support: 20+ years support past the active warranty. We continually monitor end-of-life status of our installed products to support your vehicles into mid-life.

Modernization support: 40+ years support to maintain, upgrade or renew functionality of our product offerings.

We are only satisfied when you are

As your one-stop shop for train electronics, we excel at meeting our contract requirements on time and on budget. Our state-of-the-art facilities and coordinated processes allow our engineering, manufacturing and project management team to deliver efficiently while adhering to the highest standards.

We facilitate collaboration

We work closely with our customers and suppliers in the design and development of our products. This enables tailored development stages and manufacturing activities, making us incredibly adaptive, responsive, and innovative.

Your full-service supplier

We offer a complete portfolio of capabilities and services:

- » System integration
- » Project management
- » Custom engineering
- » Manufacturing
- » Maintenance and warranty support
- » Customer service
- » Training

Technology highlights



New Jersey Transit (NJT)

New Jersey, USA

TrainWise: Vehicle system monitoring, control and diagnostics for train management. TCN-WTB train network and LonWorks vehicle network communications and data acquisition. Operator and maintenance displays, ground fault detection, wireless wayside communications, maintenance information processing, logging, and fault control.

TestWise: Bench test equipment.



New York City Transit Authority (NYCT)

New York, USA

TrainWise: Monitoring and diagnostics functionality. Circuit breaker monitoring, information transfer to monitoring and diagnostic system, control of subsystems such as windshield wipers, headlight and tail light controllers. **TestWise:** Bench and portable test equipment.



Washington Metropolitan Area Transit Authority (WMATA)

Washington, DC, USA

TrainWise: Train-to-wayside data transfer system consisting of a train radio unit and antennas. **FleetWise:** Wayside software for fleet and train data management, real-time system status, maintenance information, stored and live video viewing, and data processing. **TestWise:** Portable test equipment.



SkyTrain / BCRTC

Vancouver, BC, Canada



Rapid Rail (KL)

Kuala Lumpur, Malaysia



TrainWise: Network and trainline monitoring and diagnostics, LonWorks vehicle network management, operator fault display, and fault data logging. Brake assurance monitor system. Health monitoring unit, ground fault detection, battery monitoring, and vehicle training simulator (SkyTrain/BCRTC only). **TestWise:** Bench and portable test equipment.



Metropolitan Atlanta Rapid Transit Authority (MARTA)

Atlanta, USA

TrainWise: Monitoring, control and diagnostics of vehicle subsystems. Ethernet and RS-485 vehicle network communications and data acquisition, wireless wayside communications, maintenance information processing, logging, and fault control. Anti-glare touchscreen. **TestWise:** Bench and portable test equipment.



South East Pennsylvania Transit Authority (SEPTA)

Philadelphia, USA

TrainWise: Network and trainline monitoring and diagnostics, touchscreen display for maintenance, vehicle network management, operator fault display, fault data logging, headlight and auxiliary light controllers, door controller power supply, and windshield wiper power supply. **TestWise:** Bench and portable test equipment.



Massachusetts Bay Transportation Authority (MBTA)

Boston, USA

TrainWise: Powerline train network communications and management, automatic detection/reporting of cars in the train. Operator displays for monitoring of train and vehicle systems, LonWorks vehicle network management, trainline data acquisition, and trainline fault control. Circuit breaker monitoring, battery monitoring, ground fault detection, headlight and auxiliary light controllers, and wireless wayside communications. Passenger announcement/intercom. **TestWise:** Portable test equipment.

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Quester Tangent is registered to ISO 9001:2008, CMMI Level 2 SCAMPI A ready.