QUALIFIER

Automated Data Acquisition & Analysis

Revolutionize
Validation Testing &
Launch With Confidence

CONTROLTEC®

UNLOCKING THE POWER OF DATA
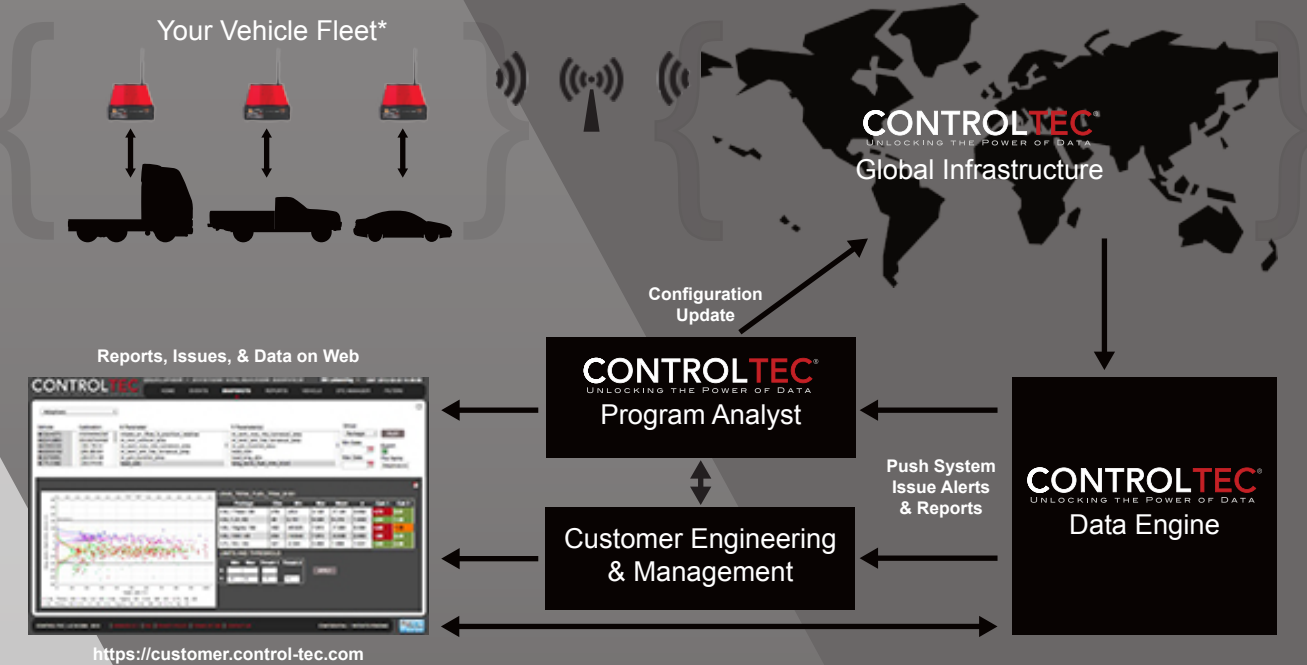
VALIDATION 2.0

Stop waiting for this... 🔴 CHECK

Start measuring performance.

⟵ Pass ⟶ | ⟵ Fail ⟶

CONTROLTEC® is leveraging 21st century technologies to enable customers to launch quality systems by improving reactive processes and providing proactive measures to identify poorly performing subsystems prior to launch. Qualifier® features automated data download via Cell / WiFi, automated data processing, remote data logger configuration update, issue notifications via SMS & Email, automated reports, embedded analysis tools on the web to enable enterprise collaboration and much more.

Your Vehicle Fleet*

CONTROLTEC
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Global Infrastructure

Configuration Update

Reports, Issues, & Data on Web

CONTROLTEC®
Unlocking the Power of Data
Program Analyst

CONTROLTEC®
Unlocking the Power of Data
Data Engine

Push System Issue Alerts & Reports

Customer Engineering & Management

https://customer.control-tec.com

* Full Qualifier® experience available with CT ® Hardware. Non-CT® data loggers are supported to varying degrees of functionality.

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Unlocking the Power of Data

UNLOCKING THE POWER OF DATA

Advanced analytics provide insights into JD Power performance and quality thereby maximizing the value of your testing.
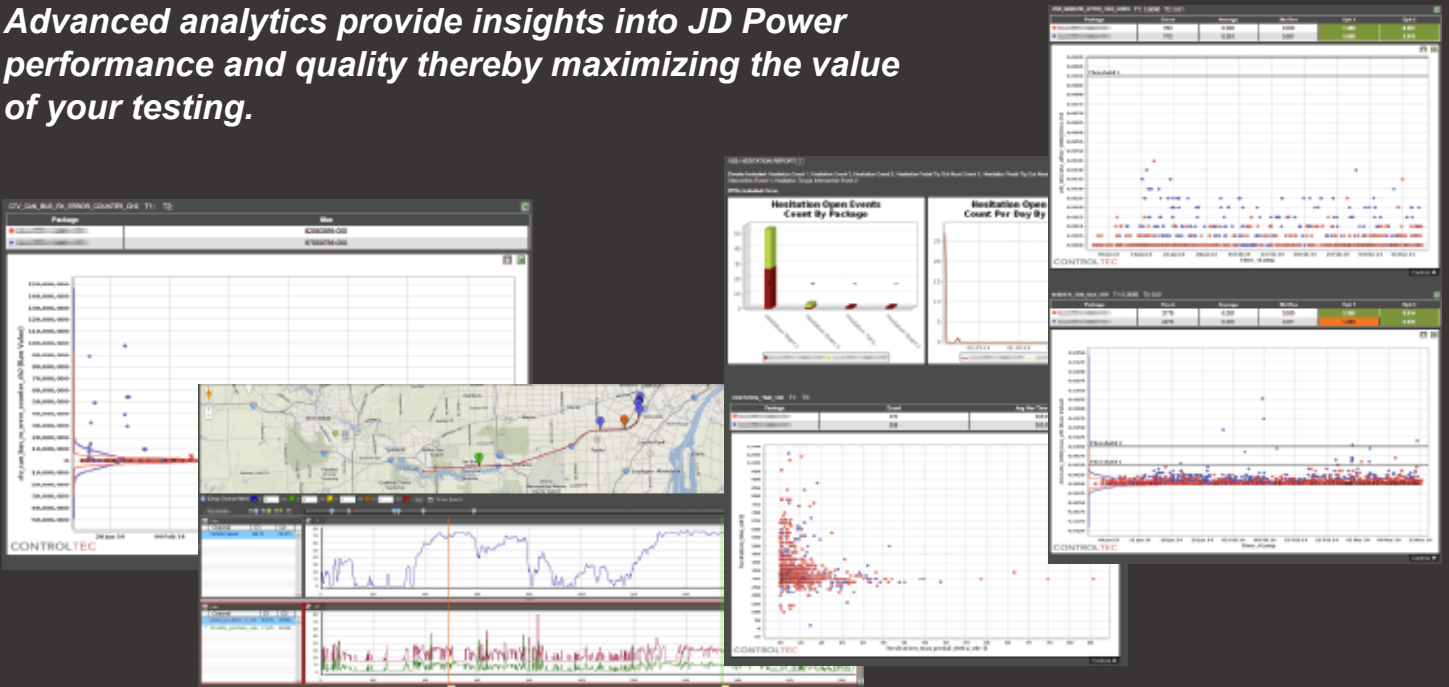
CONTROLTEC®'s Qualifier® platform provides a comprehensive data management and analytics solution for your testing.

- Fleet management with geolocation features.
- Issue management with real time notifications and report subscriptions.
- Automated analytics to assess the performance of a given subsystem, metrics include: min, max, average, standard deviation, variance, count of values in/out of a specified range, Cpk, C/1000 vehicles, C/12,000 miles, and all data can be filtered on multiple parameters.
- Time based analysis of captured data with CT-Graph® featuring links to all data captured during event/trip with maps, statistics, histograms, calculated signals, graph templates, and more.
- Hardware/software part number tracking of all modules ensure quality test miles.
- Data accessible worldwide, 24/7.
- Fully relational database for in-depth analysis.
- Test thresholds by comparing vehicles, calibrations, and much more.

ISSUE MANAGEMENT

Issues captured by Qualifier® are automatically managed with the following features:

• Data consolidation to quickly provide issue scope: who, what, where and when.
• Quick access to the data to determine why and how.
• Issue status control with issue assignment.
• Issue data management including user comments.
• Event frequency analysis.
• Event statistics including freeze frame snapshot data.
• Email & SMS Notifications.
• Triage issues with event freeze frame analysis.
• Root cause issues with data captured at time of issue occurrence, including full CAN bus log.

Real Time Trigger Notifications

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ROOT CAUSE ANALYSIS
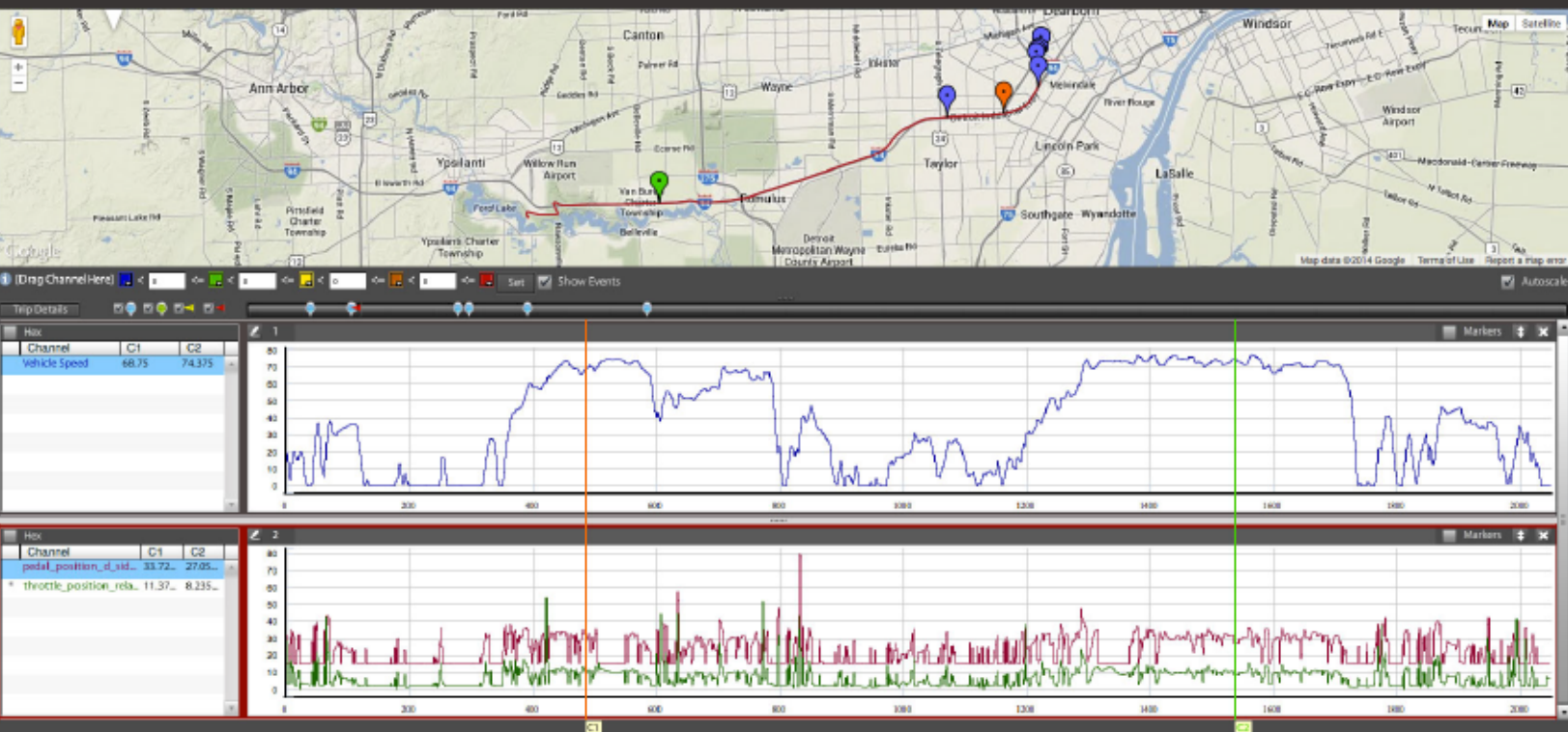
Data analysis does not need to be difficult due to time wasted manipulating files to work with your company's analysis tools. CT-Graph® is a time based graphing tool embedded within Qualifier® that enables quick and in depth analysis.

Histogram
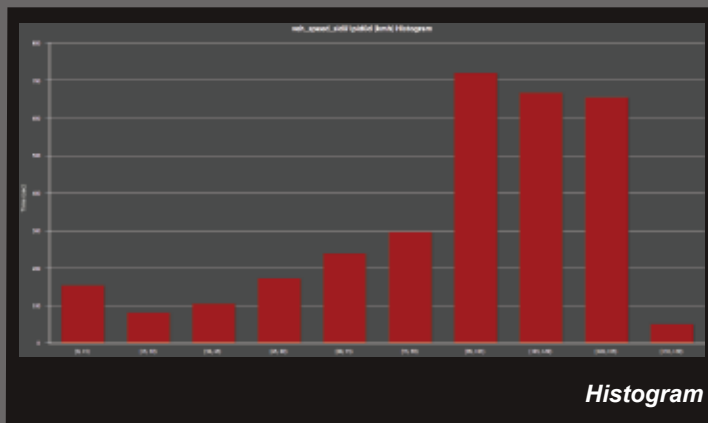
Features include:

- Easy plotting with drag and drop charting and intuitive user interface
- All data sources integrated into one file
- Templates for automatic plotting and collaboration
- Export only desired data
- Synthetic variables, histograms and GPS
- Parameter statistics
- Print or share PDF

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ASSET MANAGEMENT

Asset Tracking with Live Data and Trip Statistics

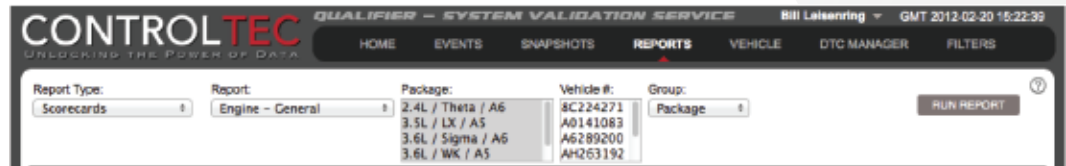## Maximize test efficiency by knowing the status of your fleet at all times.

Qualifier® tracks vehicle location and VDR status, provides live data and trip by trip test data to ensure test compliance and understand customer usage.

Fleet Location

Trip by Trip Data

REPORTING

Scorecard Report

In Use Performance

Quickly and easily determine the performance of your subsystems and status of your fleet by utilizing Qualifier®'s built-in reporting platform.

Features include:
- Scorecards featuring several metrics such as Cpk, average, standard deviation, counts based on data filters, i.e. number of time misfire count > 20, etc.
- Status reports including pareto charts overall and by subsystem, vehicle status, vehicle hardware and software history, and more
- Subsystem detail reports with subsystem event paretos and performance metrics
- Subscribe to reports to be delivered automatically via email at a specified interval
- Share reports via PDF

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VEHICLE & POWERTRAIN

Comprehensive DAQ solution that provides solutions for electrical and powertrain teams wthout compromise.

No longer a powertrain only solution, CONTROLTEC® provides a data acquisition solution for non-powertrain groups with features including:

- Complete CAN traffic history for life of vehicle testing

- Live DTC monitoring of all ECUs on the monitored networks

- CAN log with pre/post trigger data in .asc format with error frames and microsecond precision

- ECU part number tracking for all ECUs on the monitored networks

- CAN bus performance metrics on up to (7) CAN networks

- Record CAN traffic at bus wake

- All this and powertrain too: custom DAQ software for JD Power assessment and analytics for robustness assessment, surgical data acquisition with sophisticated trigger and synthetical variable logic

- CAN logs compatible with Vector CANAlyzer and Intrepid Vspy

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DATA ACQUISITION

Robust data acquisition featuring patent pending Smart Configuration Management ensures you get the right data you need all the time.

Core DAQ Features:

- Dynamic Configuration
- Custom Rasters
- Snapshots – Event based
- Snapshots – Time based
- 'Soft Fails'
- Synthetics
- Analogs
- CAN data including error frames
- CAN History
- Statistics
- Histograms
- GPS
- Manual Trigger

- In Use Performance Ratios
- J1979 Legislative
- J1939 Legislative
- Adaptive Surfaces
- Complex Event Triggers
- Enhanced PIDs
- Customer correlation data
- Data logs for trip data, DPF Regen, etc.
- A2L, DBC, MDX, ODX
- Vehicle wide HW/SW
- Vehicle wide DTC Monitoring
- Remote configuration update – one to many
- Power management with wake on CAN

Custom DAQ Features:

CT provides several custom features and can also add features to meet your needs, contact CT for details. Examples of algorithms deployed by CT are:

- Idle Quality
- Engine Start
- DTC Manager
- DPF Regen
- Engine Stall

- Engine Hesitation
- Transmission Shift Quality
- Vehicle Usage
- Fuel Economy
- Stop Start

Protocols Supported:

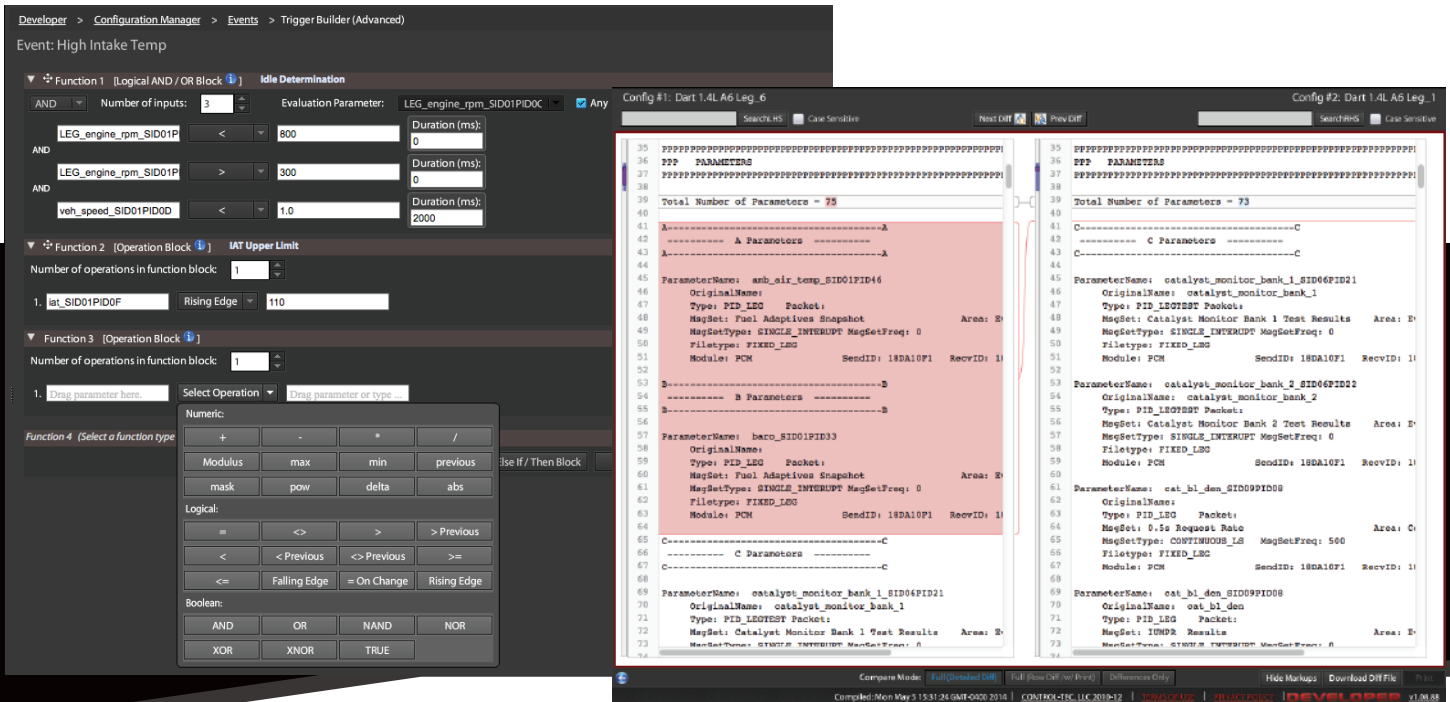ISO-14229, ISO-15765, ISO-15031,GMLAN, CCP, XCP
SAE J1979 / J1939 / J1708 / RP1210

Hardware Options:

- CT-1000® and CT-200, lease and purchase options available
- Intrepid NeoVI Ion

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DEVELOPER

Advanced DAQ configuration software lets you get the data you need when you want it.

CONTROLTEC®'s surgical data acquisition methods are managed with Developer. In addition, Developer also is setup to enable VDR asset and configuration management for your test fleets. Features include:

• NEW advanced trigger builder makes it easier to build more comprehensive triggers and synthetic variables.

• NEW device setup enables user setup of analog inputs to the VDR.

• Work flow tools such as VDR Manager, Config Groups and Config Compare ensures DAQ quality.

• Supports the following DAQ methods: CAN Broadcast, CCP, XCP, ISO-15765, ISO-14229, J1939, J1979 and J2534

• Supports .a2l, .dbc, .mdx, .odx and SAE J1979 legislative PIDs input files.

• Continuous performance improvements to let you spend less time in setup and more time in data analysis.

• Remotely deploy configurations to VDR(s) anywhere in the world.

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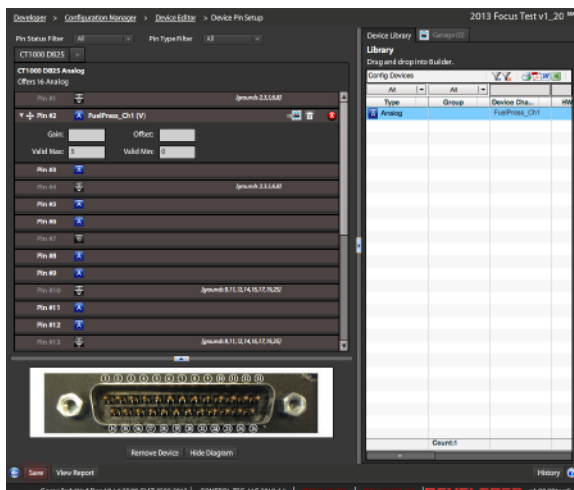
CT-DASH™

In-vehicle companion to enhance the CT® experience.
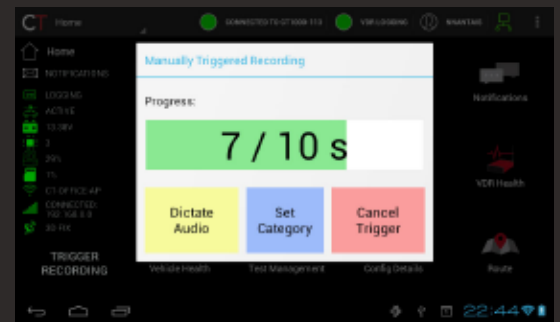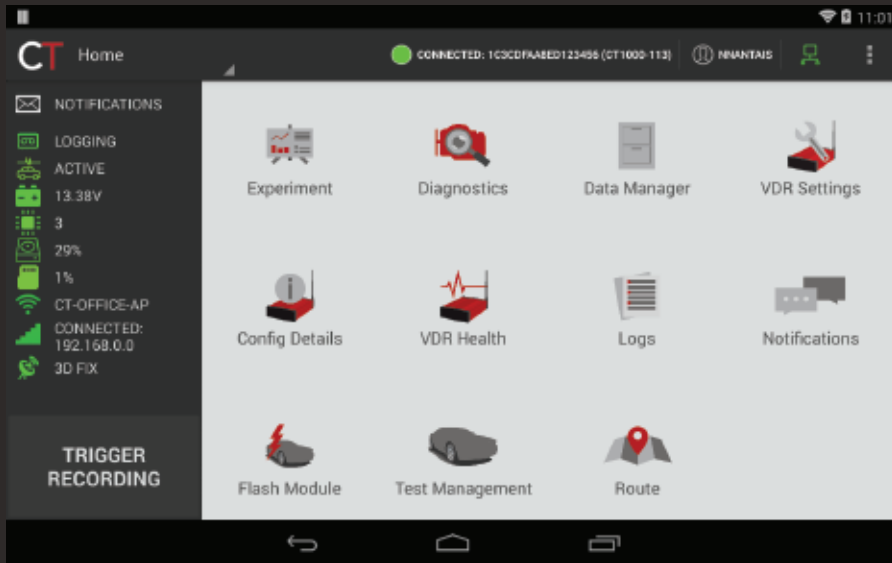
CT-Dash™ is powered by CONTROLTEC®'s Mercury technology which provides a connection to your test vehicle in the car as well as via Qualifier®.
Features include:

- Mercury provides two-way data connection to any online VDR in the world

- In-vehicle display of live data and diagnostic functions including reading/clearing DTCs and ECU flashing

- Driver tool with electronic drive evaluation sheets that feed back-office database

- More efficient in-vehicle package with manual trigger and GPS provided by tablet

- Electronic 'manual trigger' with event classification and audio/visual feedback to Qualifier®

- Messaging system to provide drivers with messages and instructions

- Access VDR data and adjust upload priority to Qualifier®

- Compatible with CT-1000®

- Localization included to support multiple languages
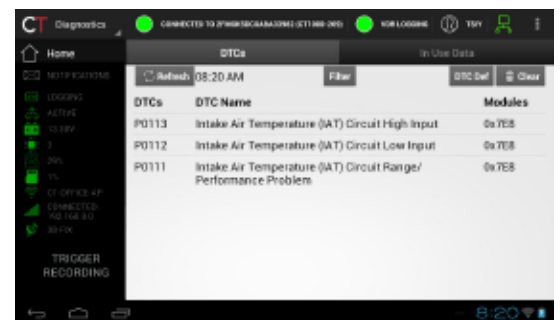
QUALIFIER FEATURES

		Stand Alone	Lite	Pro
CONFIGURE	Configuration Development	X	X	X
	Remote Data Download	X	X	X
	Remote Configuration Update		X	X
	Configuration Hosting and Sharing		X	X
	Custom DAQ Features			X
	Smart Config Management			X
PROCESSING & MANAGEMENT	Data Conversion - Manual / Local	X		
	Data Conversion - Automatic / Web		X	X
	Data Hosting		X	X
	File Management System		X	X
	DTC Manager			X
	Relational Architecture			X
ANALYSIS & REPORTING	Google Maps Integration			X
	Graphical Time Based Data Viewer			X
	Relational Analysis Methods			X
	Statistical Assessment Capability			X
	Automated Reporting			X
	Event Notifications			X
	Fleet Management			X
	Issue Management			X
	Vehicle Wide Software Tracking			X

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