ER ANALYZER™

For analyzing derailment and break-in-two incidents of all magnitudes.

We're putting science behind the analysis.

Eliminate Guesswork

ER Analyzer eliminates traditional guesswork and what-if approaches replacing it with quality, data driven decisions about consist design.

Overview

Get answers fast and prevent future incidents.

ER Analyzer™ exposes **previously unknown in-train forces** that have led to derailments. Once identified, those train placement practices can be changed, preventing similar derailments and related safety issues from happening again.

The ability to **run the ER Analyzer immediately following an event**, coupled with getting results the same day, significantly enhances railroad safety.

Clean

No waiting for middle men or third party vendors to put your data into action. You enter your consist and track data, ER Analyzer does the rest. And, you get results that even non-derailment specialist can use.

Simple

ER Analyzer's simple 3-step workflow means that non-technical users with access to the data can start the process. A short time later, you have the results you need to make intelligent decisions and corrective action.

Affordable

Quickly understanding what happened means you can better control future outcomes. ER Analyzer turns you data into actionable intelligence that saves money. Improving consist design is a start.

"...once we identified those (consist derailment) conditions, we immediately changed our train placement practices..."

E·R ANALYZER
DIAGNOSTIC RECONSTRUCTION

Get Actionable Intelligence.
Make informed changes.

"Our TMS provides guidelines for good train builds, but it's based on best practices. E•R Analyzer provides a window into whether we did everything right, but still exceeded in-train-forces anyhow."

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ENTERPRISE DETAILS DONE WELL ▪

E R ANALYZER
DIAGNOSTIC RECONSTRUCTION

It's now possible to recreate the target train run 40x faster than real time.
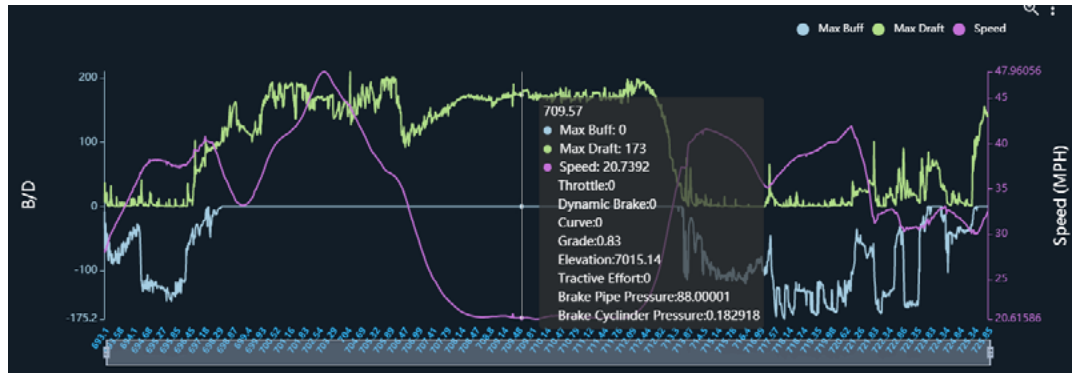
Analysis Dashboard

All reports can be customized by users to included the information or distances most important to them. ER Analyzer has been designed to prevent needless information overload.

- **Run Summary**: Before getting into the details, users can easily get an overview of the incident being recreated. These areas include: Run Time, Max Speed, Fuel Burn, Miles Traveled, Train Weight and Train Length. This information can be customized and can include other items like power configuration, number of cushion couplers involved and more.

- **Route**: This displays a map of the area being analyzed and the route of the train involved.

- **Heat Map**: This visual heat map displays Buff and Draft information for every car in the train for every second of the run. The color red indicates cars Buffing (coming together) and the green shows the cars drafting (pulling against each other). Green or red is neither good nor bad, but this allows viewers to easily see when an abundance of one or the other is present.

- **Throttles**: This displays throttle notch locations for each locomotive in the consist.

- **Force Graph**: This component lets users deep dive into every car in the train and quickly identify which cars were experiencing forces out of tolerance for safe operations.

- **Track Profile**: Here, the elevation (slope) of the track is mapped against the curves in the route. With this co-located information, viewer can bet a better feel for the route and where increasing stress on consists can be expected.

- **Max Buff/Draft with Speed**: It is easy to pinpoint incidents using this graph and specifically see how far the in-train forces exceed equipment abilities or operational parameters.
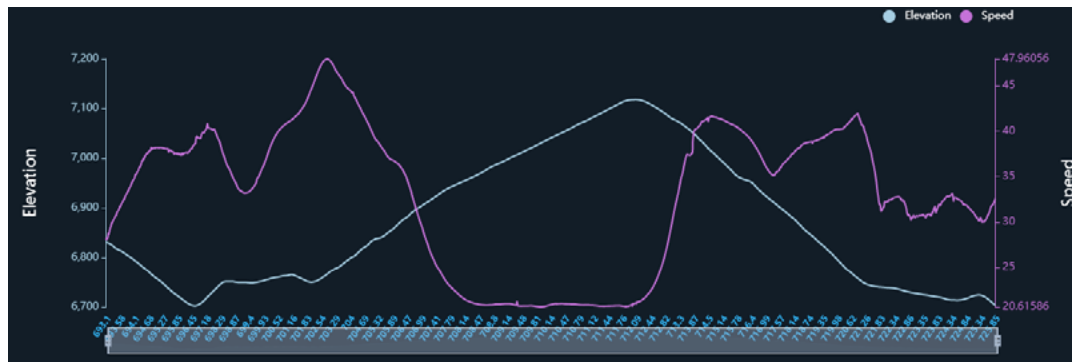
Users can customize what they want to see. Want to only match brake pipe pressure against speed? Not a problem.
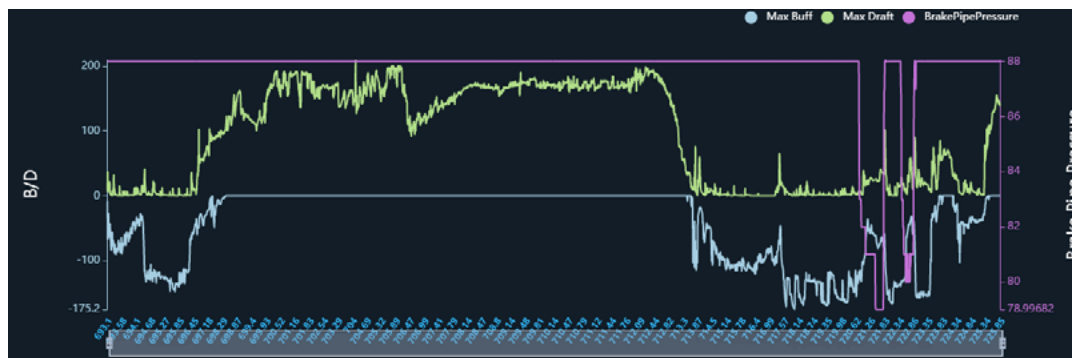
TOP

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Buff/Draft with speed – Compare the changes in in-train forces versus speed. Did train accelerate to fast causing high draft? Did train slow to quickly causing high buff?

Compare Speed vs elevation to see the relationship between the two values.

Buff/draft vs Brake Pipe Pressure – Determine if any braking events caused your in train forces to spike.

What advantages do customizable reports give you?

ER Analyzer uses physical analysis to reveal things like in-train energy spikes that can cause over-stress on couplers and train behaviors. ER Analyzer then shows you where in the train, down to the exact car, where the problem was.

Taking the guesswork out of where the problem occurred and then quantifiably identifying what happened lets railroads change operating practices and prevent future occurrences of the same event – but with certainty.

The combination of manifest trains, increasing train length and rolling terrain mean that unknown train handling and equipment behavior is becoming the norm.

Common-sense Customization

The ER Analyzer dashboard is clear and easy to understand. Very little hands-on learning is required to master it and create meaningful reports for different stakeholders.

TOP

The ER Analyzer Dashboard

- Simple graphic information
- Understandable for non-specialists
- Standard and repeatable workflow
- Quickly get meaningful insights

Reports Available

- Speed
- Buff/draft
- Throttle
- Tractive Effort
- Dynamic Brake
- Brake Pipe Pressure
- Brake Cylinder Pressure
- Elevation
- Curve
- Grade
- L/V

Want to see a demo?

Click Here.

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TOP

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