DistributedPower™

Overview

Reduce Risk.
Increase Safety.

Eliminate Guesswork

Perfect practice makes perfect. Train your engineers in the best methods and then practice them.

Putting science behind the training.

Protecting engineers operating long trains with dynamic in-train forces can now be done with realistic simulation and world-class training materials.

PST's DistributedPower™ Training utilizes its incredibly accurate physics simulation engine which calculates forces down to the individual rail truck during the training. This simulation fidelity allows engineers to safely learn the actual operation of long trains over rolling terrain without any real-world consequences.
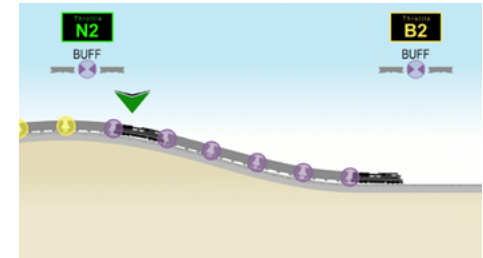
But, before the simulated runs are practiced, the trainees are introduced to the concepts, terminology and best-practices with guided training and animations. The training isn't theoretical. It's down-to-earth in it's approach and explained extremely clearly with visual aids and professionally created animations to make sure that everything is clear.

Distributed Power Training can be done on:
- Full-size PST Simulator Stands
- Portable simulators that can be rented or purchased

Distributed Power Training includes:
- Approximately 8 hours of training and practice
- 5 modules covering basics-to-complex understanding
- Integration into LMS systems if needed.

With PSR driven longer unit and manifest trains, service interruptions caused by break-in-twos or in-train force caused derailments have brought an even greater focus to prevention. PS Technology has created a way to leverage existing railroad train data into usable training that provides a better understanding of safe operations to engineers.

Distributed Power™

Key Features and Benefits

"This Distributed Power training captures what's been missing in engineer training: highly specific lessons, re-enforced learning, and the ability to practice the "book" knowledge."

Re-enforced Learning

Features
- 5 Modules to thoroughly cover all aspects of DP operation
- Class I derived curriculum and best practices
- Knowledge checks after each concept is introduced
- Variety of presentation and testing formats
- Final quizzing for each module
- Capability for Learning Management System (LMS) integration

Benefits
- Keeps students engaged
- Students can proceed at their own pace, but can't skip ahead without demonstrating knowledge achieved
- Automatic record-keeping

Animated Concepts

Features
- Clear, understandable depictions of complex operations and forces such as asynchronous power and End of Train Cushion Couplers
- Can easily be stopped or replayed to maximize students ability to learn

Benefits
- Visual and audio re-enforce and highlight important information that can easily be overlooked
- Professionally created animations enable clear learning and understanding without visual clutter or reliance on static imagery

Realistic Simulation Practice

Features
- Virtual instructor helps engineer practice what they've just learned
- Detailed train physics working behind the scenes to reproduce realistic in-train forces
- Scenarios for all critical engineer operations such as:
  » Establishing DP Link
  » Fencing
  » Brake Test
  » Bump Test
  » Starting & stopping on up-grades, down-grades and crested hills

Benefits
- Improved safety
- No locomotive equipment costs or OJT needed
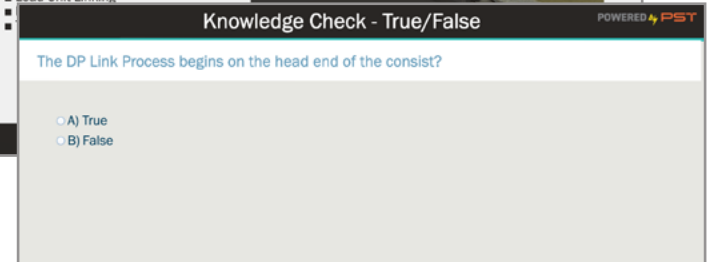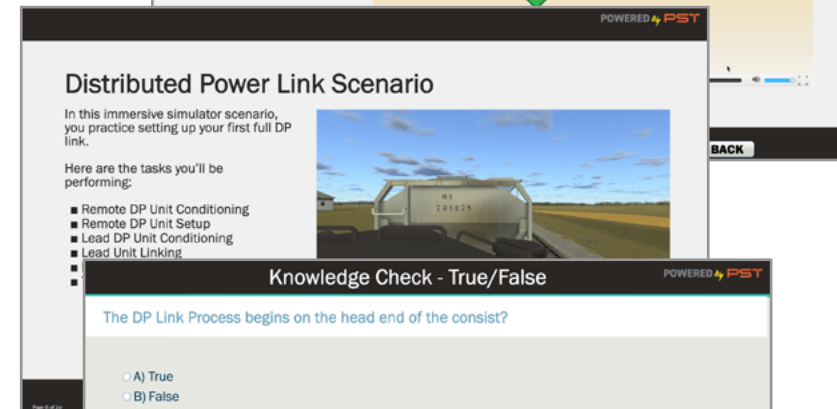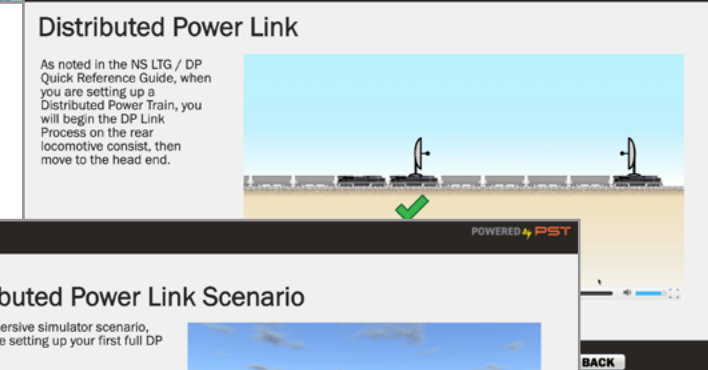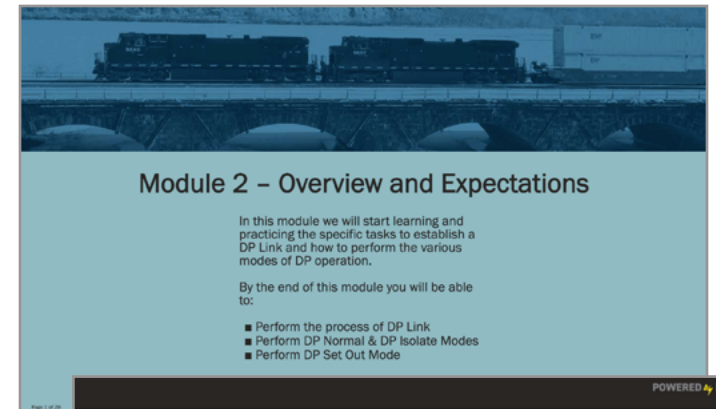- In addition to classroom knowledge, adds muscle memory for processes

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Included Modules

All modules use a guided training approach: material is presented and then immediately following is a Knowledge Check which can't be failed. If trainees get an answer wrong, they are coached to the correct answer and then asked to answer again. However, each module has a quiz at the end which captures what the trainees have learned. They must pass to advance to the next module. Records are kept and can be integrated to an LMS system.

- **Module 1:** DP intro and course expectations for knowledge when complete
    - » Define the process of DP Link
    - » Define DP Locomotive Placement
    - » Define Asynchronous Control
    - » Highlight Safety Tests for DP operation
- **Module 2:** Familiarization with processes
    - » Perform the process of DP Link
    - » Perform DP Normal & DP Isolate Modes
    - » Perform DP Set Out Mode
- **Module 3:** DP operation
    - » DP train handling best practices
    - » Train handling concepts
    - » Sim training for all safety checks plus starting/stopping on grades and hill crests
- **Module 4:** Handling communications interruptions during DP operation
    - » Define common communication exceptions that may be experienced during DP operation
    - » Highlight basic handling techniques for these communication exceptions
- **Module 5:** Recap of previous 4 modules
    - » Review of the most critical parts of earlier lessons. No new content
    - » Final Quiz

Module 2 – Overview and Expectations

In this module we will start learning and practicing the specific tasks to establish a DP Link and how to perform the various modes of DP operation.

By the end of this module you will be able to:

- Perform the process of DP Link
- Perform DP Normal & DP Isolate Modes
- Perform DP Set Out Mode

Distributed Power Link

As noted in the NS LTG / DP Quick Reference Guide, when you are setting up a Distributed Power Train, you will begin the DP Link Process on the rear locomotive consist, then move to the head end.

Distributed Power Link Scenario

In this immersive simulator scenario, you practice setting up your first full DP link.

Here are the tasks you'll be performing:

- Remote DP Unit Conditioning
- Remote DP Unit Setup
- Lead DP Unit Conditioning
- Lead Unit Linking

Knowledge Check - True/False

The DP Link Process begins on the head end of the consist?

- ○ A) True
- ○ B) False

The self-guided nature of the training lets students progress at their own rate of learning. The course is 6-8 hours depending on the student.

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DP Training

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

Additional Notes

- On-screen instructional lessons for using touch screen locomotive controls
- Can be customized to specific railroads
- Can be utilized by current PST customers that have working simulators

Want to see a demo?
Click Here.

DistributedPower™

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