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online training for the asphalt pavement industry
George White
www.paviasystems.com

Online Training for the Asphalt Pavement Industry

- The triple convergence
  - Education
  - Industry
  - Technology

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Types of Education

- Formal
  - Subject matter expert driven
  - Prepared prior to delivery
  - Delivered in a variety of ways, including:
    - physical classroom
    - virtual online classroom
    - video conferencing
- Informal
  - Self learning
  - Peer-to-peer or on the job

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Industry Snapshot

- Employs over 300,000 persons directly
- Supports over 600,000 people in related fields (equip. manufacturing, gov't agencies, etc)
- Growing demands for accountability
  - Design / Build
  - Design / Build / Maintain
  - Warranties
- New equipment, practices and procedures
- Seasonal personnel and operators

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The Importance of Training

- Informed, skillful people are the cornerstone for successful business
  - Adapt to industry growth and change
  - Differentiate your company or agency
  - Solve problems effectively
  - Increase quality
  - Increase productivity

Paving in Ballard, circa 1900
from UW Libraries NW Collection

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Productivity and Beer?

- Miller Brewing Company – Trenton, Ohio
- Implemented new training program for workers
- Now produces 50% more beer than any other facility

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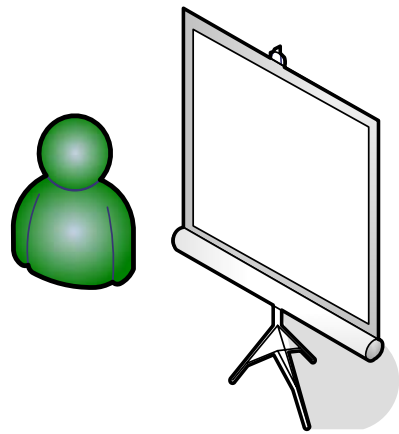
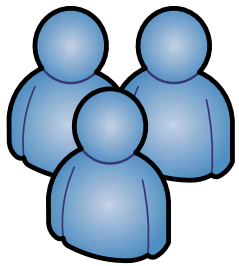
How We Typically Train

- Classroom Training
  - Short courses
  - Seminars
  - Conferences
- Limitations
  - Location requirement
  - Time requirement
  - Size constraint





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How We Typically Train

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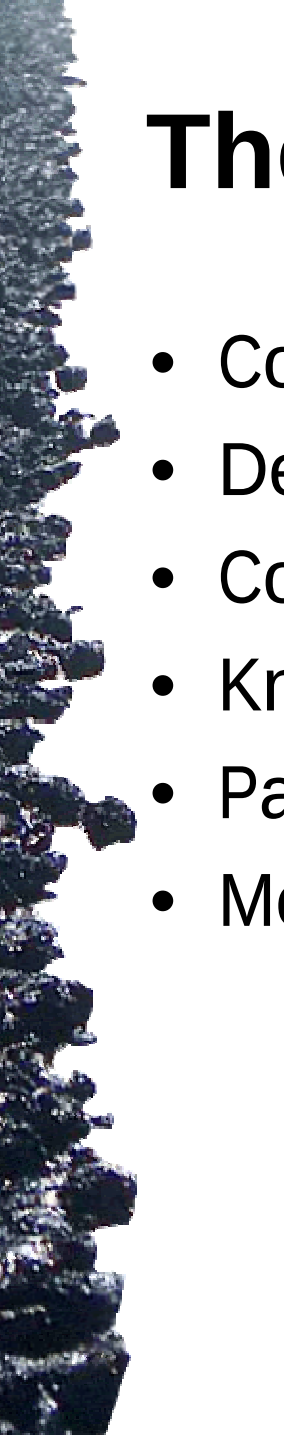
The Challenge of Training

- Content Quality
- Delivery
- Cost
- Knowledge Retention
- Participant Accountability
- Measuring ROI



What is Online Training?

- A type of formal training
- Sometimes referred to as:
  - E-Learning
  - Online Learning
- Delivered via the Internet
- Only requires browser
- Available anytime, anywhere

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Benefits of Online Training

- Typically requires 40 to 60% less time than similar content delivered in a classroom setting
- Equivalent effectiveness
- Readily and quickly distributed throughout a company or agency
- Consistent message
- Ease of updating
- Removes time and location requirement
- Reduces the overall cost of training

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Methods of Online Training

- Self Directed Learning
- Guided Learning
- Blended Learning

Self Directed Learning

- Learn at your own pace
- Interactive multimedia experience
- Cross references and linking
- “Just-in-time” training
- Searchable reference
- Delivery through a web-based interface

Guided Learning

- Participant is led through material
- Typically audio or video to lead the participant
- Usually fixed time length
- Fixed navigation path

Blended Learning

- Combination of Online and Classroom
- Participants come to class with basic knowledge and can spend time solving problems
- More effective use of training instructors
- Classroom time is invaluable!

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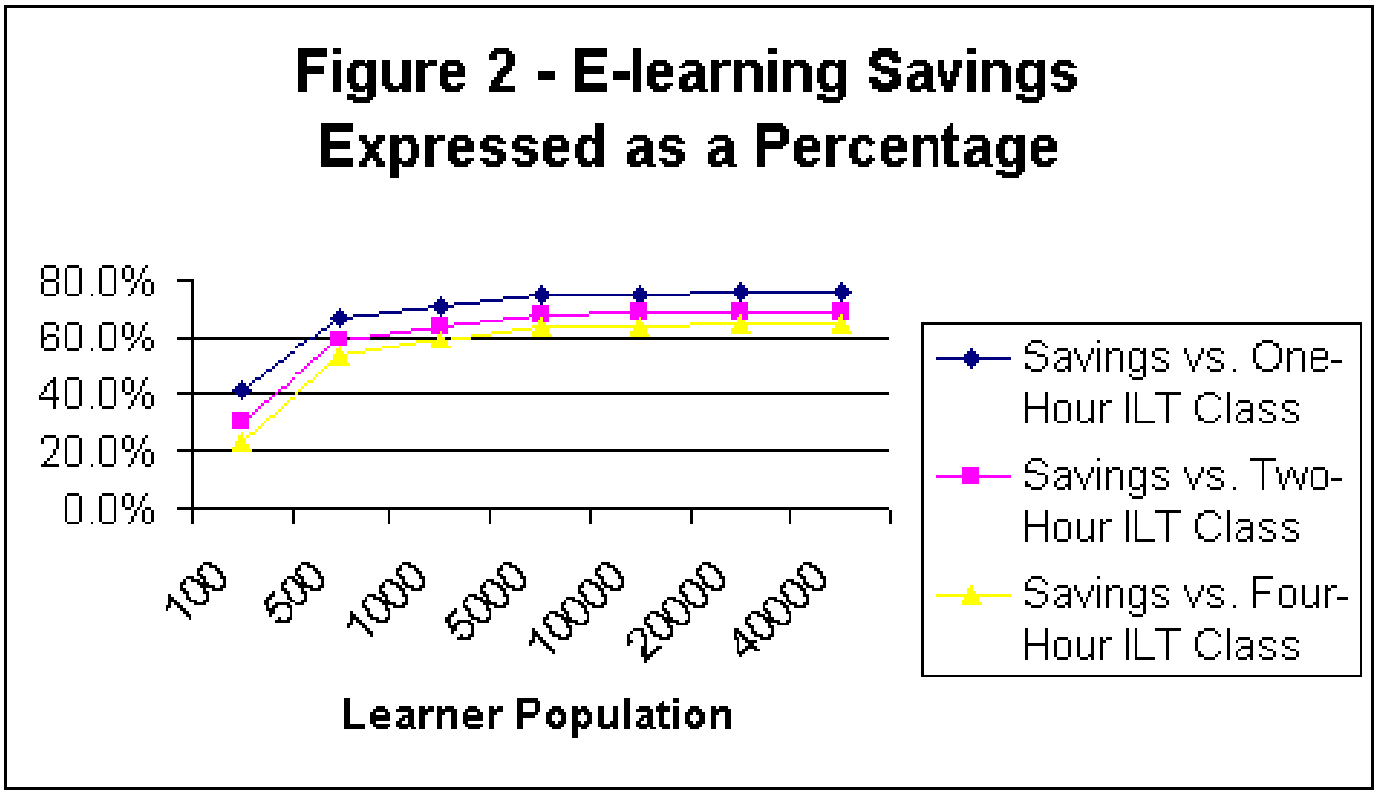
Case Study: Caterpillar

- Examined their internal cost to deliver traditional vs. online training



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Online Training for the Asphalt Pavement Industry

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  - Education
  - Industry
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Who are we?

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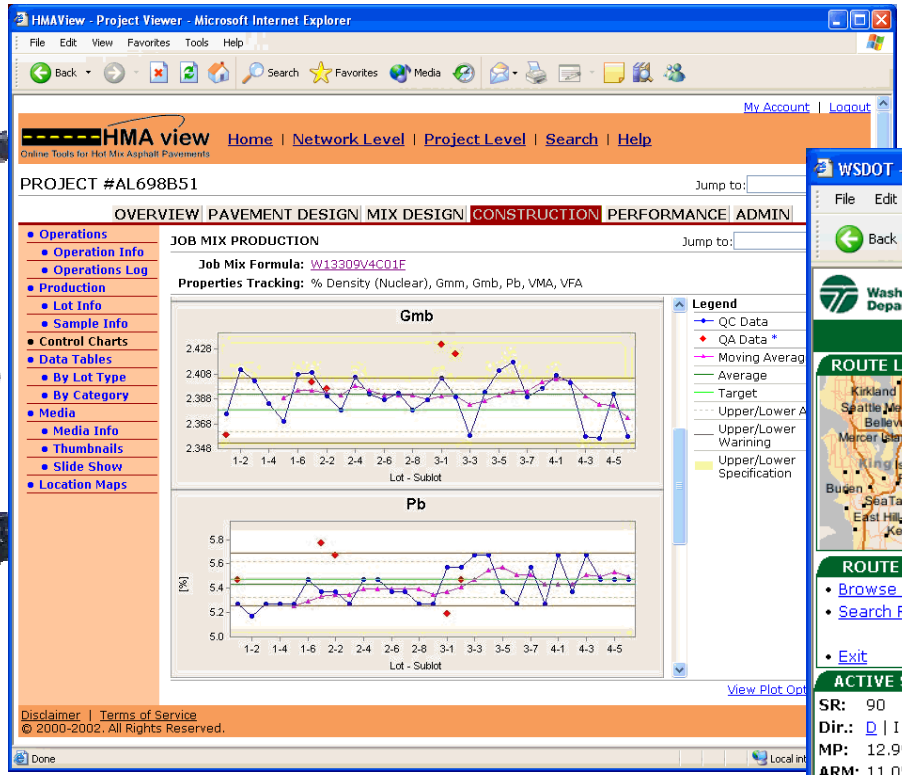
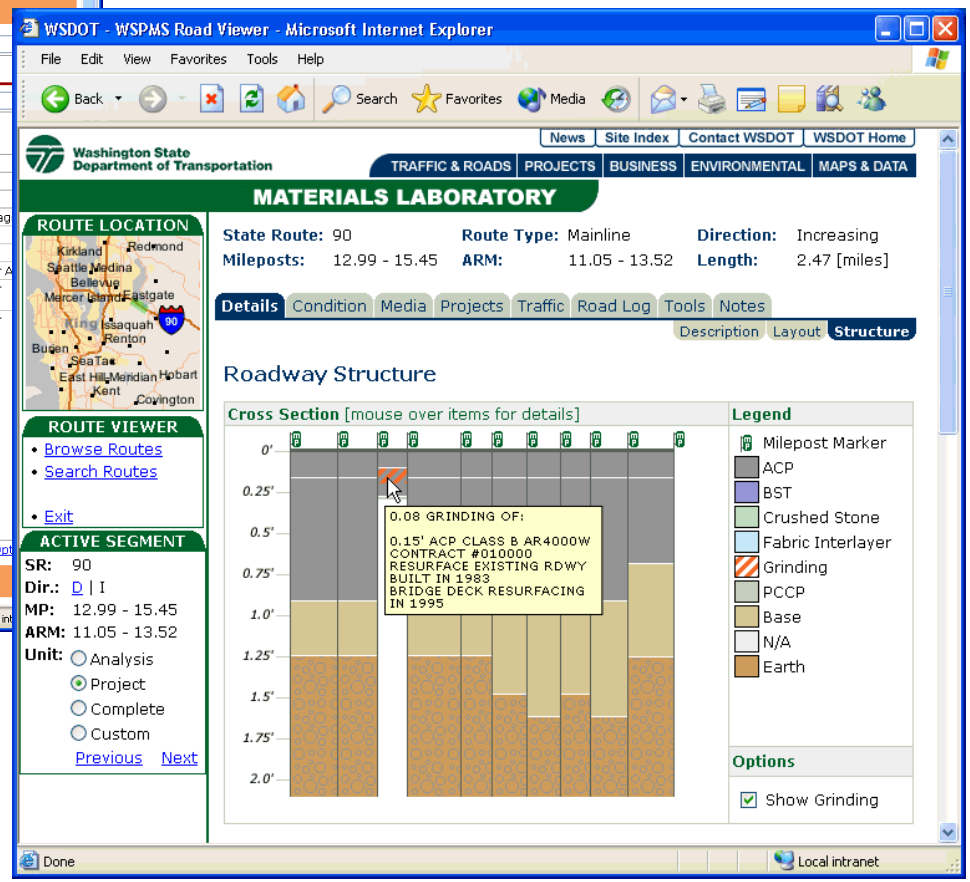
- Specializes in technology driven solutions for the paving community
- Launched from University of Washington
  - Over 35 years of experience in pavement industry
  - Strong collaboration with industry
  - Recognized in the pavements and learning communities

Data Management Solutions



HMAView (MDSHA)

WSDOT Pavement Management System



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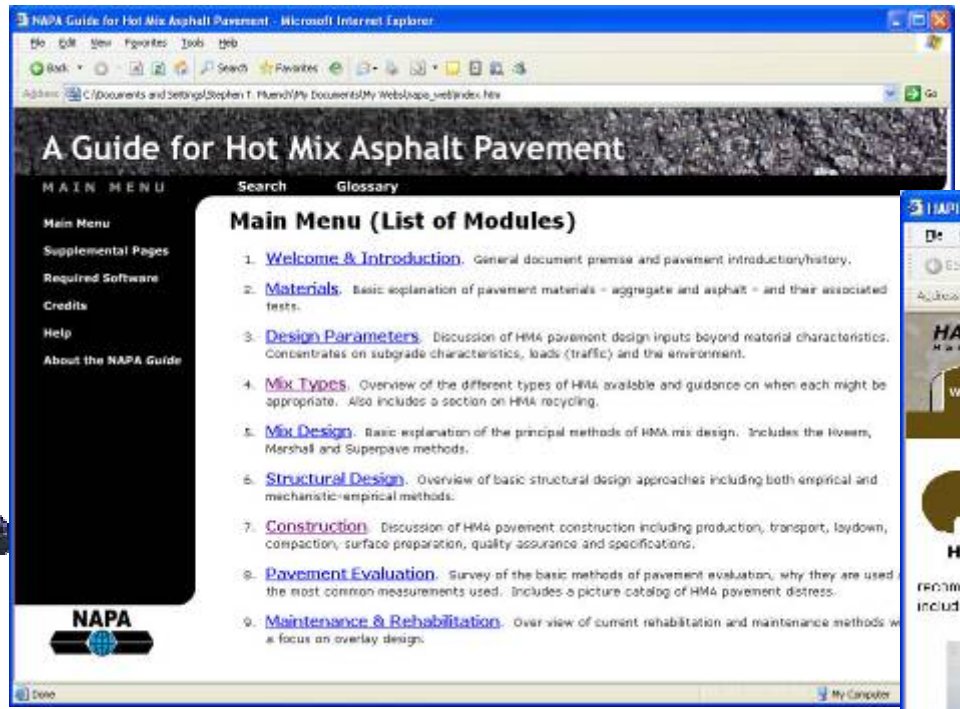
Interactive Pavement Guides



NAPA Guide for Hot Mix Asphalt Pavement

HAPI Asphalt Pavement Guide

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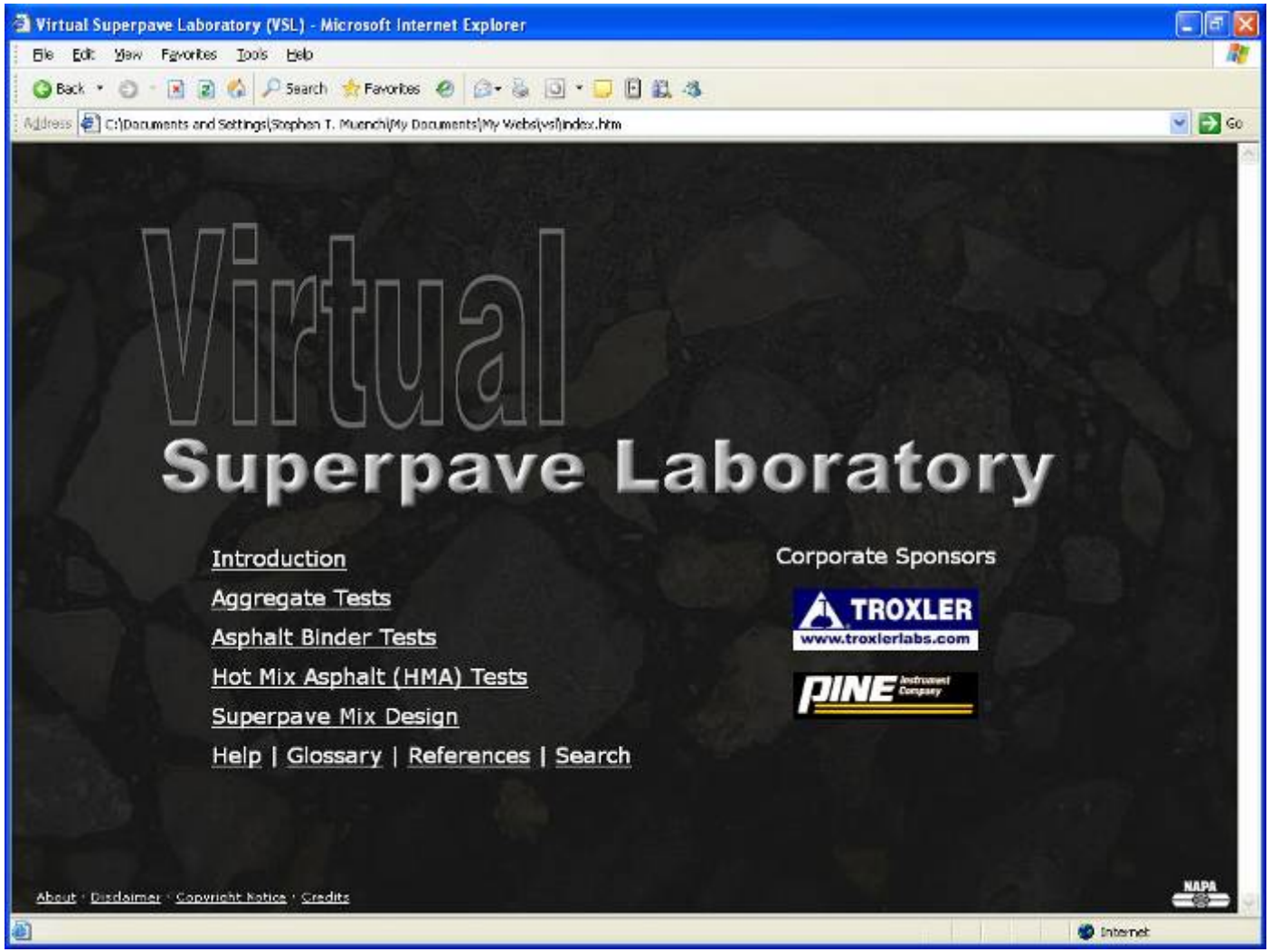
Virtual Superpave Laboratory



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Online Training Courses

- Courses
  - One lesson
  - Multiple lessons
- Lessons
  - 30-60 minutes in length
  - May build on each other

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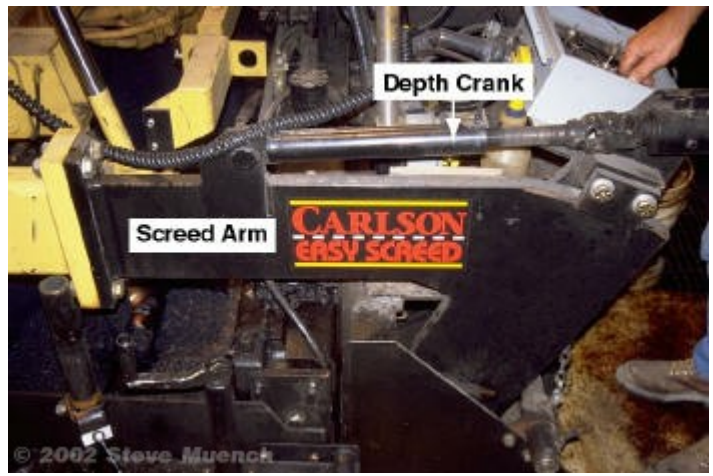
What does a course look like?

- Learning objectives
- Packaged in digest-able topic driven modules
- Two methods of delivery
  - Guided lesson
  - Self directed lesson
- Quiz feature
  - Measures trainee knowledge retention
- Progress tracking and feedback
- Supplemental resources

Course Content

- Digital Media
- Interactive Graphics
- Video
- Animations
- Narrations



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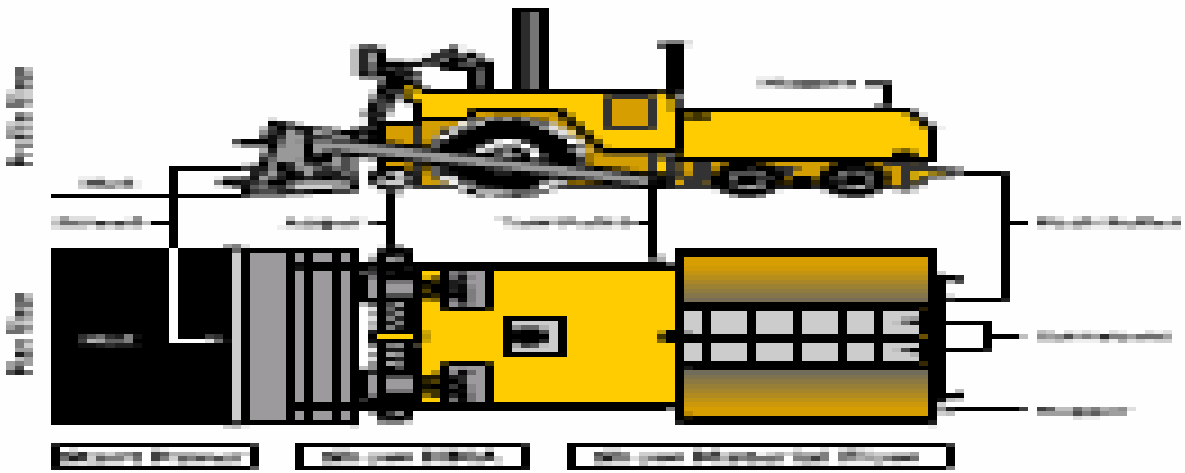
Course Content Examples



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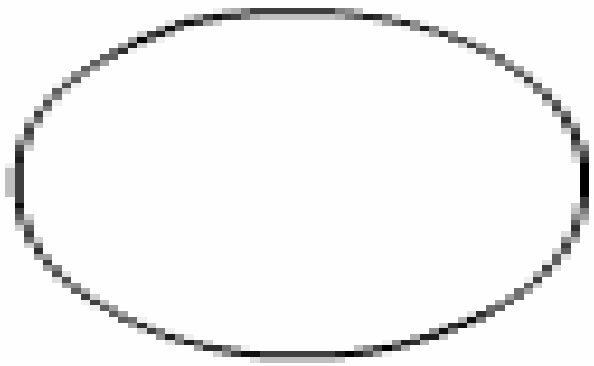

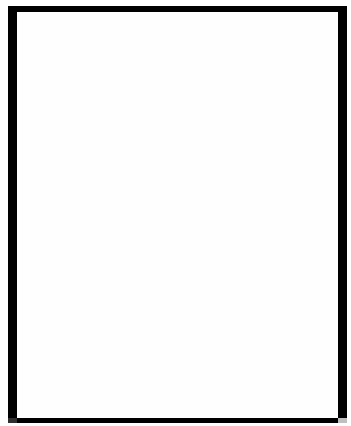

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Course Content Examples

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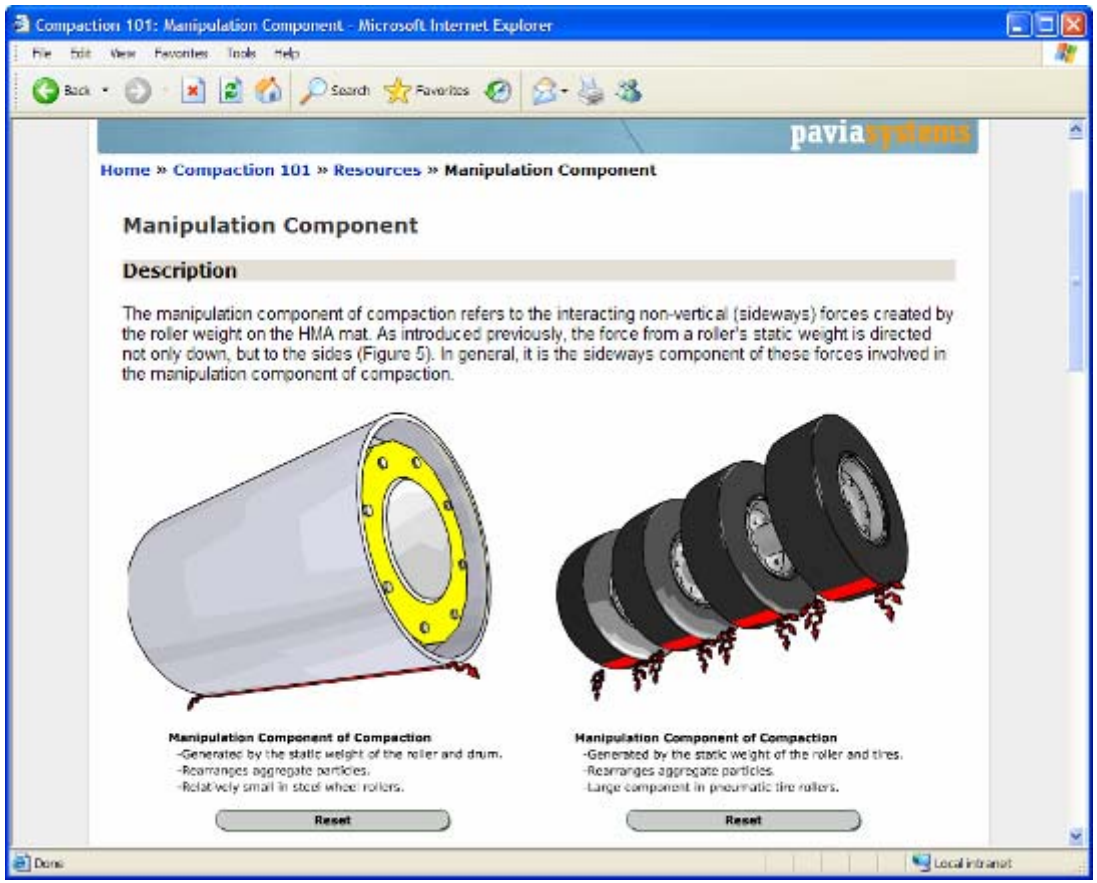
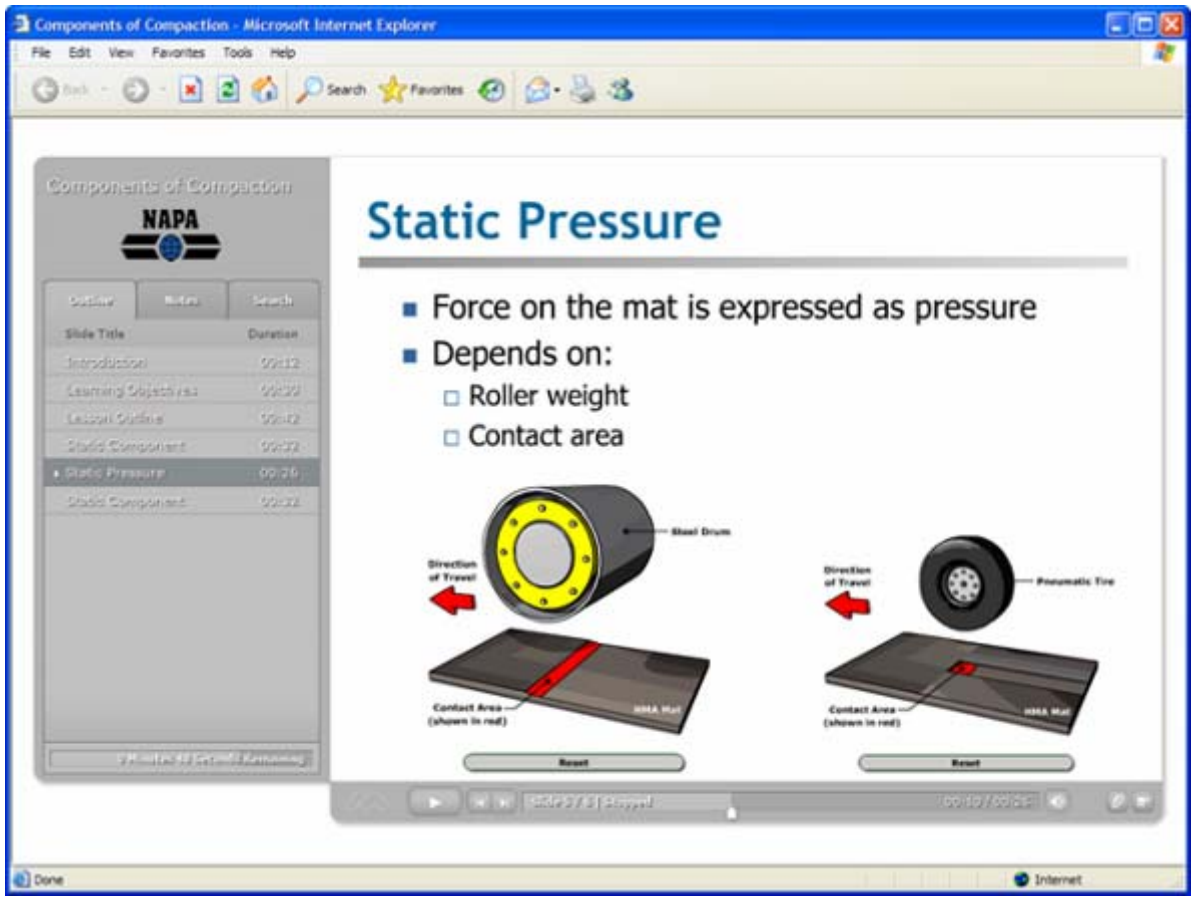
Course Navigation

- Self directed, at your own pace



Course Navigation

- Guided, with narration and interactions



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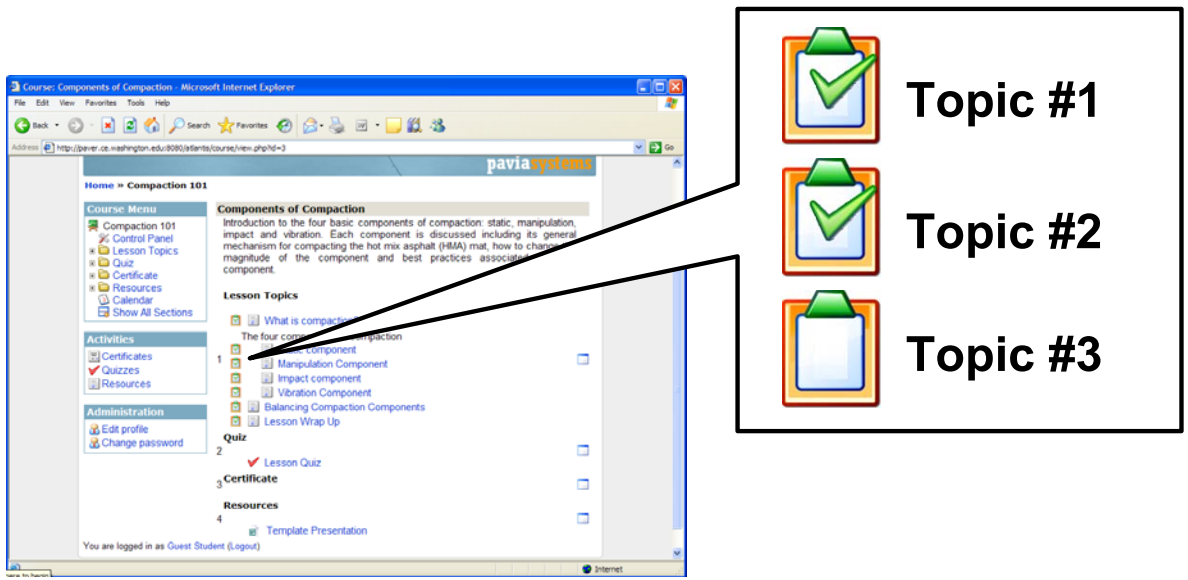
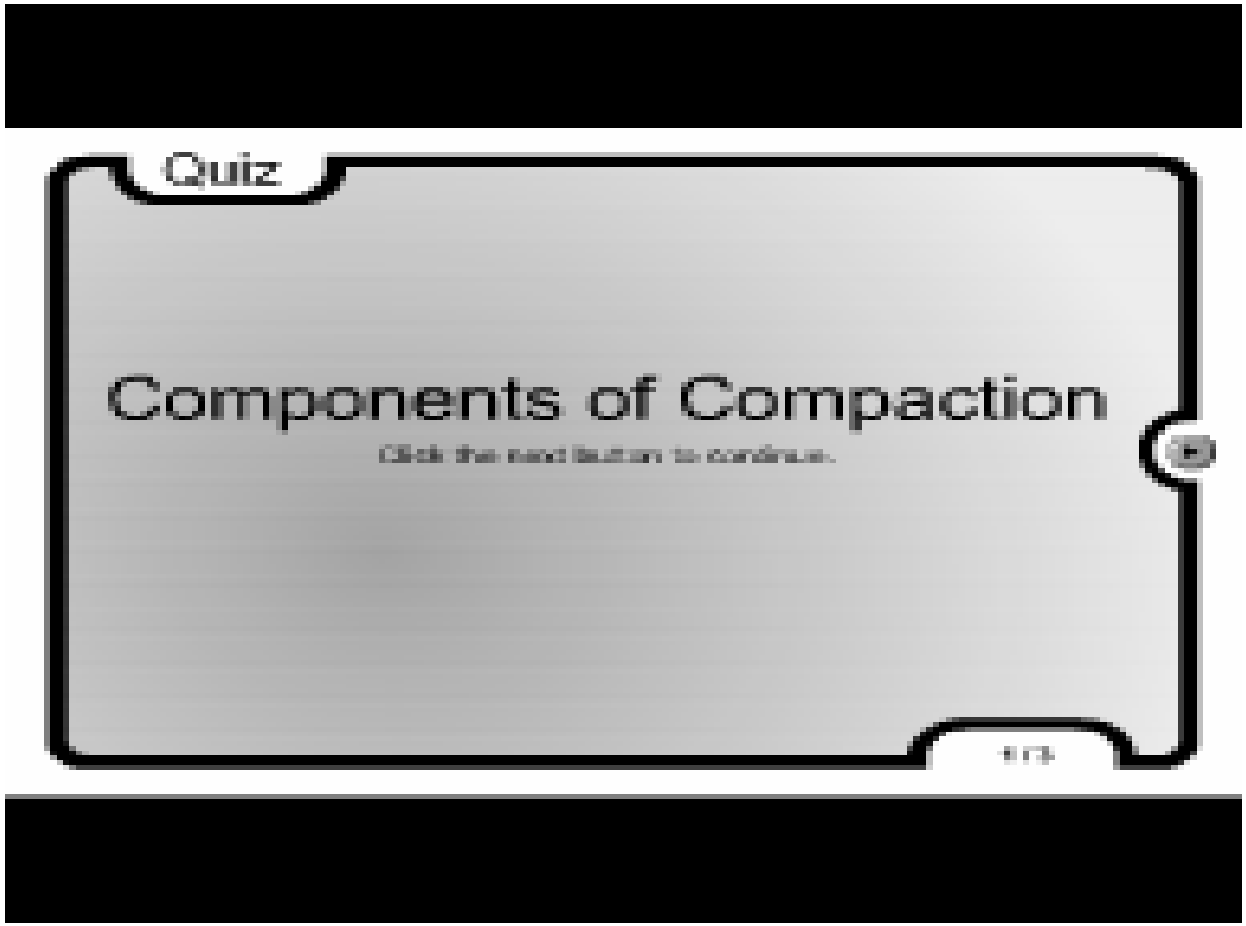
Progress Tracking

- Feedback for participant
- Enforce prerequisites
- Tracking ability for administrators



Evaluation Quizzes

- Many different question types



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Certificates

- Indicate successful completion
- Verification of course compliance

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Additional Resources

- VSL, Pavement Guides, etc.
- Data management links
- Company specific practices and techniques

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Industry Partnership

- We’ve teamed up with NAPA to provide high quality content for the industry
- NAPA member benefits
  - Discounted course pricing
  - Quality review by NAPA
- Course development jointly managed

Availability

- Online training available in coming weeks
- Initial course offerings to include topics on:
  - The fundamentals of asphalt paving
  - Basic operations and procedures
  - Environmental
  - Safety
- VSL, Guide for Hot Mix Asphalt available now

Online Training Pricing

- Similar to traditional training model
- Per user per course
- Prices start at $35
- Courses available for 12 months

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Key factors to success

- Identify training needs
- Set training goals
- Provide incentives to reach those goals
- Focus on your core competencies
- Track your training performance over time
- Empower workers

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