2026 AASHTOWare CONNECT

AASHTOWare PAVEMENT

AASHTOWare Pavement ME Design

Software and Pavement Engineering Concepts

2026 AASHTOWare Connect | Des Moines, IA | April 21-22, 2026

GOALS AND OBJECTIVES


FURNACE
WIR SIND DAS VOLK!
UNDAUNTED
THROUGH THE AGES
Burgundy
TERRAFORMING MARS
CAPITAL LUX
CONCORDIA
ARCHIPELAGO
VITICULTURE
KINGDOM BUILDER
Village
Village
FRESCO
TWILIGHT STRUGGLE
SANTORINI
Lancaster
Bombay
OBSCURIO
BLACK BOX
KELP
COMMANDS & COLORS Napoleonics
BATTLES OF WESTEROS
ROLL PLAYER
TRAJAN
GREAT WESTERN TRAIL
ICE FLOW
TERRA MYSTICA
SPACE ALERT
COSMIC ENCOUNTER
KING TOKYO
BALDUR'S GATE
BETRAYAL AT HOUSE ON THE HILL
TIGRIS & EUPHRATES
RA
LE HAVRE


U.S.S.R.
U.S.A.
Central America
Presence 1
Domination 4
Control 6
Venezuela
Colombia
Peru
Brazil
Bolivia
Paraguay
Chile
Uruguay
Argentina
South America
Presence 2
Domination 5
Control 6
Africa
Presence 1
Domination 4
Control 6
DEFCON STATUS
5
4
2
PEACE
(No restrictions)
NO COUP OR REALIGNMENT ATTEMPTS
in Europe
+ Asia
+ Middle East
NUCLEAR WAR
MILITARY OPERATIONS

What makes software Good?

HAS A CLEAR AND WELL-DEFINED PURPOSE

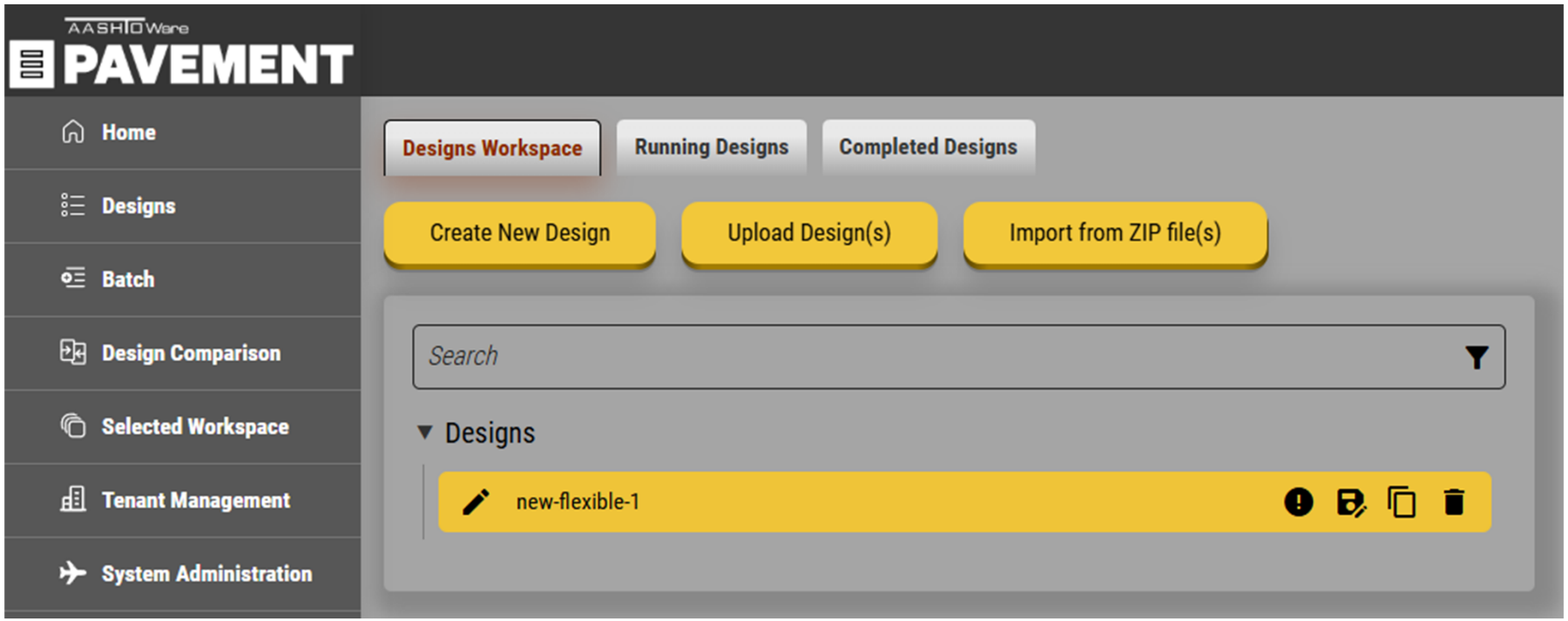
SIMPLE AND INTUITIVE

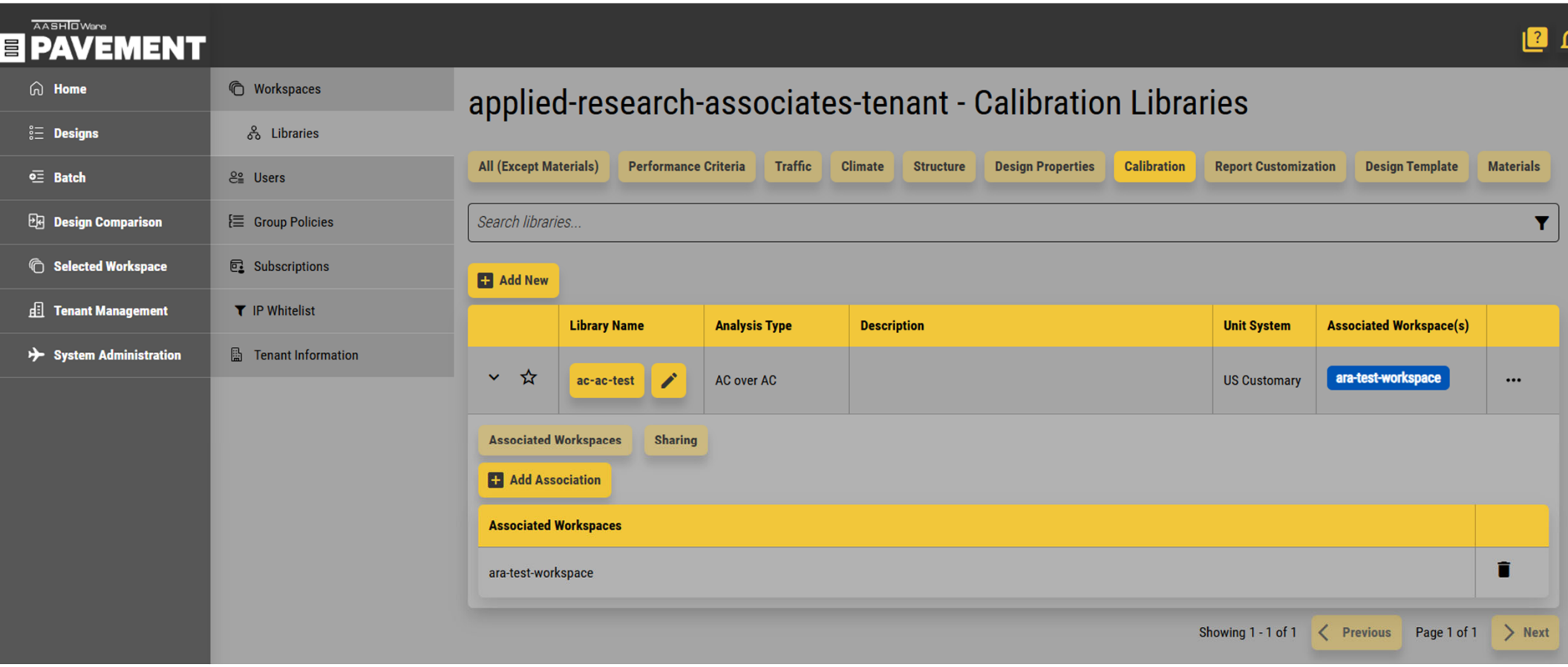
INTEGRATES EASILY WITH OTHER SYSTEMS

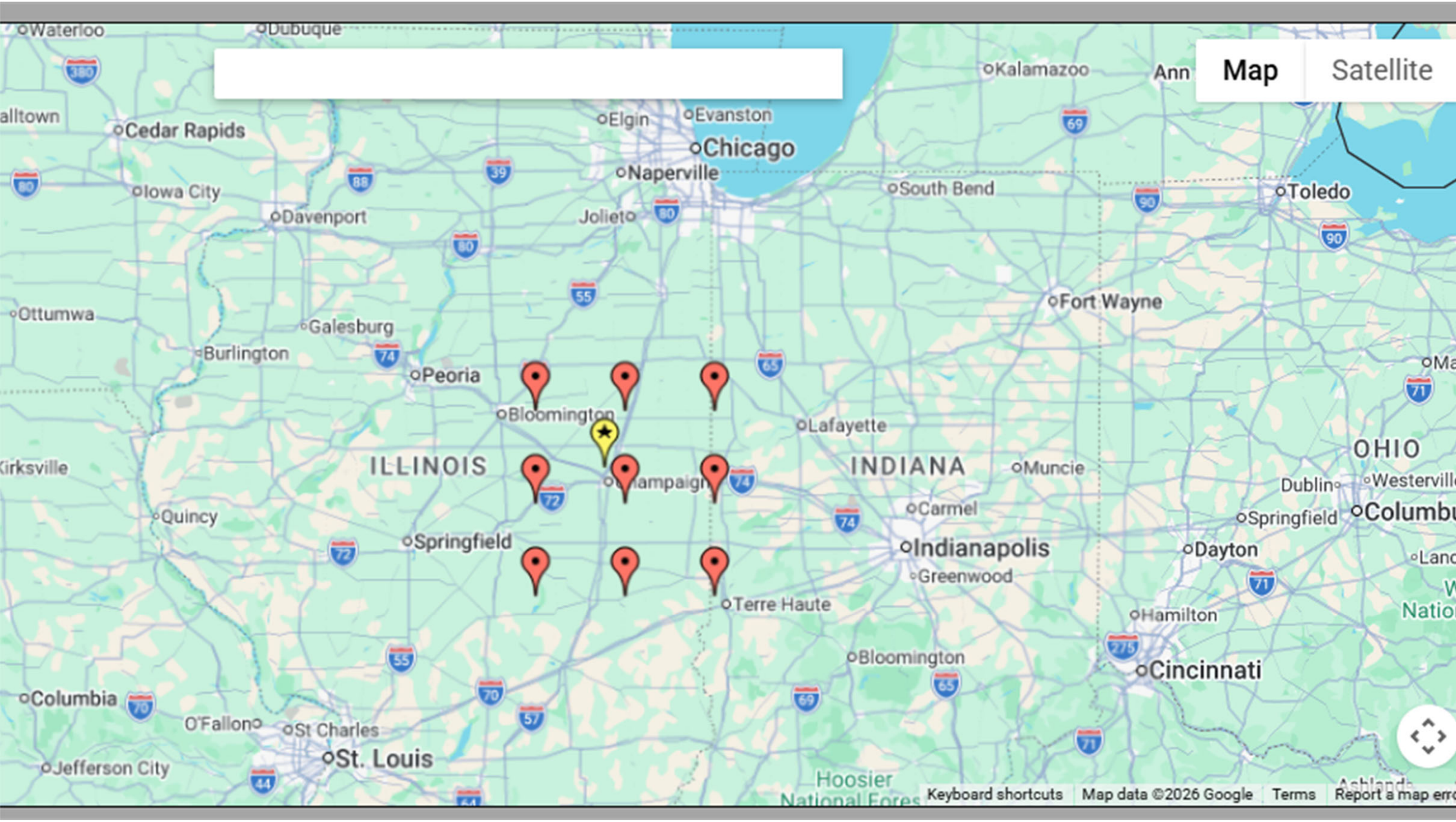
ADAPTABLE TO EACH USER'S WORKFLOW

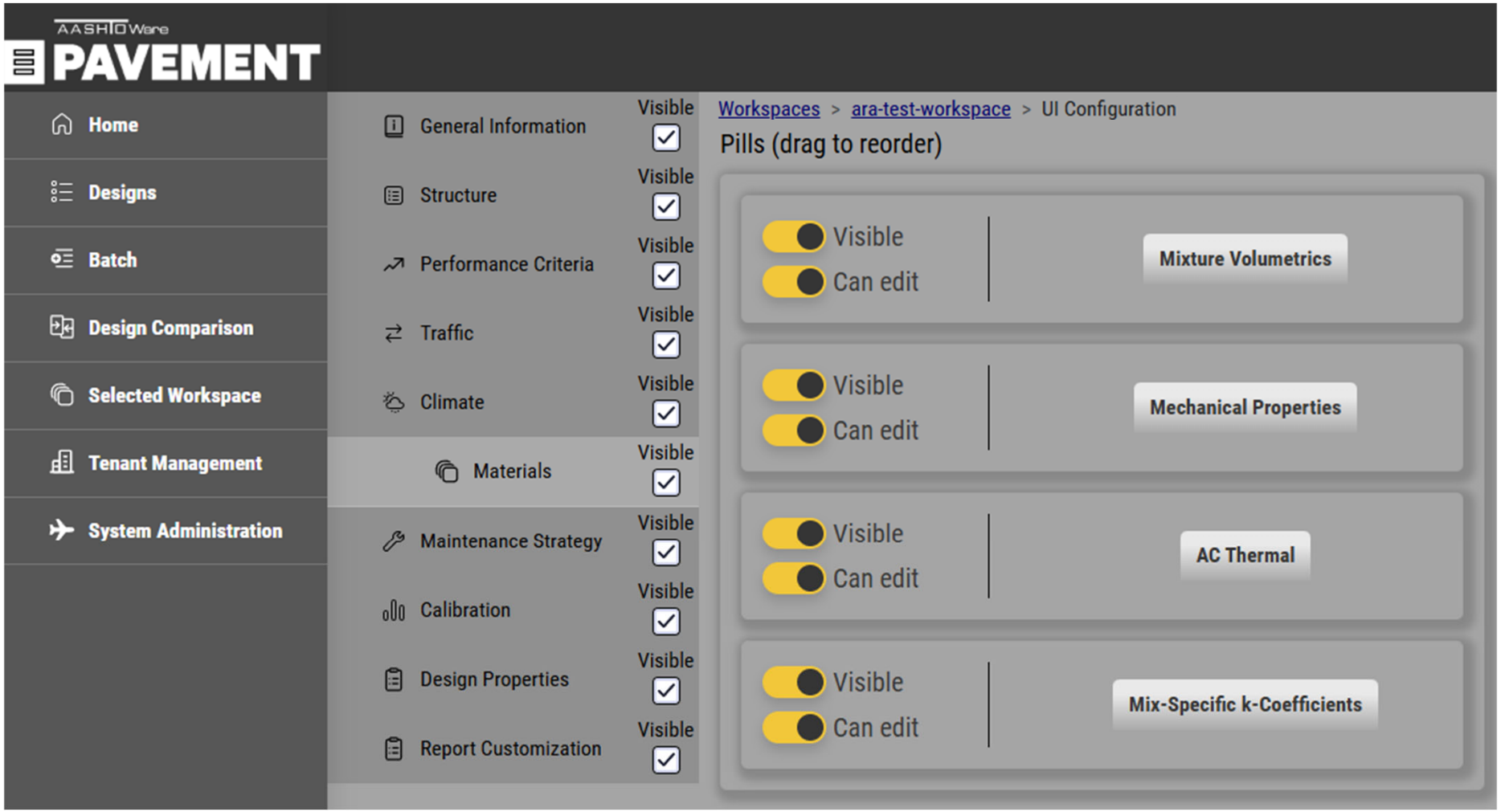
IT'S *ENGAGING* IN ITS USE

“Good software is software that you don’t even realize you are using. Its natural and intuitive, and it ‘gets out of the way’ of the user’s goals by facilitating and augmenting the user’s ability to perform their desired task.”


AASHTOWare
PAVEMENT
Home
Designs
Batch
Design Comparison
Selected Workspace
Tenant Management
System Administration
Designs Workspace
Running Designs
Completed Designs
Create New Design
Upload Design(s)
Import from ZIP file(s)
Search
Designs
new-flexible-1


AASHTOWare
PAVEMENT
Home
Designs
Batch
Design Comparison
Selected Workspace
Tenant Management
System Administration
Workspaces
Libraries
Users
Group Policies
Subscriptions
IP Whitelist
Tenant Information
applied-research-associates-tenant - Calibration Libraries
All (Except Materials)
Performance Criteria
Traffic
Climate
Structure
Design Properties
Calibration
Report Customization
Design Template
Materials
Search libraries...
Add New
Library Name
Analysis Type
Description
Unit System
Associated Workspace(s)
ac-ac-test
AC over AC
US Customary
ara-test-workspace
Associated Workspaces
Sharing
Add Association
Associated Workspaces
ara-test-workspace
Showing 1 - 1 of 1
Previous
Page 1 of 1
Next


Map
Satellite
Waterloo
Dubuque
Cedar Rapids
Iowa City
Davenport
Ottumwa
Galesburg
Burlington
Peoria
Bloomington
Springfield
Quincy
Champaign
Elgin
Evanston
Chicago
Naperville
Jolieto
Lafayette
ILLINOIS
INDIANA
Kalamazoo
Ann
South Bend
Toledo
Fort Wayne
Muncie
Carmel
Indianapolis
Greenwood
Terre Haute
Bloomington
Columbia
O'Fallon
St Charles
St. Louis
Jefferson City
Hoosier
Dublin
Springfield
Dayton
Hamilton
Cincinnati
OHIO
Keyboard shortcuts
Map data ©2026 Google
Terms


AASHTOWare
PAVEMENT
Home
Designs
Batch
Design Comparison
Selected Workspace
Tenant Management
System Administration
General Information
Visible
Structure
Visible
Performance Criteria
Visible
Traffic
Visible
Climate
Visible
Materials
Visible
Maintenance Strategy
Visible
Calibration
Visible
Design Properties
Visible
Report Customization
Visible
Workspaces > ara-test-workspace > UI Configuration
Pills (drag to reorder)
Visible
Can edit
Mixture Volumetrics
Visible
Can edit
Mechanical Properties
Visible
Can edit
AC Thermal
Visible
Can edit
Mix-Specific k-Coefficients

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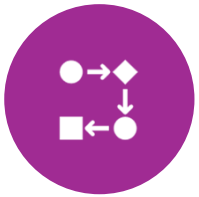
SIMPLE AND INTUITIVE

INTEGRATES EASILY WITH OTHER SYSTEMS



ADAPTABLE TO EACH USER'S WORKFLOW

ENGAGING IN ITS USE

USER DRIVEN

Balance long term pavement condition and performance against the budget constraints and objectives of agency asset management systems.

Design Inputs

Design Life: 15 years
Design Type: AC_AC

Existing Construction: May 2023
Pavement construction: June 2024
Traffic Opening: September 2024

Climate Data Sources (lat., long.): 40, -93.75

Design Structure

Layer Type	Material Type	Thickness (in)
Flexible (OL)	Default asphalt concrete	4
Flexible (existing)	Default asphalt concrete	8
NonStabilized	Crushed gravel	20
Subgrade	A-1-b	Semi-infinite

Volumetric at Construction:	
Effective binder content (%)	11.6
Air voids (%)	7.0

Traffic

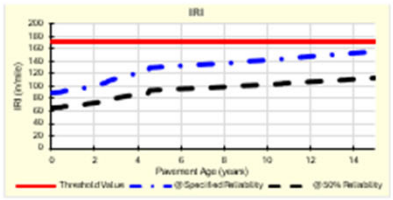
Age (year)	Heavy Trucks (cumulative)
2024 (initial)	4,000
2031 (7 years)	5,714,880
2039 (15 years)	12,595,600

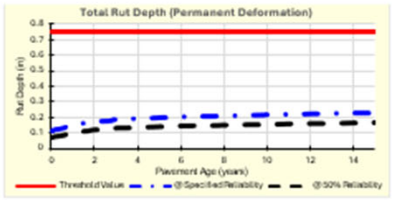
Design Outputs

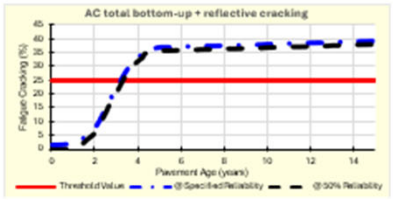
Distress Prediction Summary

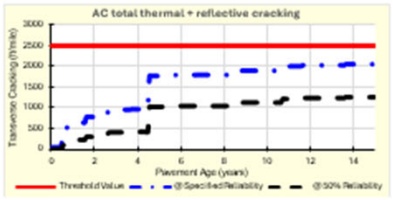
Distress Type	Distress @ Specified Reliability		Reliability (%)		Criterion Satisfied?
	Target	Predicted	Target	Achieved	
Terminal IRI (in/mile)	172.00	155.20	90.00	96.40	Pass
Permanent deformation - total pavement (in)	0.75	0.23	90.00	100.00	Pass
AC total fatigue cracking: bottom-up + reflective (% lane area)	25.00	39.53	90.00	0.00	Fail
AC total transverse cracking: thermal + reflective (ft/mile)	2500.00	2046.27	90.00	97.83	Pass
Permanent deformation - AC only (in)	0.25	0.06	90.00	100.00	Pass
AC bottom-up fatigue cracking (%)	25.00	1.28	90.00	100.00	Pass
AC thermal cracking (ft/mile)	1000.00	1141.76	90.00	0.00	Fail
AC top-down fatigue cracking (%)	25.00	13.29	90.00	99.95	Pass

Distress Charts







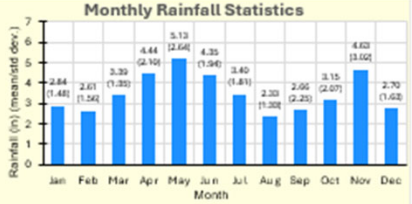


Climate Inputs

Climate Data Sources:

Climate Station Cities: US, MO
Location (lat, long, elevation(ft)): 40.00000, -93.75000, 961

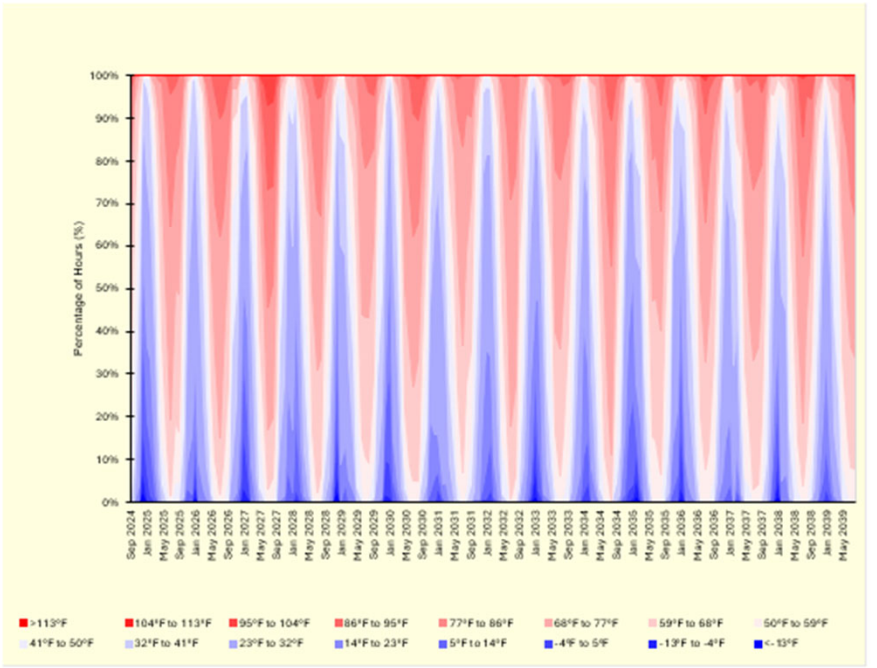
Monthly Rainfall Statistics



Annual Statistics:

Mean annual air temperature (F):	51.37
Mean annual precipitation (in):	41.54
Freezing index (F - days):	618.49
Average annual number of freeze/thaw cycles:	89.02
Water table depth (ft)	10.00

Hourly Air Temperature Distribution by Month:



Design Outputs

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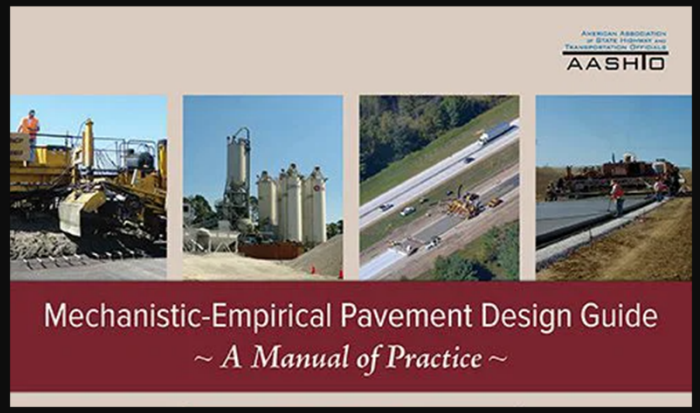

- Performance-focused design
- Mechanistic-empirical mindset
- Materials
- Traffic
- Climate
- Data-driven decision-making

Operationalizes mechanistic-empirical principles

Predicts key distresses using material, climate, and traffic inputs

Enables optimization of structure based on performance targets

Supports consistent, reproducible designs across projects and districts

At first glance, pavement engineering, software design, and strategy board games seem unrelated—but they're all fundamentally about **designing systems that perform well under constraints over time**. The similarities run surprisingly deep[…]