Pontis Focus Areas

• Moving to thin client (internet) application
  • Pontis 5.1.2

• Support the AASHTO Bridge Elements.
  • Pontis 5.1.2 and Pontis 5.1.3

• Improving management/modeling that:
  • Simplifies the set-up of models.
  • Incorporates risk in the decision making.
  • Incorporates multi-objective optimization.
  • Project centric analysis with intuitive results
Supports the new AASHTO Bridge Element Inspection Manual

- Full support and use of the AASHTO Bridge Element Inspection Manual for inspection and decision analysis.

- The new National Bridge Elements are required in MAP-21 for all NHS bridges.

  • “Not later than 1 year after the date of enactment of the MAP–21, each State and appropriate Federal agency shall report element level data to the Secretary, as each bridge is inspected pursuant to this section, for all highway bridges on the National Highway System”
Definition of risks for each bridge

- Ability to define and store risks at the bridge level.
  - likelihood of event
  - consequences
  - Impact to the transportation system.
- Ability to define multiple risks for any bridge including:
  - Scour
  - Seismic
  - Fatigue/Fracture
  - Collision/Impact
  - Security
  - User Defined Vulnerabilities
Multi-objective bridge modeling and prioritization framework

- Ability to evaluate and prioritize multiple objectives simultaneously.
- Incorporation of bridge risks in project and network level trade-off analysis.
- Support “what if” network level policy analysis for defined performance metrics.
• Project centric planning and analysis.
• Geographic based project development.
• Support for bridge maintenance work orders.
• Improved Weibull deterioration models.
• Technology Upgrades
• And More….
Anticipated Phases

Phase I: Risk Assessments, integrated utility functions, and Network Corridors

Phase II: Implementation of improved deterioration models and Multi-Objective Analysis

Phase III: Full completion including integrated project planning and all administrative features

Completion and delivery of the final phase (5.2.3) is planned for 2015.
The project solicitation is requesting participation in a pooled fund enhancement of Pontis.

- The solicitation is seeking 250K from 20 states to fund the project scope.

States contribution can be funded using:

- State Planning and Research Funds (match waived)
- Highway Bridge Program Funds
- AASHTO Service Units
- Other State Sources