

Pontis 5.1.2

Supporting AASHTO NBE Inspections



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National Bridge Management,
Inspection and Preservation
Conference

inspect^tech

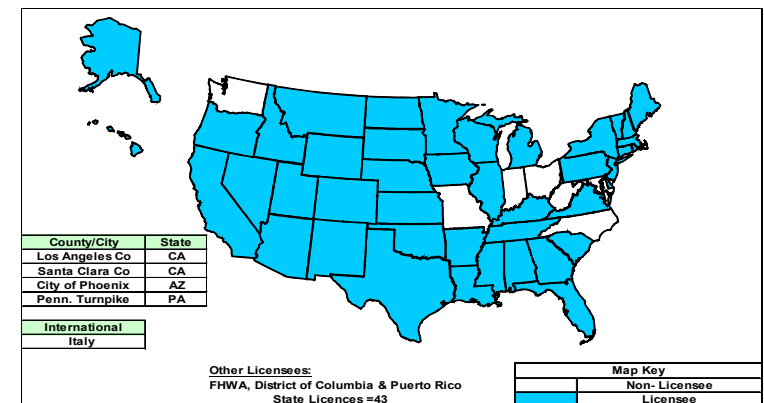
Agenda

- How did we get here?
- Where we are now?
 - Pontis 5.1.2 Basics
 - Common Questions
- What does the future hold?
- Questions



Pontis Basics

- Development started in the early 1990's under FHWA guidance
- Part of AASHTOWARE – BRIDGEWare software
- Licensed by over 40+ states
- Supports AASHTO element level inspection and management



How Did We Get Here?

- RFP released in late 2010 for Pontis 5.1.2
- InspectTech selected early 2011
- InspectTech began working with Pontis in March 2011 when we started implementing the new National Bridge Elements into Pontis 5.1.0.3/5.11
- Intensive learning and development of Pontis through Spring/Summer

Pontis 5.1.2



The Basics of Pontis 5.1.2

- Pontis 5.1.2
 - Built off of the existing 5.X architecture (5.11/5.1.03)
 - Add support for new AASHTO National Bridge Elements
 - Assorted minor enhancements
 - “Features release”
- Goal: Allow for NBE/BME inspections to be done with Pontis and lay the foundation for 5.2 (management).



Pontis 5.1.2

- Allows for new National Bridge Elements
- Improved Interface
- Fixes a number of 5.11 issues
- New export/import options
- Some speed enhancements
- Improved installation

Graphical User Interface

Pontis5 Cassini Browser

File Sites Help

PONTIS BRIDGE MANAGEMENT SYSTEM

Welcome: **Pontis User**
Database: **Pontis512 SQL Server Sample DB**
[Help ?](#) [Account](#) [LogOut](#)

Menu

- ☒ Condition
- Appraisal
- Inventory
- Schedule
- Work
- Multimedia

Bridges Reports Admin Inspection Gateway

Bridge: **04 07598** Facility Carried (007): **JESSE OWENS PKWY** Inspection: **2004-12-15 (INRG)** Type: **Regular NBI** ☐ Metric ☒ English

Condition Ratings

Deck (058): 7 Good
Superstructure (059): 6 Satisfactory
Substructure (060): 7 Good

Channel (061): 8 Protected
Culvert (062): N N/A (NBI)
Waterway (071): 8 Equal Desirable

Unrepaired Spalls: (SF)

Validate
Calculate SR

Element Conditions

- All Structures - ☒ Quantity ☐ Percent ☒ Show Only Non-CoRe [Show Last CoRe Insp](#) [Add New Element](#) [Edit Element](#)

Elem	Str. Unit	Env	Description	Quantity	Units	Qty. 1	Qty. 2	Qty. 3	Qty. 4	Qty. 5
12	0 / Type = M (0)	Low (2)	Concrete Deck	400.000	sq.ft	100	200	100	0	
520			Deck/Slab Prot Sys	400.000	sq.ft	300	100	0	0	
104	0 / Type = M (0)	Low (2)	Prestress Box Girder	500.000	ft	350	100	50	0	
358			Concrete Cracking	20.000	ft	0	0	20	0	
215	0 / Type = M (0)	Low (2)	R/C Abutment	144.357	ft	114	20	10	0	
226	0 / Type = M (0)	Low (2)	P/S Conc Submgd Pile	100.000	ft	70	30	0	0	
233	0 / Type = M (0)	Low (2)	P/S Conc Cap	30.000	ft	20	10	0	0	

Ready http://localhost:9000/default.aspx Port: 9000

Significant Changes from 5.11















- CoRe elements are read-only
- Sybase no longer supported
 - Oracle and Microsoft SQL options
- All Crystal Reports no more DW.NET
- XML option for exporting/importing
- Support for importing Migrator data
- Unable to utilize NBI translator
- Single action type adopted for all work candidates

New Feature – NBE/BME Elements

- Newly adopted bridge element standard that replaces CoRe elements for element level bridge inspections
- Fully supported in Pontis starting with version 5.1.2
- CoRe elements still visible in Pontis but all new inspections will be NBE/BME

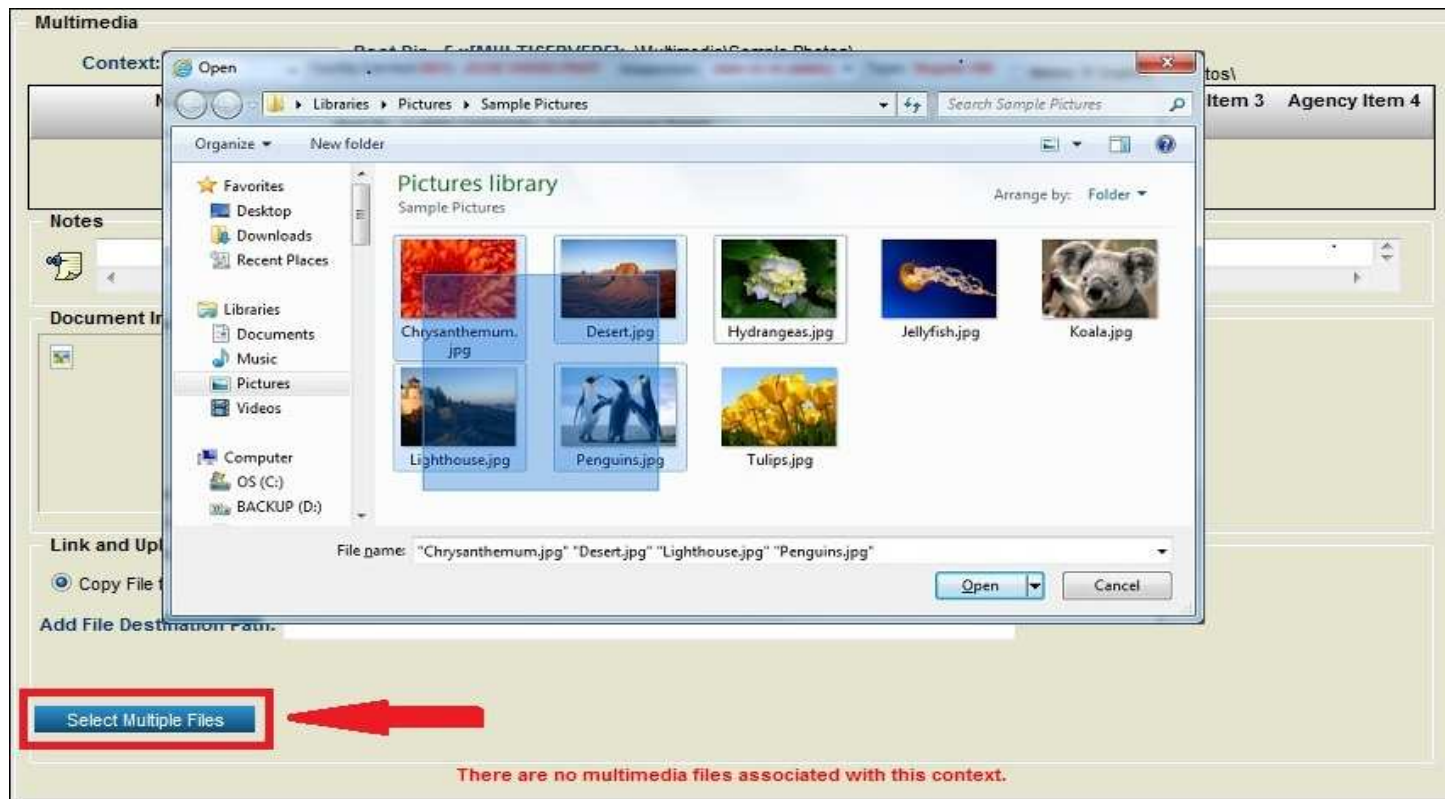
New Feature – Protective Systems

- Parent/child relationships
- Easily identifiable through icons

	Elem	Str. Unit	Env	Description	Quantity	Units	Qty. 1	Qty. 2	Qty. 3	Qty. 4	
		107	0 / Type = M (0)	Ben. (1)	Steel Open Girder / Beam	1640.420	ft	1640	0	0	0
		116	0 / Type = M (0)	Ben. (1)	R/C Stringer	1.000	ft	1	1	0	0
		358			Concrete Cracking	1.000	ft	1	0	0	0
		515			Steel Protective Coating	1.000	sq.ft	1	1	0	0
		202	0 / Type = M (0)	Low (2)	Steel Column	24.000	each	0	0	24	0
		241	0 / Type = M (0)	Low (2)	R/C Culvert	1.000	ft	1	0	0	0

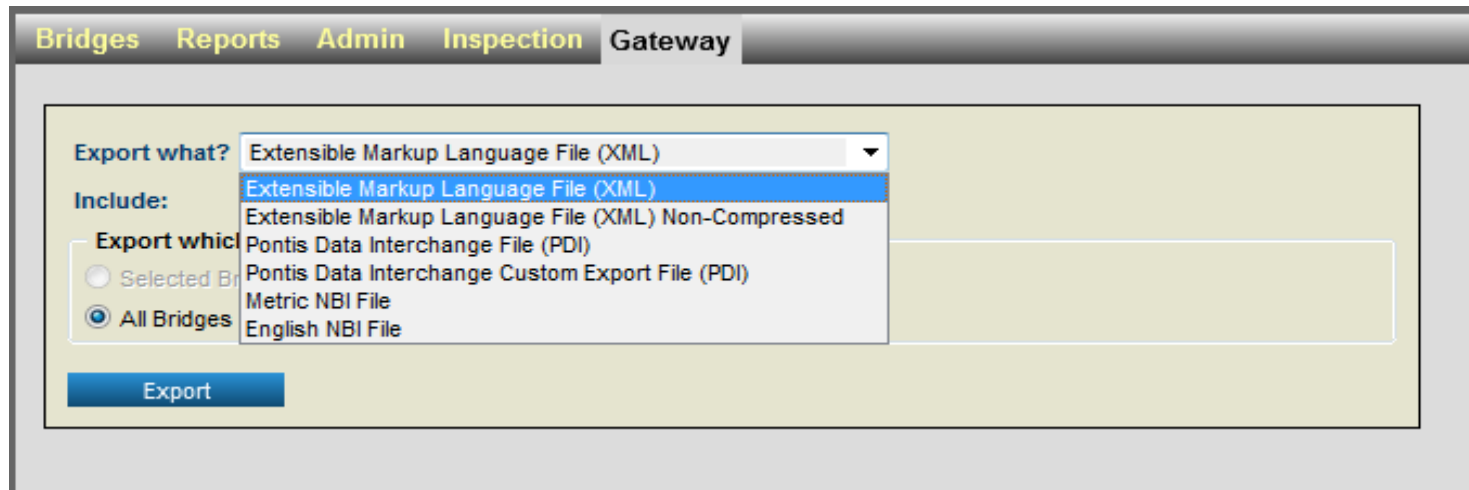
New Feature – Multi File Uploads

- Ability to upload multiple Files at once



New Feature – XML Export/Import

- XML is an industry standard format for saving and transferring data



The screenshot shows the Pontis software interface with the 'Inspection' tab selected. The 'Export what?' dropdown menu is open, displaying the following options:

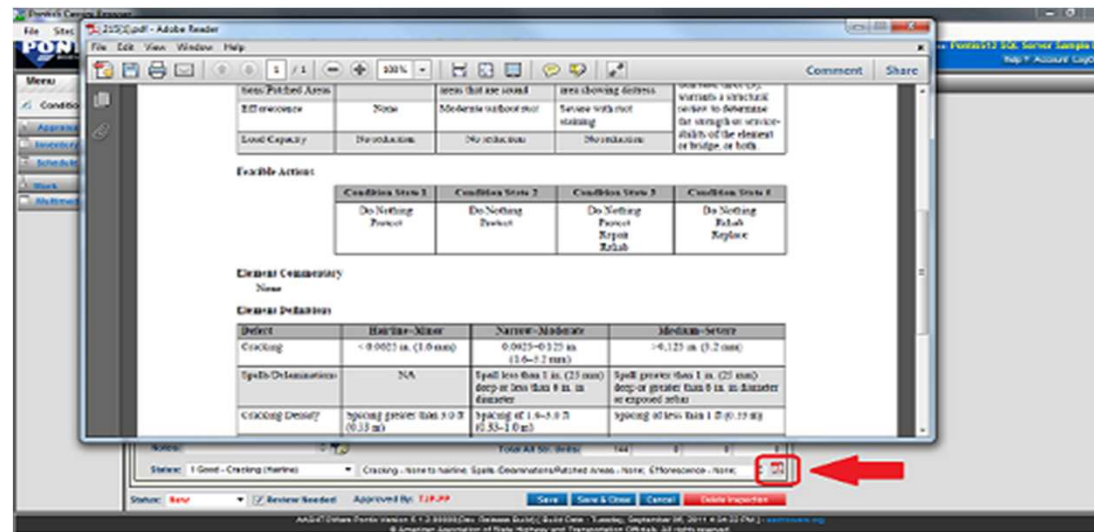
- Extensible Markup Language File (XML) (selected)
- Extensible Markup Language File (XML)
- Extensible Markup Language File (XML) Non-Compressed
- Pontis Data Interchange File (PDI)
- Pontis Data Interchange Custom Export File (PDI)
- Metric NBI File
- English NBI File

Below the dropdown, the 'Export which' section has two radio buttons: 'Selected Br' (unselected) and 'All Bridges' (selected). An 'Export' button is located at the bottom of the form.





- PDI is still available option for exporting/importing data

New Feature – User Requested Features

- Integrated Guide Manuals



- Easy access to past CoRe elements

Elem	Str. Unit	Env	Description	Quantity	Units	Qty. 1	Qty. 2	Qty. 3	Qty. 4	Qty. 5
 241	0 / Type = M (0)	Low (2)	(CoRe) Concrete Culvert	647.999	(LF)	641	7	0	0	0
 333	0 / Type = M (0)	Low (2)	(CoRe) Other Bridge Railing	157.999	(LF)	158	0	0	0	0
 334	0 / Type = M (0)	Low (2)	(CoRe) Misc. Rail -.33 m sw	342.001	(LF)	342	0	0	0	0
 515	0 / Type = M (0)	Low (2)	(CoRe) Custom R/C Wing Wall	354.326	(LF)	354	0	0	0	0

New Feature – On Demand Lists

- Performance improvement for agencies with large databases, from 70 sec load time to 7 sec load time
- Filter bridges as you type



The screenshot displays the Pontis software interface with the 'Bridges' tab selected. A dropdown menu is open for the 'Bridge:' field, showing a list of bridge IDs: 04 08, 04 08003, 04 08508, 04 08511, 04 08529, and 04 08530. The dropdown is highlighted with a red rectangle. The main form area shows fields for 'Facility Carried (007): JESSE OWENS PKWY', 'Inspection: 2011-09-07 (TGBO)', and 'Type: Regular'. Below these are dropdowns for 'Channel (061): 8 Protected', 'Culvert (062): N N/A (NBI)', and 'Waterway (071): 8 Equal Desirable'. There are also buttons for 'Validate' and 'Calculate SR'. At the bottom, there is a section for 'Element Conditions' with a dropdown for '- All Structures -' and radio buttons for 'Quantity' and 'Percent'. A table at the bottom shows a list of elements with columns for 'Elem', 'Str. Unit', 'Env', 'Description', 'Quantity', 'Units', 'Qty. 1', 'Qty. 2', 'Qty. 3', and 'Qty. 4'.




Elem	Str. Unit	Env	Description	Quantity	Units	Qty. 1	Qty. 2	Qty. 3	Qty. 4
215	0	Type = M (0)	Low (2) R/C Abutment	144	357 ft	144	0	0	0

New Feature – Work Actions

- Single action type
- Other types converted to new type

Work

☒ Show All ☐ Show Open

	Candidate ID	Action	Date Recommended	Target Year	Estimated Quantity	Estimated Cost	Status	Work Assignment	Priority	Structure Unit	Date Completed	Description	
▶	A-DOT001-057F6A47-0000006A	-1	12/3/2002	2006	0.00	\$500.00	Approved	Contractor	low	1		Converted Work Candidates	
▶	A-DOT001-057F6A47-0000006D	-1	12/3/2002	2005	0.00	\$200.00	Approved	Agency	Medium	1		Converted Work Candidates	
▶	A-DOT001-0952C02D-0000001F	-1	12/15/2004	2006	0.00	\$100.00	Under review	Agency	Medium	1		Converted Work Candidates	


Type of Work


Candidate ID: A-DOT001-057F6A47-0000006A

Structure Unit: 1 / Type = A

Action: -1 - Converted Work Candidates

Priority: low

Date Recommended: 12/3/2002 

Date Completed: 

Target Year: 2006

Assigned: Yes

Work Assignment: Contractor

Status: Approved

Work Estimates

Estimated Cost (\$): 500

Clean and patch spalled areas at beam 4 and beam 8.

Reporting

- Full support of Crystal Reports
 - Used for creation of all new reports
- Consistent structure to show elements for a bridge and their associated items
- Summary reports can group elements, flags, protective systems, and NBI data as needed

Database Access/Schema Structure

- New Tables and Indexes created to support 5.1.2 and 5.2 changes
- Six new tables added for 5.1.2
- All legacy tables and historical data still exist

Some Common Questions

- 64 Bit Support?
 - Officially - No ☹️
 - Unofficially - Yes 😊
- Can I just click a button and get my CoRe Elements into NBE format?
 - Not quite ... see Migrator talk
- Can I edit CoRe elements in 5.1.2?
 - No
- How do I finally upgrade from Sybase?

Documentation

- Significant Documentation Updates
 - Updated User Manual
 - Updated Technical Manual
 - Update Help Files
 - Embedded PDF Files Of Element Descriptions

Improved Communication

- New Website
 - <http://pontis.inspecttech.com/>
- New Support Center, Email, Phone Contact
- Regular Updates
 - Emails
 - Website
- Survey for feedback
- Regular Webinars – Nov 17th 1PM EST.

Foundation for Pontis 5.2

- Will perform multi-objective modeling with new element data.
- Improved elements supports new modeling
- Inclusion of risk in the decision making process
- Improved decision support tools for:
 - Preventive maintenance
 - Risk management
 - Improvement and replacement
 - Combinations of the above

Summary Items

- Pontis 5.1.2 very close to completion
 - Numerous (but not all) bugs from 5.11 fixed
 - Big THANK YOU to TAG and Task Force for all the time spent!
- Support center fully ramped up
- Pontis 5.2 work to began in detail soon
- Pontis 5.2 will be a phased implementation
 - It will actually get done
 - It will work

Questions?

