

**AASHTOWare Bridge Management (BrM) Task Force Meeting Minutes
September 19, 2013
Portland, Oregon (2013 User Group Meeting)**

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Meeting of the AASHTOWare Bridge Management Task Force – User Group Meeting

Date: September 18-19, 2013

Participants:

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<u>BrDR Task Force</u>	Tim Armbrecht Todd Thompson Dean Teal	Illinois DOT South Dakota DOT Kansas DOT	Chair
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Note Taker: Anthony Hutskow



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User Meeting Feedback / Survey Response Review

There were 55 responses (46 DOT and 9 consultants) to the survey.

Based on feedback received over the past day and a half, the Task Force discussed the following topics as potential issues that may be brought to the Task Force for action/support.

Inspection Date Issues

There have been a lot of negative comments on the inspection module. Users have expressed concerns that the module is not useable and that under the inspection scheduling tab the dates are not updated based on the current inspection date.

One of the key issues is how the process works. Every inspection is tied to NBI and element data. These items must be in the inspection to carry it forward; however, special inspections such as underwater inspections do not include the inspection of NBI and element data.

Agency Specific Forms and Tabs

Users also expressed an interest in being able to create an agency screen to be used to enter all of their inspection data. There seems to be a misunderstanding in the user community with regard to whether or not all the tables are accessible for use on agency specific screens. The ability to develop agency specific screens and forms is available to users/agencies in 5.1.3, but it is difficult to use (not available to elements). When available, the API will provide additional functionality; however, in the meantime it was decided that Bentley should provide instructional information via webinars to provide user training and assistance. The webinars will include, for example, "this is what you can do in this version". Specific items need to be covered with the focus on what the product can do. Whether or not these webinars will be recorded or conducted live was left undefined.

Metric/English Conversion

BrM stores the data in Metric units because FHWA requires NBI data to be submitted in metric. The FHWA plan to move to U.S. Customary units is still unclear. Users would prefer the use of English units; however, the change is not likely until the new FHWA coding guide supports English unit submissions. The NBI submittal for April 2015 will probably still be in metric; however, element submission will be in U.S. Customary units.

Crystal Reports

Crystal Reports is difficult to use. Most users do not have the time to learn how to use a report writer. One solution to the issue of difficulty in reporting could be to deliver basic canned reports with the software to allow users to more easily run reports on demand. A standard set of canned reports may be difficult to define given the different requirements each state has for the report formats. Consideration should be given to creating a technical notes section on the contractor website to display mini white papers on how to use Crystal Reports for creating reports. This may also be a good candidate for a wiki page.

Concern relating to Service Unit Work (and the potential effect on the delivery of 5.2.1)

Bentley is currently staffing up; however, there are a few resources who are critical to 5.2.1 development and service unit work activities. Bentley is currently performing a minimal amount of service unit work compared to past contractors. A Bentley employee focuses strictly on service unit work activities and is not involved in the development of 5.2. They are therefore not on the critical path for 5.2.1.



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The question of “Is there a way for the content to be delivered faster?” was asked. Bentley responded that while the FDSs are living documents, there is always deviation from what is originally documented. The deviation is often greater and later in the development cycle than what was originally anticipated. However, they continue to work to deliver within the schedule established. Bentley has not gone back to analyze how the deviations have impacted the schedule. On the other hand, the FDSs are many times not as well defined as they should have been.

Priority to move the API and browser functionality up in the schedule

The fact that Internet Explorer 10 is not supported by the software is a big problem for several users. However, changing the priority to move browser support up in the schedule will negatively impact the delivery dates for functionality promised to the End User Designees and the State Bridge Engineers (at SCOBS) is also a problem. If we hold up the API work, it will hold up the next release (i.e., user manuals, beta, training, etc.). Deterioration may be delayed by six months so.

The discussion moved to how will the Task Force know when the API work is completed. Detailed information on the specifics that will be included in the API enhancement needs to be documented. A TRT task should be defined and a group within Bentley should be identified to review and document the specifics that are needed and will be delivered in the API. Input from the two groups should be assimilated and, based on the input from the two groups, the Task Force should determine the final list of API functionality to be delivered.

There was mention of breaking out portions of the API functionality into tiers for staggered delivery in order to give the users something immediately. More and more can be delivered as we progress through 5.2. The problem with this approach is the hardest part of API is bringing it all together. The TRT should be more focused on the 5.2 effort. It was noted that API functionality was not included in the solicitation.

TRT Tasks to be Assigned

The following TRT tasks were identified as a result of the discussion

1. Document the recommended default views of the software screens (Usability TRT?), i.e., what is included on the screen, what is expanded, what is collapsed, etc. (Project TRT)
2. Review and provide feedback on the new manuals.
3. Document needed API functionality from a user licensee perspective. (Non-Project TRT)
4. Develop a white paper to explain the Action/Benefit Group relationship. Document the explanation, to include “how-tos”. Conduct and record a webinar explaining the relationship (webinar conducted by the TRT). Include information on the advantage of using a benefit group and a business perspective on how to use the functionality. (Project TRT)
5. TRT team to ‘e-meet’ with the Bentley technical writer to discuss opportunities to improve the documentation delivered with the product.

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User Meeting Feedback (Discussion 2 of 3)

Software Code Names

The User Group approached the Task Force with the idea of being allowed to establish code names for specific versions of the 5.2 software to be delivered. They are interested in identifying each version of 5.2 (i.e., 5.2.1) with an alternate code name to refer to the software. The users provided some suggestions that were assembled by the User Group. The Task Force discussed the idea and decided that they might be interested in such a proposal if the names used would follow some kind of naming convention to help users understand what versions of the software delivered what functionality and what code name versions were delivered in what order.

Inspection Date Frequency

The Task Force needs to have a discussion with T-18 to get direction on how special inspections should be coded. Special inspections are performed by a small, high-demand group of specialists.

A TRT group will be established to discuss further and develop recommendations. It appears that currently everyone has a different type of work-around. We need to document what is there then establish the process that would best serve the users going forward. Several groups, including representatives from the Florida DOT should be involved in the review. The TRT should also identify the time frame of when this enhancement should be integrated into the product.

The current FHWA inspection requirement will essentially result in the inspection date being refreshed every time a bridge is touched. The frequency of the element inspection is not defined by FHWA. It is assumed that FHWA believes every inspection is essentially an element inspection; however, elements are not actually inspected during special inspections. The focus should be more on the time periods between inspections rather than on the inspection dates.

The terminology on the inspection screens should be changed to more clearly define 'last' vs. 'previous', etc. The software should provide the option to review a list of every inspection required and when the next inspection is due. Inspection frequencies vary by inspection type. Users would like to have the ability to sort inspections by inspection type and date to allow the user to better evaluate the data entered. Better organization of the data will allow the user to review all the information on the road surface at the same time to ensure the text and associated work recommendations support each other. An example, scour issues are identified on the components; however, they are not included in the element model. The TRT should recommend how the screens should be changed to better address user needs.

The schema was previously forwarded to Bentley for comment. They both came back with a recommendation to store a date. However, the question of 'what is the date' has not been addressed. Is it the date of the routine inspection or the date of the last special inspection? The element inspections are paired with a routine inspection. The routine inspection date should be the date stored. Findings from special inspections should be added to the inspection database. Routine inspection should be responsible for ensuring that the inspection data from the special inspections are appropriately incorporated into subsequent routine inspections. **The routine date would be the date submitted with the element data. Element = Routine.**

TRT Charter Review / Discussion

The Task Force discussed requirements for membership on the Pontis 5.2 Project TRT



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The need to allow subject matter experts to participate as members of the TRT (whether their state is a project participant or not) was discussed at length. It was acknowledged that we should not refuse volunteers or their contributions given the fact that some of the expertise we need may not exist within the ranks of the project participating states

The Task Force acknowledged that tasks for areas outside of the scope of the 5.2 project could be performed by members who are not part of the project and non-project participants could participate on project TRT teams. However, TRT team leads for Project Tasks should be offered to 5.2 project participants first. If a 5.2 project representative is not interested in serving as a TRT team lead, someone from outside the project will be allowed to serve as a team lead. Any member agency license holder can participate as a member of the TRT.

Project Software Releases

5.2 project participants are allowed to receive a copy of the 5.2.1 release. By definition of the project participant deliverables, the remainder of the BrM licensing community would have access to 5.2 software with the final release of the product (i.e., 5.2.3). However, given the fact that some of the enhancements that are included in 5.2.1 were funded through licensing fees, and the fact that this version is needed for states to submit elemental data to FHWA, the Task Force made the decision to make 5.2.1 available to all BrM licensees. The Task Force will document the specifics of their decision to make version 5.2.1 available to all licensees.

The value of participating in the solicitation is not specifically related to receiving the project deliverables throughout the product development effort but rather to allow the participants to have a voice to make an impact on what is delivered by the project.

AASHTO Project Manager Update

AASHTOWare Community Code of Conduct

The Task Force was provided the AASHTOWare Community Code of Conduct. TRT and TAG leads should pass this document along to their groups. TAG work under the umbrella of the User Group. TRTs are directed by the Task Force.

BrM Database TAG

The User Group is interested in re-instituting the BrM Database TAG to provide feedback on changes to the database. The most immediate task would be to review the proposed element structure which needs to be finalized by the end of October. We also need to determine if database changes are needed to support changes to inspection date processes.

Bentley is near completion of the new database design and welcomes input to help guide the effort; however, he cautioned that if he has a strong technical argument, the Database TAG needs to listen.

Five Year Project Plan/Projection

The five year plan is a budget projection spreadsheet for the current year and five years into the future. AASHTO will develop a draft five year projection for both products, and will pass these to the Task Force for review, comments and revisions. AASHTO is currently finalizing the budget figures for the beginning of the FY14 financial reporting (July 2013).

Research Suggestions for SCOJD

Suggestions for research areas to be considered by SCOJD should be forwarded to AASHTO staff by the end of the month. These will be presented to SCOJD during the week of October 7. The only research suggestion received to date is "Identify issues associated with licensing AASHTOWare software"



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internationally and develop strategies to mitigate the identified risks. Areas to be researched would include but would not be limited to securing Intellectual Property; programmatically handling alternate units of measure, dates, and time values; program options for inclusion of languages other than English, etc.”

Element Manual Database

The Task Force discussed the issue of how the electronic version of the element manual database should be distributed to member agencies and AASHTO contractors, under what conditions, and with what caveats. It was agreed that the distribution of the database should be done so only after the receiving agency or contractor has signed an appropriate use agreement. The use agreement should include language to not allow reproduction of the database, distribution to others, use of the source information within non-AASHTOWare applications, etc. The electronic deliverable is essentially the source database behind the element inspection manual.

The Element Manual Database is a product of T-18. All AASHTO member states should be allowed to have access to the source database. However, recipients of the database need to be aware that the Word file generated from the source database is not 100% accurate. There are glitches in the conversion to Word that result in missing content. The source database is not intuitive and is extremely complicated. Excel spreadsheets, if they were available, would be more beneficial to the user community.

Providing Source Code to Project Participants

The Task Force has received a request from one of the 5.2 project participant states to obtain access to the 5.2.1 Alpha source code. Project participants will have the right to secure copies of the project source code upon completion of project releases; however, source code for alpha and beta versions of the releases will not be provided to requesting project participants. Source code will be available to project states only for production releases of the software.

Future Catalog Changes

The Task Force began preliminary discussions on what versions of the software should be supported in the FY2015 catalog. Discussions centered around the possibility of not supporting 5.1.0.3 as well as looking for an opportunity to stop supporting 4.5. In reality, the older versions of the software will not be useful going forward since they do not support the new elements. By this time next year we should have deterioration modeling going.

International License Request from ISQ (Portugal)

AASHTO has received a request from ISQ to license the Pontis 4.5 software again for FY2015. Given the issues encountered over the past year with localization problems they have had in trying to use the software, AASHTO requested Task Force direction on whether or not AASHTO should allow them to license the software again in FY2014.

The general agreement of the Task Force was to allow ISQ to license the product with up-front full disclosure that neither AASHTO nor the AASHTO contractor would provide support for their localization problems.



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User Meeting Feedback (Discussion 3 of 3)

Utility for Moving Element Notes, Work Candidates, and Actions

Could we or should we develop a utility for moving element notes, work candidates, and actions?

- Element notes is a 'low-hanging' fruit. Solid knowledge of what they have and where they are going would be required to automate work candidates.
- Activities that are system-generated should be sorted by utility cost ratio. At some point the activities below a certain benefit-cost ratio should be dropped. Consider sorting either ascending or descending based on value. Consider showing the top 3 or 4 activities. The minimum benefit-cost ratio could be set by the user.
- For work candidates it would be nice to have the system select an activity that might be more beneficial than what the user recommended.
- Have the system generate the activities (and costs) that should be performed to result in a particular result. An existing database had the old elements. The Task Force needs to review the database to ensure there are no issues. This would be a good starting point
- To get feedback, consider opening up the website as is or create a TRT area where users could log in and put in the cost -> then becomes the test data.
- Make web-server version of 5.2.1 available to EUDs who are not members of the testing TAG.

5.1.3 Data Validation

5.1.3 Data Validation – There are concerns that this feature is not working correctly. The Edit update had some changes a few years back. When comparing 4.X vs. 5.X there may be an issue where this was dropped from the check.

Miscellaneous

- Quick Filter needs to be cleaned up. Bentley is currently working on this.
- Labels need to be organized on the desktop. There seems to be a variety of label text justification, i.e., some right justified, some left justified.

Management of TRT Demand for Contractor Resources

- The Task Force discussed the issue of how to best manage TRT member access to Bentley resources from a scheduling and budgetary standpoint. The TRT subgroups need to have an appropriate level of technical access; however, we need to ensure that contractor resources are not wasted on issues of low priority to the Task Force to ensure resources are not taken away from development activities. The Task Force needs to ensure that the TRT is not directing the contractor. This balance of resources also needs to ensure that the contractor is involved in TRT discussions as appropriate to allow them to be up to speed of decisions made. There needs to be some kind of official of handoff. A simple process will work; however, the practice of just posting work products to a website did not work. It was inefficient and resulted in issues being dropped and not carried forward.
- The TRT exists because there are too many moving parts for the Task Force to manage alone. Implementing a handoff through the Task Force may add more actions items. We could consider instituting some type of closeout report or something similar.
- The TRT is still going through some startup issues.
- In addition to resolving the hand-off issues, the Task Force also needs to address existing communication problems. Deterioration believes they were tasked to develop default curves; therefore, that is what they presented to the BrMUG. They are under the impression that their tasks have been completed; however, there needs to be something more than what they have posted. Deterioration is still working.



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- BrMUG attendees appeared to be encouraged by the information presented by the TRT team leads. TRT presentations should be included on the agendas for future BrMUG meetings.
- Committing five (5) hours per month of Bentley time for each TRT group would be a good start. Should Bentley time dedicated to TRT support begin to get out of hand, the issue would become apparent fairly quickly given the fact that the Task Force discusses project issues via conference call every other week. Adjustments could be made if necessary.
- A Task Force member suggested looking at options to use a decision register to document decisions. The decision register will provide a repository for actions to be logged, decisions documented, and a 'parking lot' section to store delayed tasks and questions.

Project Analysis

- Project tracking is a little easier.
- The Task Force discussed high level questions that need to be resolved. Specifically, when we are putting projects together, do we want to perform the economic analysis prior to the project being created, or fully build the project before the economic analysis has been performed?
- A Task Force Member walked through the process used in their state - Inspectors create work candidates into the system. A separate group takes the needs and puts them together into reasonable projects. Projects are currently influenced by geography and type of work but should be more influenced by economics. We need to establish the business model before we design this component of the 5.2 software.
- In other states, inspectors are not making the decisions. Decisions are being made at a higher level in the organization. Inspectors create the work candidates and the senior bridge engineer creates the project.
- Other States follow a similar process.
- Users would like to see the impact of leaving one bridge in as well as the impact of removing a bridge from a project. Does the priority change / shuffle?
- Users need to have the ability to check on and check off work (i.e., paint bridges). The system should provide feedback such as: "you've recommended this activity; however, another activity (ABC) has a better benefit/cost ratio and might be a better choice."
- The Task Force wants to be able to subset the total inventory to allow the user to get to a smaller subset to work with (and put together a project). At that point, the user wants to be able to review the work candidates and associated advantageous activities. Users also want the ability to see work candidates across multiple bridges so they can pick and choose (to see what their choices do to risk, life-cycle cost, etc.). The basic concept is different from how Pontis was run historically. Once the project is set, it could be locked down (bridges, activities, impact, etc.) The user could then calculate the various components of their program.
- The Task Force supports the idea of getting guidance from the system while in the process of building their projects.
- The Task Force made the decision to retain control of this task. Multiple use cases need to be developed for project development. It is possible that development of the use cases could be assigned to a TRT. Progress needs to be made on marrying inspector candidates with activities.
- The Task Force discussed options to move forward with development. A list of parameters is needed, i.e., parameters that need to be evaluated when determining how to pick work candidates. (action type, benefit / cost ratio)
- Use cases include
 - Fully detail how to create a project for a single bridge?
 - Create a project for a group of bridges?



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- Options for getting this done
 - Try to do ourselves (break it up among the members of the Task Force)
 - Go to the TRT to develop the use cases
 - Capture the information and make decisions.
 - Delegate only the parts – retain the big picture.
- Concerns
 - The Task Force is not sure if this task is defined well enough to delegate it to the TRT, i.e., what is the use case for developing a project on a single bridge?, how do you decide to do multiple bridges at the same time (i.e. time, geography, etc.)?, etc..
 - If a bunch of single projects were created, how would these be combined?
 - Create a bunch of single projects and then how would you combine.

Remote Testing of 5.2.1

The Task Force discussed developing a roadmap webinar for 5.2.1 to be conducted prior to initiating testing tasks. The roadmap webinar would serve to orient the users prior to ‘diving in’ to the new release. The webinar should not go into a lot of depth (with regard to product functionality) and should be no more than an hour in length. A look at the product screen by screen, describing what each screen does, would be a good approach.

The Task Force also discussed the idea of developing a type of “Where’s Waldo book” for 5.2.1 to assist users migrating from 4.X and 5.1.0 3 in understanding where items have moved to on the new screens.

Public Utilities Commission

The request received from a Public Utilities Commission regarding our software licensing structure and how customizations might be address for their organization was tabled and will be discussed during an up-coming Task Force conference call.



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Attachment A: Listing of AASHTOWare Bridge Task Force, TAG and User Group Personnel

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