

Summary Minutes Of The

AASHTO Virtis Opus Task Force Meeting

June 21, 2011

Boise, Idaho

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General Information – Meeting of the BRIDGEWare Task Force

Date: Tuesday, June 21, 2011

Participants:

BRIDGEWare Task Force

AASHTO	Alaeddin Mohseni Jim Ramsey	Project Manager, BRIDGEWare Project Manager, BRIDGEWare
BRIDGEWare Chair	Tim Armbrecht	Illinois DOT
V/O Task Force	Dean Teal Bryan Silvis Joshua Sletten Amjad Waheed Tom Saad	Kansas DOT Virginia DOT Utah DOT Ohio DOT FHWA Liaison, Midwest Resource Center
V/O User Group	Jeff Olsen	Montana DOT
Contractor	Jim Duray Herman Lee	Baker Baker
Pontis Task Force	Mike Johnson Francois Ghanem	CalTrans, Vice Chair New York DOT

Note Taker: Joshua Sletten

General Discussion

Matt Farrar of the ITD plans to meet with the Task Force sometime during the week. Tim has prepared a presentation for Matt and ITD. As the chair of AASHTO Subcommittee on Bridges and Structures technical committee T18, Matt is glad to have a connection to the BRIDGEWare Task Force.

is holding steady at 47 (not counting BRASS and Madero related bugs). Three of the unresolved bugs are critical. Some bugs submitted last calendar year will not be fixed by the 6.3 release. The Task Force agreed that the bugs can be fixed between 6.3 and 6.4, either as a patch or a part of the 6.4 release.

Financial overview and work play summary

The Contractor presented handouts showing

- Items in the 2009-2010 work plan
- The monthly budget report for the 2010-2011 work plan.

Progress on bug resolution

The Contractor will have to decide where bug resides with 3rd parties. The Task Force agreed to allow the Contractor to remove 3rd party bugs from their graphs on handout 4.b.

Update on Virtis/Opis Licensees

The Contractor does not believe the consultant 10-pack license option is causing exorbitant maintenance and support demands. The current pricing is \$25k per 10-pack of licenses and unlimited licenses at \$75k.

The Task Force discussed how to handle maintenance and support for version 6.2. It was decided to continue to provide maintenance on 6.2 and monitor how much effort is involved. The Task Force will evaluate and discuss again at the October Task Force meeting. BRASS bugs may not get fixed sooner. The Task Force agreed that bugs found in 6.2 will be addressed in 6.3 or future releases.

Support and Maintenance report

Incident and support summary

All bugs reported in a calendar year should be fixed by the next release. Another 21 bugs have been identified since March, but the total number of unresolved bugs

Enhancement list update

The Contractor presented two lists of potential enhancements. One list captures enhancements from the Beta TAG in 'buckets'; the other list is a comprehensive tracker of all enhancement ideas.



IssueNet policy update

The Contractor provided an update on the current status of the IssueNet policy. The Contractor is writing up responses to issues and will then post them to the website. The Contractor is looking for ways to automate this process so it does not require a lot of maintenance.

Idaho Transportation Department presentation

The planned presentation to ITD was replaced by a discussion with ITD's State Bridge Engineer, Matt Farrar. This occurred later in the week during the Pontis agenda meeting.

User Group

Training

Jeff Olsen put the User Group Meeting agenda on overhead and discussed the proposed presentations. The Task Force offered to present findings between LFR/LRFR and BRASS/ AASHTO engine rating results. As a follow up, the Contractor will take 15 minutes to describe differences between the BRASS engine and the standard engine. Only LFR has been addressed at this time.

The Task Force has directed the Contractor to develop a comparison between engines for LRFR.

A brainstorming session at Helena VOBUG will solicit what each state wants to see in the product. These ideas will be used by the Task Force to help guide the long-term planning and development of the product. The Task Force will allow consultants to provide ideas, but only States will vote and therefore prioritize the ideas.

Tom Saad of the FHWA suggested Task Force members attend training sessions at VOBUG to address questions and issues. Task Force members will attend the training sessions as much as possible.

Tom Saad mentioned having a load rating panel session of States / Users to discuss / describe how they are going about rating their inventory. This may give States ideas on how to approach load rating. Tom will be the point of contact on this VOBUG agenda item. Tom will also be the moderator for the session.

Meeting attendance is expected to be about 100 people. Participants should have 6.3 loaded on their laptops prior to training sessions. The Contractor will be available on Monday afternoon to help with loading software and general questions.

User Forum

Dean is currently working on this, but it may not be ready by the Helena VOBUG meeting. No timetable for roll-out is established yet. It may be rolled out via a blast email to users whenever it is ready.

Update on 6.3

Progress and schedule review/Beta Testing/ Licensees

The Contractor distributed a summary of Version 6.3 beta (through beta 4 distributed June 17th) incidents. The TAG needs to accept their incidents that the Contractor has already verified. Dean sent an email to TAG testers alerting them to accept incidents.

The Task Force decided to delay the release of version 6.3 one week to allow time for the beta testers to accept all their incidents. The Task Force is primarily focused on delivering a well tested product prior to the Helena VOBUG. The revised delivery schedule was agreed to be:

1. 7/1/11: Receive all comments from beta testers
2. 7/8/11: Send new release to agencies (receive on 7/11/11)
3. 7/11/11: Send new release to consultants (receive on 7/12/2011)

Regression Testing

The Contractor gave a 15 minute presentation on a Regression Testing Unit (RTU). Tests can be imported into V/O – may be integrated into the TFS nightly build process in the future. It is adaptable to include NCHRP 12-50 data. It is potentially available to agencies to compare version updates, etc. The tool is currently ready for production use. The Contractor needs to determine how to best use the tool before using it regularly. In order to continue using and developing this tool, the Contractor will need a task in the work plan. The Task Force directed the Contractor to develop a more comprehensive plan on how to proceed by the next meeting in October.

Enhancements

Global selection of vehicle for design tools

The Contractor will develop a final estimate for this enhancement after reviewing and incorporating TAG comments as approved by the Task Force.

Query tool

The Task Force would like to see a tool with less detail that still provides the desired functionality. This enhancement needs to go back to the TAG to determine what fields they want to see in the filters. This enhancement will be considered for inclusion in the version 6.5 work plan.



Estimate for using interaction eqn. for longitudinal truss rating instead of the Secant equation

One of the TAG members indicated an interest to pursue service unit work to get this enhancement to meet their 13-axle custom permit load case. The service unit work they are interested in is developing the capability to analyze the permit load adjacent to a commercial vehicle. Virtis currently does not evaluate two vehicle types at the same time. Tom Saad mentioned that LRFD distribution factors already account for this situation, but this is a truss specific enhancement and trusses are currently limited to LFR and ASR analysis in Virtis. LRFR is not available for trusses in Virtis.

The same TAG member also believes a 3-D model is needed to assess combinations of trucks in adjacent lanes. The version 6.4 workplan currently includes a 3-D assessment and this enhancement will be wrapped into that assessment. The Task Force will proceed with a two-part approach with the Contractor developing an estimate for the 2-part approach (3-D assessment of vehicles in adjacent lanes). Contractor will assess capability to analyze adjacent vehicles in the 3-D assessment task of the 6.4 work plan. The Task Force will decide in October (after reviewing the Contractor's estimates and assessment) whether these items (interaction equation / adjacent vehicles) can be included in the 6.4 work plan or considered for the 6.5 work plan.

Task FP17, implement LRFR/LFR for nonstandard gage analysis

The Task Force believes LRFR for NSG will eventually need to be done. However, most states are not likely using LRFR yet, especially for permits and NSG. Tom Saad presented the idea that software may be the hold-up to states in using LRFR. Bryan Silvis will poll states at the Helena VOBUG to gauge interest in LRFR for NSG enhancement. This may be a user group directed enhancement.

Condition and System Factor Overrides

The Task Force will use the Helena VOBUG to solicit support. Depending on user group support, the Task Force will determine in October meeting how to proceed.

VI 10943-jd calculation (Mn/T) can be too conservative for shear calculations

The Task Force decided to suspend this item for the version 6.3 release. Depending on the scope of the enhancement, it may be released as a patch on 6.3 later this year.

VI 10990

This is an addition to the agenda. A TAG member reports a reporting discrepancy regarding composite stringers and non-composite floor beams. They would like to see the report modified to accurately describe the analysis. The Task Force agreed the report is not exactly right and will investigate for version 6.4.

Miscellaneous Topics

Specification implementation commentary

This is a continuation of a topic first introduced at the meeting in Hershey. The Task Force is generally in favor of providing the documentation as it should help clarify points of interpretation. A wholesale implementation of this idea will be evaluated for inclusion in version 6.4 during the Task Force meeting in October. Also in October, the Task Force will discuss whether this approach should be implemented in the current spec only or for all specs.

TAG meeting review

- ***MBE items not addressed in AASHTO engine***

The Contractor developed a document showing AASHTO MBE articles that are currently not addressed by the Virtis AASHTO engine. The FHWA would like articles 6A.6.9.3 and 6A.6.9.4 included in the document. The MBE articles not addressed in AASHTO engine document will be added to the VOBUG website and also sent to VOBUG registrants in blast email.

- ***VSE bugs, what should/will be done with them***

The fully functional AASHTO engine now does LFR and should replace VSE with version 6.3. The Task Force will gauge the volume of use among agencies at VOBUG and also ask those that use it if they plan to continue using it in the future. Pending the results of our poll at VOBUG, the Task Force will further evaluate during the October meeting. BAR7 states should also be polled. There are currently no plans to maintain or update VSE. The Virtis Vice President will address VSE in the business meeting at VOBUG (ballot item)

- ***Welds, splices and bolted connections, where do they fall in the long range plan?***

If this item generates significant interest at VOBUG, it will either get on the long or short range plan. The Task Force will gauge user interest at VOBUG before progressing this enhancement.



- **Review the maintenance items to determine when/how they can be incorporated.**

The Task Force will discuss these items at the October meeting and evaluate for possible inclusion within the 6.4 workplan.

- **Review the Reports Bucket and provide direction/timing.**

The Task Force wants to develop a reports TAG to address this issue. This item is deferred to the October meeting. The Task Force is looking to include it in the 6.6 workplan.

CalTrans “holistic” approach – update

The Contractor developed a draft response to CalTrans document entitled, “A General Approach to Development Load Rating Bridge Software”. This document will be forwarded to CalTrans for review. CalTrans asked that during their review of the document the Task Force consider what enhancements will need to be added to accomplish a more comprehensive load rating ability in the product. CalTrans also pointed out the value in considering the geometry first for definitions rather than just defining a bridge type. The Task Force agreed to keep CalTrans involved in the development of the 3D enhancements moving forward.

Product Performance Measures

This item is deferred to the BRIDGEWare joint session. See BRIDGEWare minutes agenda item BW-02.

OK DOT OKiePROS non-Virtis bridge concept

The Task Force agrees that concept B is the preferred approach.

OK DOT Gusset plate analysis (review of original estimate)

A handout was distributed. This is just an update at this time; there are no comments from the Task Force.

Memory and Performance

This is an addition to the agenda. The Contractor made significant memory and performance (e.g. run-time) gains during the Beta testing of Version 6.3. The Task Force would like to pursue continued improvements tying into current work. The Contractor is to determine which ideas already discussed have the greatest potential for the October meeting.

Work Plan

Future work plans

There have been several items mentioned today (and included within these meeting minutes) for possible

inclusion in the 6.5 workplan. No further discussion is needed at this time.

FHWA Update

Tom Saad (FHWA) discussed several items and sent the following in a separate email attachment.

FHWA delivered LRFR training (NHI Course No. 130092) in CT, VA and FLBO in the past 2 months and will be delivering training in PR, GA and ID through August. CTDOT has hosted the 2nd of 3 sessions which they have scheduled. Similar to many States, they are currently evaluating how to update and modify load rating and permitting practices within the State as a result of having to perform LRFR ratings for new bridges, and had been using BARS, historically.

Long-term Bridge Performance (LTBP) Program update: The current focus of the LTBP Program is to organize and host the key stakeholder committee meetings; the Executive Committee, three Expert Technical Groups, and State Coordinators’ meeting to gather insight and support for advancing the program into the implementation phase, upon completion of the initial 3 year pilot program. We did receive an inquiry into merging results of the 12-78 findings into the Bridge Portal, although this is just a concept at this time. The goal would be to marry the detailed design information in Virtis with the condition data in Pontis and the NBI.

At the AASHTO SCOBS meeting in Norfolk, the primary focus of the FHWA Bridge Engineers meeting was discussion of the implementation of the new NBIS Oversight procedures. FHWA Division Bridge Engineers will be spending a significant amount of time in the next 6 months conducting baseline evaluations of the 23 metrics included in the new program review process. State DOTs can expect to get a significant number of inquiries about NBIS performance until the DBEs complete the baseline assessment.

Reauthorization bills are being actively discussed, and Congressional leaders have indicated that the highway legislation may be a 2-year bill rather than a six-year bill.

Many Headquarters (6), Resource Center (2) and Division Bridge Engineer (6) vacancies have been filled recently, and although the FHWA is required to reduce staffing by 3% in the coming year, bridge engineer positions typically are not being eliminated, due to the demand and need for expanded bridge program oversight.



Marketing/Training

AASHTO Bridge update

Jim Ramsey (AASHTO) says an agency is looking for an evaluation copy of VIRTIS and may want a webinar as well. They are asking for specific training. Dean Teal and Amjad Waheed are proposing to give the training later this summer.

Two other agencies are interested in Virtis as well.

The Task Force would like to waive the VOBUG registration fee for agencies considering Virtis. Travel costs would not be reimbursed.

