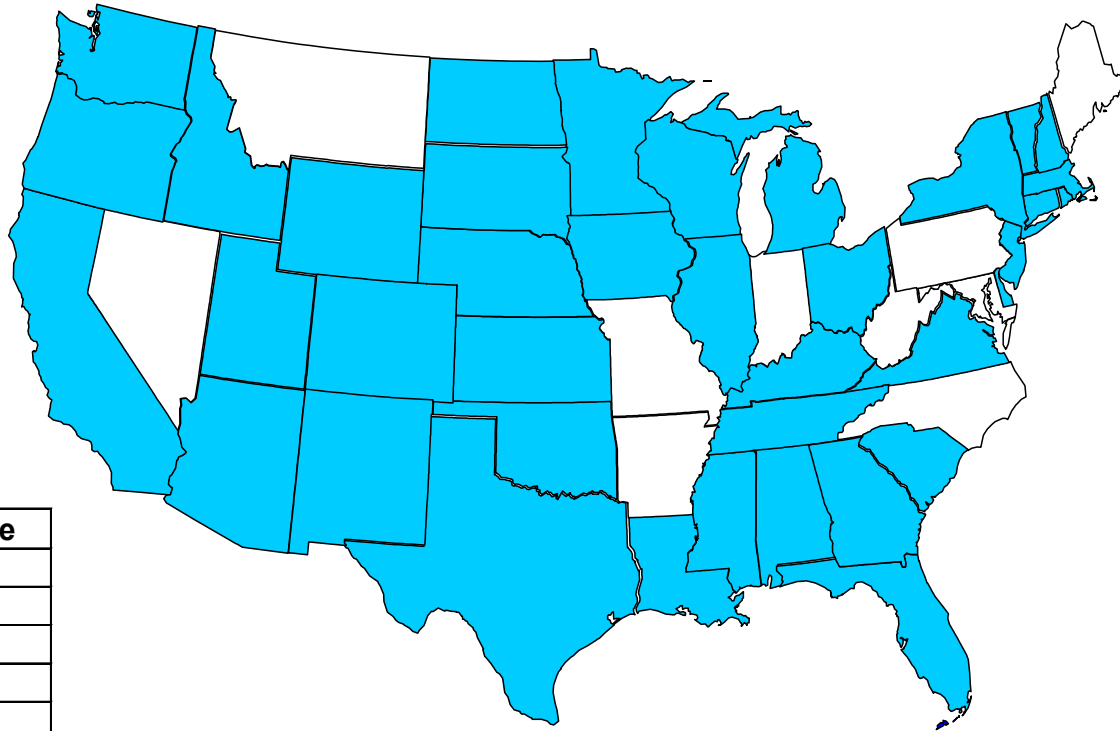
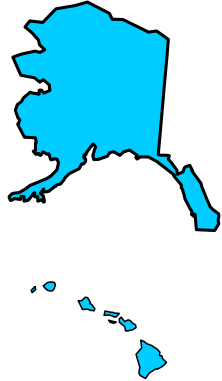


AASHTOWare Bridge Management Update



Bridge Management Licensees



County/City	State
Los Angeles Co	CA
City of Phoenix	AZ
Penn. Turnpike	PA
Richmond Metro Auth	VA
FHWA	DC

40 State Departments of Transportation
+ District of Columbia & Puerto Rico

Map Key	
	Non- Licensee
	Licensee

User Group Priorities

▶ TOP 5

Vote Rank	Total Votes	Count States	Priority Enhancement	States	FDS Status	Funding Status for FDS and Development	Estimated Level of Effort (T-shirt Size)	August 2020 Update
1	505	23	QA/QC Module	AK, CO, DE, FL, HI, ID, KY, MN, MS, NH, NJ, NM, ND, OH, RI, SC, SD, UT, VT, VA, WI, WY, PR	In Progress	Funded (SCDOT SU Project)	XL	Update: The large service unit project with SCDOT includes the development of QA/QC module. SCDOT plans to use a previous draft FDS as its starting point. The champion has been changed from KYTC to SCDOT as a result of SCDOT funding the FDS completion and development effort. This module will be designed/developed to fit SCDOT's needs but will be developed in a way to support core as much as possible. Funding will still be needed to integrate this solution within the core software assuming the Task Force approves for core integration.
2	428	21	Funding by Allocation Project Category	AK, CT, GA, HI, ID, IA, KS, MA, MN, NH, NJ, NM, ND, OH, OK, TX, UT, VA, WA, WI, PR	In Progress	Partially Funded (GADOT)	L	Update: The Task Force has funded the FDS development effort through its contract with Mayvue. The champions (VDOT and GADOT) have provided the use cases. Mayvue must now write the functional requirements using known information and use cases provided by the champions to draft the FDS and supply to the Task Force and other contributors for review. GADOT is interested in funding the development of this enhancement but other agencies are welcome to supplement the funding and/or funds the integration of the enhancement into core via a future release.
3	227	14	Multimedia Interface	AL, CO, HI, KS, KY, MN, NH, ND, OH, RI, SD, WI, WY, WY, PR	Complete	Funded (Task Force & State Contributions)	XL	Update: The Task Force selected multimedia enhancements as part of the 6.4 work plan project because it has been a higher priority enhancement within the user community for several years and it had an FDS that included 8 revisions. The 6.4 release will include numerous multimedia enhancements which was funded by the Task Force and state contributions. Mayvue is currently developing the enhancements and will provide to the beta testing TAG in the near term for testing. Stay tuned for multimedia enhancements in the 6.4 release.
4	226	10	VDOT - Ability to Schedule additional types of inspections with item 31	AL, AK, CA, FL, MA, MI, NM, VA, WI, WY	In Progress	Funded (SCDOT SU Project)	XL	Update: SCDOT's SU project includes requirements for the ability to schedule additional inspection types. SCDOT and Mayvue are currently working on documenting these requirements, page layout, and functionality for SCDOT. It is SCDOT's intent to design and develop this solution such that its core friendly and supports all agencies. This FDS will be reviewed by the Task Force and interested agencies when complete. A cost to integrate this enhancement into the core software will still be required if approved for core integration.
5	198	19	HI - Optimizer look ahead rule	AK, DE, GA, HI, ID, IA, KS, MA, MN, NH, NJ, NM, ND, OH, TX, UT, VT, WI, WY	In Progress	None	L	Update: the champion switched from Hawaii DOT to Texas DOT in July 2020. Mayvue is supporting TxDOT in defining the requirements of this enhancement. Several discussions have occurred; however, the Task Force and TxDOT are open to additional users to contribute to this effort. Please note, funding will need to be committed to support the development of this enhancement for a future BrM release.

User Group Priorities

▶ 6 - 20

Vote Rank	Total Vote	Count Stat	Priority Enhancement	States	FDS Status	Funding Status for FDS and Development	Estimated Level of Effort (T-shirt Size)	August 2020 Update
6	179	12	RI - Inspector Qualifications of all assets	AL, CO, ID, KY, MI, MS, NE, ND, RI, UT, WI, WY	In Progress	Funded (SCDOT SU Project)	L	Update: This enhancement is part of the SCDOT SU project that is ongoing. SCDOT is now the champion of this enhancement. Mayvue and SCDOT have created an FDS for bridge inspector qualifications. Upon approval of the FDS by SCDOT, the Task Force will review and determine if this enhancement is suitable for core integration and potentially include in a future BrM release.
7	169	13	Mobile Inspection	AL, CO, HI, IA, KY, MS, NM, ND, OK, TX, WI, WY, PR	N/A	Funded (Mayvue)	N/A	Update: The Task Force authorized Mayvue to design/develop a BrM mobile application due to user demands identified over the last several BrMUG meetings. Mayvue has worked over the last year to define the requirements and build the mobile application with user input along the way. Mayvue now has a mobile application available for use. Please contact mobile@mayvue.com to purchase or gather more information.
8	166	12	Clearance Tab	AK, CA, CO, ID, IA, KY, MS, NJ, RI, SD, UT, PR	In Progress	None	M	Update: A draft FDS is available (developed several years ago). The next step is for the champion and interested agencies to confirm the requirements in the FDS draft or document additional needs or revise requirements. Funding will be needed to move the enhancement forward to development after requirements are finalized. There are currently no funding commitments from the user community at this time. Additionally, this can be an enhancement for Task Force consideration to be funded and included in a future work plan.
9	155	13	Report Elements from Optimizer results	FL, GA, HI, IA, MA, MS, NJ, ND, OH, UT, VT, WA, PR	Not Started	None	XL	Update: The Task Force is awaiting requirements for this enhancement. This enhancement moved up the list from the 2018 priorities (was previously #25). Once the Task Force has requirements defined it can determine the path to move this enhancement forward. No known funding commitments to date. Next step is to get functional requirements from the champion and/or other interested agencies.
10	148	16	Utility Value and Health Index	AK, CT, GA, ID, KS, MA, MS, NJ, ND, OH, RI, TX, UT, VT, WA, WI	Not Started	None	S	Update: The champion has a prototype however the functional requirements need to be defined and documented. This enhancement was #9 during the 2018 BrMUG. No known funding commitments to date. Next step is to get functional requirements from the champion and/or other interested agencies.
11	145	11	Detailing Results by Optimization	AK, GA, IA, KS, MA, NH, NJ, OH, TX, UT, VT	Complete	Funded (AZDOT and Task Force)	M	Update: This enhancement was funded by AZDOT. The Task Force approved its integration into the core software and paid for this integration as part of the 6.4 work plan. Users will have this enhancement with the release of 6.4.
12	138	6	Allow Multiple Report Writers	CA, KY, NE, OR, VA, WA	Not Started	None	TBD (scope needs defined)	Update: Caltrans has made a working prototype of a SSMS (SQL Server Management Studio) Report Generator. The next step is to ensure this prototype works for the user community and its funded for core integration. If users are interested in funding this effort please contribute, otherwise, this will remain on the Task Force's list for potential enhancements for future work plans.
13	97	10	General Dashboards	AL, AK, CT, IL, KY, MS, NJ, OH, RI, SD	Not Started	None	TBD (scope needs defined)	Update: A champion or set of champions are needed to define the requirements for General Dashboards. This can be a wide range of functionality/visuals. Mayvue can create general dashboards; however, this needs to be aligned with the expectations of the user community.
14	85	6	Expanded Export/Import Options	AK, CO, CT, NH, VT, WI	Not Started	None	S	Update: The Task Force is awaiting requirements for expanded import and export options within BrM.
14	85	7	Training Videos (User Group will Form a Committee for Guidance)	AK, FL, KS, ND, OH, RI, PR	N/A	None	TBD (scope needs defined)	Update: The Task Force has authorized Mayvue to continue to make training videos based on recordings of beta testing meetings and presentation of new functionalities to the user community for releases. These are frequently posted on the BrM YouTube channel. Furthermore, the Task Force has authorized Mayvue to complete a training day just ahead of the 2020 BrMUG. Training topic requirements need to be defined by the user community to make specific/targeted training videos.
16	70	7	Performance Measures by Formula	AK, CT, MA, NJ, OH, TX, VT	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #26 on the priority list in 2018.
16	70	6	Project Completion Date by Year, More Detail, Open to Traffic	CA, CO, CT, MN, NJ, VT	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #29 on the priority list in 2018.
18	69	7	OR - Button to clean out database of junk	DE, ID, KY, MA, OH, OR, WA	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. 2019 was the first time this enhancement was on the user voted priority list.
19	65	4	CAL - Enhance security multi asset	CA, ID, IL, WI	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
20	58	6	OR - New inspection button on condition page and schedule inspection page	ID, KY, NH, OK, OR, WY	N/A	None	N/A	This enhancement is now overcome by events. SCDOT is adding an inspection workflow to BrM through its large SU project. This will create a new and improved inspection workflow from its current version in BrM.

User Group Priorities

▶ 21 - 35

Vote Rank	Total Votes	Count State	Priority Enhancement	States	FDS Status	Funding Status for FDS and Development	Estimated Level of Effort (T-shirt Size)	August 2020 Update
21	57	7	Tool-Tip Functional Update	AK, CA, FL, KY, OH, RI, UT	Not Started	None	M	Update: This is a possible enhancement that the Task Force can consider to be completed along with new coding guide changes (assuming sufficient funding is available to complete all required changes to remain compliant through the solicitation process).
22	55	7	VDOT - Optimization two different structure weights	GA, IA, MA, NJ, OH, VA, WI	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
23	53	3	CAL - Option to total defects to parent element	CA, KS, NH	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
24	45	5	Ability to Activate/Deactivate Elements	AK, KS, MN, VT, WI	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
25	44	8	Enhancing Mapping User Interface (Bounding Boxes, GIS Friendly)	CO, CT, KY, MS, ND, OH, RI, PR	In Progress	Funded (Task Force)	N/A	Update: The Task Force is currently considering giving Mayvue authorization to make general mapping improvements within BrM in an upcoming release. Mayvue has proposed some potential improvement areas and the Task Force is evaluating. If considered reasonable, the Task Force may authorize Mayvue to complete in a future project (e.g. 6.5).
26	30	2	CAL - Framework tunnels or other assets types for the elements	CA, ID	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
27	25	3	Multimedia for Tunnels	CO, ID, PR	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #29 on the priority list in 2018.
28	23	4	Need a Way for Admin. to View Current Users	CA, IL, KY, MS	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #32 on the priority list in 2018.
29	20	1	Enhance NBI Deterioration Modeling	IL	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #29 on the priority list in 2018.
29	20	2	VDOT - Ability to conceal elements that are not part of the inspection	CO, VA	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement. This enhancement was #32 on the priority list in 2018.
31	15	1	Batch File for Optimizer Configurations & Tools for Analysis	NJ		N/A	TBD / Unknown until scope is defined	Update: The Task Force has a prototype; however funding is needed to implement this into the core software.
32	10	2	Linked Element Deterioration	OH, VT	Not Started	None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
32	10	1	KY- Cross Sections as scheduling type of inspections	ID		N/A	N/A	Overcome by events.
34	5	1	3D Inspection	UT		None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.
34	5	1	Project Workflow	PR		None	TBD (scope needs defined)	Update: The Task Force is awaiting requirements for this enhancement.

BrM 6.3 – Current Available Release

- **Released February 2020**
- **Key Features**
 - Inspection Scheduler to assign and manage upcoming inspections
 - Component Level Deterioration to evaluate multiple deterioration profiles for each component of a bridge
 - Scheduled Processes to run certain BrM services at regularly scheduled intervals
 - Tunnel Work Candidates to capture maintenance needs for tunnels

Bridge Management 6.4 Release

- ▶ Anticipated Release at end of 2020
- Multimedia module enhancements:
 - Widget to more easily access multimedia files from within specific tasks
 - Better organization of UI as well as new fields and features
 - A foundation for integrating BrM multimedia with other multimedia platforms (e.g. ProjectWise)
- Addition of the remaining FHWA validation checks

Bridge Management 6.4 Release

- Addition of “Date Entered” and “Entered By” fields on the Tunnel Inspection page
- Integration of approved service unit customizations into core including policy rule weighted element condition states and the availability of an improved Optimizer log
- Usability enhancements and various maintenance improvements / bug fixes

Lifecycle Cost Analysis (LCCA)

Future Release (TBD)

- ▶ Scope includes enhancements to the LCCA module that will assist agencies in creating life-cycle plans that incorporate bridge profiles as part of a network analysis
- ▶ *Technical Advisory Group involvement on the front end*
- ▶ Outcome: More refined Life-Cycle Cost Analysis to allow agencies to create bridge level life-cycle plans that fit their specific practices and policies for any bridge
 - ▶ Agencies will be able to easily program work in the short term (5 years or less) or develop a long-term program (10, 15, 20, 50 years, etc.)
 - ▶ LCCA policies can be used to prevent the bridge from falling below a certain threshold

Bridge Management 7.0 – Looking Ahead

- Task Force Primary Focus is on changes required to stay compliant with new NBIS Regulations and the new NBI coding guide
- Currently developing plan for proposed changes to ensure timely delivery of BrM 7.0 to allow states time to implement ahead of FHWA deadlines

Bridge Management 7.0 – Looking Ahead

- Solicitation to support compliance with the proposed changes to the NBIS and the new NBI coding guide
 - One time cost
 - Part of AASHTO model to keep license fee cost-effective and economical
 - Ensure modeling component will continue to operate and adapt to historic data and new data in required format
 - Leverage opportunity of improving asset management process while adapting to new proposed data sets

Bridge Management 7.0 – Looking Ahead

- BrM 7.0 to also include deferred maintenance items and usability enhancements
 - Deferred database maintenance
 - Merge bridge into cross asset
 - Multi-thread optimization process
 - Tracking historical changes on a granular level
 - Workflow improvements
 - Dashboards



Task Force members

Chair	Todd Thompson	South Dakota
Vice Chair	Eric Christie	Alabama
Member – BrM	Beckie Curtis	Michigan
Member – BrM	Craig Nazareth	Rhode Island
Member – BrM	Kent Miller	Nebraska
Member – BrM	David Hedeem	Minnesota
FHWA Liaison – BrM	Derek Constable	FHWA
Member – BrD	Dean Teal	Kansas
Member – BrD	Mark Bucci	Louisiana
Member – BrR	Joshua Dietsche	Wisconsin
Member – BrR	Vinacs Vinayagamoorthy	California
Member – BrR	Mike Johnson	Idaho
FHWA Liaison – BrDR	Tom Saad	FHWA

Thank You!

- ▶ Any Questions?
 - ▶ Contact –
 - ▶ Eric Christie –
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