

AASHTOWare BrM 6.4 Release Notes

Key Features and Enhancements

- Redesigned the Multimedia module.
 - Updated the *Inspection > Multimedia* task to use the redesigned Multimedia module.
 - Added the *Admin > Security > Multimedia* task to manage the role-based permissions for multimedia contexts and subfolders.
 - Added the *Admin > General Config > Multimedia* task to configure various settings for the Multimedia module.
 - Added a Multimedia widget that can be added to any new or existing task from the Visual Form Editor.
- ([BRMSD-3747](#)) Updated the Program Optimizer to allow for multi-year, manually funded (funding allocated) projects.
- Updated the *Programs > Assign Projects* task to allow for the assignment of projects to specific program scenarios.
- Added the ability to enable/disable the optimizer log files, control the number of alternative logs maintained in the system, and set the number of rows of data permitted in each alternative log.
- Added the ability to download optimizer log files, including the web output log and the alternative log, on the *Programs > Program Planning* task.
- Added a Weighted option to the Percent Condition State field for the Element Condition State action type on the *Admin > Modeling Config > Network Policies* task.
- Updated the element validation in BrM to be compliant with the latest FHWA element validation rules.
- Added the *Bridges > Mapping > Enhanced Mapping* task that allows you to view surrounding bridges on a map within a particular area of the selected bridge. You can also draw your own area from which to view surrounding bridges.

Bug Fixes and Miscellaneous Updates

- ([BRMSD-105](#)) Fixed a bug that caused an error on the *Manage Filters* task when attempting to delete a filter.
- ([BRMSD-236](#)) Fixed various calculation errors within the insp010 report.
- ([BRMSD-317](#)) Fixed a bug that displayed an inaccurate value for the "Number of Culverts" in the insp010_bridge_condition_summary report on the *Reports > Generate* task.
- ([BRMSD-471](#)) Fixed a bug that caused the notes to duplicate between the Inspection and Bridge contexts on the *Inspection > Multimedia* task.
- ([BRMSD-580](#)) Fixed a bug that allowed duplicate child elements on the *Tunnels > Tunnel Inspection* task.
- ([BRMSD-694](#)) Fixed a bug that caused errors when attempting to update and save the relative weight or health index coefficients of certain elements on the *Admin > Modeling Config > Element Spec* task.
- ([BRMSD-1518](#)) Updated the inspection report selection options when generating reports on the *Reports > Generate* task to ensure the latest inspection data can be pulled when selecting multiple structures.



- (**BRMD-1648**) Fixed a bug where hiding a task on the *Admin > General Config > Standard* task also hid the task from being located and modified on the *Admin > General Config > Visual Form Editor* task.
- (**BRMSD-1668**) Fixed a bug that caused BrM to crash when attempting to delete an in-use Structure Weight context formula from the *Admin > Modeling Config > Advanced Formulas* task. The fix now correctly displays a popup message to inform the user that the formula is in use and cannot be deleted.
- (**BRMSD-2221**) Fixed a data issue in the LRReport caused by Oracle case-sensitivity.
- (**BRMSD-2457**) Removed duplicate wording in the note under the Follow-up Actions of the *Admin > Modeling Config > Network Policies* task.
- (**BRMSD-3111**) Fixed a bug that caused the Minimize Cost option of the Program Optimizer to exclude or incorrectly select projects.
- (**BRMSD-3112**) Fixed a bug that prevented the use of the Shift and Ctrl keys to select multiple reports on the *Admin > Security > Reports* task.
- (**BRMSD-3113**) Updated line graphs on the *Admin > Modeling Config > Executive Summary* task to allow for user tables to be used as groupings.
- (**BRMSD-3114**) Updated the user lists in the *Admin > Security > Groups* and *Admin > Security > Roles* tasks to indicate inactive users with greyed out text and "(disabled)" behind the user names.
- (**BRMSD-3115**) Updated the Percentage Good line graph on the *Admin > Modeling Config > Executive Summary* task to correctly display a percentage instead of total deck area.
- (**BRMSD-3142**) Corrected rules on the *Admin > General Config > Validation Editor* task to ensure that necessary under records no longer show as null.
- (**BRMSD-3147**) Fixed a bug that prevented the database trigger TRG_BRIDGE_PRECISE_LATLON from properly handling null latitude and longitude values in an Oracle database.
- (**BRMSD-3201**) Added an option to include non-FHWA elements for NBE imports and exports on the *Gateway > Import* and *Gateway > Export* tasks.
- (**BRMSD-3205**) Updated the *Admin > Modeling Config > Network Policies*, *Admin > Modeling Config > LCCA Policy Rules*, and *Admin > General Config > Equation Editor* tasks to allow a maximum of 10 conditions per action/rule.
- (**BRMSD-3225**) Fixed a bug that prevented the use of the Enter key for quick filters on the Bridge List when filtering a column with custom header text.
- (**BRMSD-3268**) Updated the *Admin > General Config > Data Dict* task to allow a null to be established in the Sys. Default field by entering "(NULL)" or "(null)."
- (**BRMSD-3322**) Fixed a bug that caused errors when attempting to insert the calendar control into a page in the Visual Form Editor.
- (**BRMSD-3326**) Fixed a bug that prevented the use of the Override Table Name and Override Column Name fields to override parameters for non-bridge assets on the *Admin > General Config > Visual Form Editor* task.
- (**BRMSD-3435**) Updated the *Admin > Modeling Config > Advanced Formulas* task to accept Euler's number.
- (**BRMSD-3452**) Fixed a bug that prevented the removal of structures with multiple structure units.
- (**BRMSD-3454**) Improved the error handling of advanced formulas to properly detect and issue an error for positive infinity, negative infinity, and non-real numbers.
- (**BRMSD-3470**) Fixed a bug that prevented USERWAY data from carrying over to the new structure when using the *Bridges > Copy Struct* feature.

- ([BRMSD-3471](#)) Updated tunnel structure units to ensure that when deleting a structure unit on the *Tunnels > Tunnel Inventory* task, all elements included with the structure unit are also deleted.
- ([BRMSD-3487](#)) Fixed a bug that prevented navigating to other inspections on the *Inspection > Condition* task after navigating to a locked inspection with no element data.
- ([BRMSD-3538](#)) Fixed a bug that prevented scheduled tasks for custom reports from properly generating the reports on the *Admin > General Config > Scheduled Tasks* page.
- ([BRMSD-3545](#)) Fixed a bug that prevented access filters from properly filtering out tunnels on the *Tunnels > Tunnel Inspection* task.
- ([BRMSD-3558](#)) Fixed a bug that prevented some pages on the Visual Form Editor from saving if a Calendar control was added.
- ([BRMSD-3559](#)) Fixed a bug that prevented some pages on the Visual Form Editor from saving if a Notes control was added.
- ([BRMSD-3561](#)) Fixed a bug that caused checkbox selections for multiassets to fail to persist across pages.
- ([BRMSD-3565](#)) Fixed a bug that incorrectly used bridge count instead of deck area percentage in the program optimizer when running a program with a surface-based performance measure.
- ([BRMSD-3567](#)) Fixed a bug that caused errors on the *Analysis > LCCA* task when attempting to run an analysis after making edits to actions and policy rules.
- ([BRMSD-3589](#)) Updated the functionality of the Inspection Type filters on the *Bridges > Inspection Type* task to display only the selected inspection types for all applicable bridges.
- ([BRMSD-3590](#)) Fixed a bug that prevented the addition of a work item to multiple projects.
- ([BRMSD-3591](#)) Updated the Network Policies list boxes to sort alphabetically on the *Programs > Create/Edit Programs* task.
- ([BRMSD-3594](#)) Fixed a bug that prevented protective systems from applying to elements in the LCCA and optimizer results when the protective system was not specifically assigned a parent element on the *Admin > Modeling Config > Benefits* task.
- ([BRMSD-3597](#)) Fixed a bug that caused the map locations of bridges to be incorrect when newly added to multiple groups at the same time on the *Bridges > Inspection Assignment* task.
- ([BRMSD-3605](#)) Fixed a display issue for Firefox and Chrome browsers on the *Admin > General Config > Visual Form Editor* task.
- ([BRMSD-3640](#)) Fixed a bug that caused an error on the *Bridges > Inspection Assignment* task that prevented it from loading.
- ([BRMSD-3647](#)) Updated how various browsers handle local/network files and the viewing of thumbnail images on the *Inspection > Multimedia* task and the Bridge List.
- ([BRMSD-3731](#)) Fixed a bug that incorrectly truncated fields on the *Inspection > Inventory* pages when they included spaces at the beginning of the entry.
- ([BRMSD-3743](#)) Removed old references to the eleminsp table on the *Admin > Modeling Config > Advanced Formulas* task.
- ([BRMSD-3767](#)) Fixed a bug that caused the optimizer to stall and error when attempting to optimize a program of more than 30,000 bridges.
- ([BRMSD-3819](#)) Fixed a bug that prevented the creation of new defects on the *Admin > Modeling Config > Element Spec* task because unnecessary fields were required before saving but were hidden.

- (**BRMSD-3823**) Fixed a bug that prevented budget distribution in the program optimizer when there is only one segment and it is in perfect condition.
- (**BRMSD-3839**) Updated the dropdowns on the *Programs > Program Comparison* task to expand to fit long program and scenario names.
- (**BRMSD-3847**) Fixed a bug that caused upper/lowercase inconsistencies between a filter and the database on the *Bridges > Manage Filter > Edit Filter* task.
- Updated the structure unit column's tooltip on the *Inspection > Work > Work Candidates* task to display the correct table.column information.
- Updated the parameters on the *Programs > Scenario Explorer* task to include an "ALL" option for selecting segments.
- Fixed a bug that caused tabs hidden with the PON_NAV_TAB.VISIBLE_IND setting to revert back to visible after running a migration script.
- Fixed a bug that incorrectly distributed more funds than available on the *Programs > Funding Allocation* task when using the Distribute Evenly option.
- Improved the Excel spreadsheet download for several pages by removing the warning when opening and updating the appearance of the displayed information.
- Updated the Program Optimizer to provide more incremental updates to the progress bar to better communicate the status of the optimization as it runs.
- Made performance improvements to the optimizer.
- Updated the APIACCEPTSFILES option on the *Admin > General Config > Options* task to use a dropdown selection rather than a blank text field.
- Fixed a bug on the *Admin > General Config > Visual Form Editor* task that incorrectly caused the selected tab to clear out/change when switching between selected subtasks that do not have the same parent task.
- Fixed a bug that was preventing the *Inspection > Condition* task from properly validating if changes have been made and informing the user of their options when attempting to navigate away before saving.
- Fixed a bug on the *Admin > General Config > Visual Form Editor* that removed the wrong tab when attempting to delete a tab from the system.
- Updated the NBE import on the *Gateway > Import* task to accept the change in the FHWA labeling of the file from FHWAElement to FHWAELEMENT.
- Updated the *Programs > Program Planning* task to disable the optimizer if a network policy and/or subdivision profile filter segment are not assigned to the selected program on the *Programs > Create/Edit Programs* task.
- Fixed a bug that caused the application to crash when selecting a bridge using the "No Category" project category on the *Projects > Create/Edit Project > Query* task.
- Fixed a bug that was applying benefits not called by an action on the *Analysis > LCCA* task.
- Limited the maximum allowable Override Budget on the *Programs > Funding Allocation* task to avoid errors and ensure funds can be distributed evenly.
- Updated the Minimize Cost feature of the optimizer to better filter alternatives that meet the cost minimization goal.
- Fixed a bug that was causing "no caption" to display for labels that were previously hidden and then unhidden on the *Admin > General Config > Visual Form Editor* task.

- Fixed a bug on the *Admin > General Config > Manage Asset Types* task that was causing console errors and preventing proper validation errors from showing when attempting to save after clearing the Identification Column checkbox.
- Fixed a bug that prevented saving on the *Inspection > Load Rating* task when using Firefox or Internet Explorer 11.
- Fixed a bug that caused errors on the *Tunnels > Inventory* task when attempting to change the structure units' Default checkboxes.
- Fixed a bug that caused the system default parameter value for a given dropdown field in the Data Dict to become out of sync with the actual default value displayed in the dropdown field in BrM.
- Added a spinning wheel to the *Admin > Mapping > Sync Mapping* task when syncing bridges to indicate the action is processing.
- Fixed a bug that was preventing the *Admin > General Config > Manage Asset Types* task from indicating when the page has been modified and not yet saved.
- Fixed a bug that was causing reports with an "as of date" to fail to generate from *Admin > General Config > Scheduled Tasks*.
- Removed the asterisks that appeared by default in the Option Value field of the EMAILSMTPUSERPASSWORD option on the *Admin > General Config > Options* task.
- Fixed a bug that was causing console errors on the *Admin > General Config > Scheduled Tasks* task when configuring a Report Generation task using the specific structure radio button.
- Fixed various broken help links in notes modals throughout BrM.
- Fixed a bug that failed to send email messages to all team members of an assignment on the *Bridges > Inspection Assignment* task when at least one team member did not have a valid email address assigned to their user account.
- Fixed a bug that prevented the use of a layout with the pon_insp_group.name table column on the *Bridges > Inspection Assignment* task.
- Fixed a bug that caused security console errors when clicking the Select All Unfiltered Markers link in the Manage Bridges in Group map view of the *Bridges > Inspection Assignment* task.
- Added the INSPDATE field as an available Identification Column on the *Admin > General Config > Manage Asset Types* task.
- Updated the UI and functionality of the *Admin > Modeling Config > Cost Index* task to adhere to new BrM design standards.
- Increased the complexity of the default BrM password to improve security.
- For the Program Optimizer:
 - Updated the results for the Benefit/Cost and Cost/Benefit columns to no longer scale up or down by 1000. The calculations remain accurate, but the results are now correctly displayed.
 - The log now displays "Do Nothing or No Name" instead of a blank entry for the Combination Name column.
- Fixed a bug that caused the *Tunnels > Tunnel List* task to crash when Data Caching was turned off in the web.config file.
- Fixed a bug that prevented the ability to fix errors on the *Inspection > Condition* task when the inspection was in the locked status.

- Fixed a bug that caused BrM to crash when attempting to access the *Tunnels > Tunnel List* task when Data Caching is turned off in the web.config file.
- Fixed a bug that caused data loading failures for custom fields of assets created on the *Admin > General Config > Manage Asset Types* task.
- Updated the element validation checks on the *Bridges > Validate* task to match FHWA standards.
- Added Date Entered and Entered By fields to the *Tunnels > Tunnel Inspection* task.
- Updated the *Manage Filters > Edit SQL* task to allow up to 3999 characters and to display the current characters amount on the page.
- Fixed a bug that caused BrM to crash on the *Analysis > Utility Value* task when using the base value formula from the *Admin > Modeling Config > Advanced Formulas* task.
- Fixed a bug that caused an error on the *Admin > Modeling Config > NBI Conversion Profiles* task when attempting to run the Network NBI Rating Distribution estimate for an individual component.
- Updated the *Gateway > Import* task NBE XML import to no longer allow 0 Total Qty values.
- Fixed a bug that caused controls in the *Admin > General Config > Visual Forms Editor* task to extend too far in size when grouped with a multiline textbox.
- Updated JQuery to version 3.5.1.
- Updated error and timeout handling on the *Programs > Scenario Explorer* task to include a loading icon when data is still loading into the graphs.
- Fixed a bug that prevented the MobileBridgeCheckInOut/CheckinBridge API endpoint from working successfully.
- Fixed a bug that caused the optimizer's costs to not match estimated project costs.
- Fixed a bug that caused newly created projects to default to an additional cost of 20%.
- Fixed a bug that failed to return an error message when attempting to save on the *Inspection > Condition* task after entering invalid data in the Unrepaired Spalls field.
- Fixed a bug that prevented assigning, unassigning, or deleting projects to programs with the word or consecutive letters "ALL" in their name due to incorrect filtering.
- Fixed a bug that incorrectly displayed values as percentages instead of dollars when visiting the *Programs > Funding Allocation* task for the first time after creating a new program.
- Updated the *Programs > Funding Allocation* task to not allow a budget distribution greater than 100% of the budget.
- Fixed a bug that was causing console errors on the *Projects > Create/Edit Project > Management* task.
- Updated the UI and functionality of the *Admin > General Config > Vehicle Defs* task to match updated BrM pages.
- Fixed a bug that incorrectly calculated the percentage poor by count numbers on the *Programs > Executive Summary* task.
- Fixed a bug that incorrectly displayed percentage poor by count in graphs that should be percentage poor by area on the *Programs > Executive Summary* task.
- Fixed a bug that prevented the selection of custom asset types in the AssetWorkCandidate custom control.
- Updated the Optimizer to only pull the last element inspection rather than all previous element inspections.

- Fixed a bug that prevented user role changes on the *Admin > Security > Roles* task from immediately taking effect.
- Fixed a bug that failed to remove associated programs and projects on the *Projects > Manage Funding > Create/Edit Funding Sources* task when deleting a funding source.
- Fixed a bug that allowed invalid special characters to be included in the header names on the *Bridges > Manage Layouts* task.
- Fixed a bug that prevented the use of certain allowable special characters in the header names on the *Bridges > Manage Layouts* task.
- Fixed a display issue with the BrM logo in the application.
- Fixed a but that prevented the deletion of programs with scenarios.
- Added an option to filter the *Programs > Assign Projects* task table by scenario.
- Updated the *Admin > Modeling Config > Benefit Groups* task to no longer permit benefit groups to have the same name.
- Updated the *Projects > Create/Edit Project > Management* task to disable the Year Frozen checkbox when a Target Year is not specified for the project.
- Updated the Asset Selector control on the Visual Form Editor to ensure that when creating a new asset on a created page, the asset's non-nullable fields are required to be completed.
- Fixed a bug that caused console errors when including spaces in the numeric-only fields on the *Inspection > Inventory* tasks.
- Fixed a bug on the *Admin > Modeling Config > Action Defs* task that did not include options with null values in the Action Types dropdown.
- Fixed a bug that caused the AsOf function to be missing from subreports 9 and 10 of the 23 Metric As of Date report.
- Added additional columns and updated the order of the columns in the table on the *Programs > Assign Projects* task.
- On the *Programs > Assign Projects* task, added a Layout selector for the projects grid and updated the Start Date and Create Date fields to display in MM/DD/YYYY format.
- Fixed a bug that failed to populate the Current Date field with the inspection date when the Routine inspection type was selected on the *Tunnels > Tunnel Inspection* task.
- Fixed a bug that caused an infinite loop when running the Oracle database create script.
- Fixed multiple import bugs and on the *Gateway > Import* task for importing .zip files, NBI files with an invalid date, and .txt files.
- Fixed a bug that prevented setting read-only security on the *Tunnels > Tunnel Work Candidates* task.