



Applied Research Associates



## Release Notes

Pavement ME Deflection Data Analysis and  
Backcalculation Tool (Build 1.0.6)

*December 4<sup>th</sup> 2020*



# Features

1. Update BcT for Pavement ME Design v2.5.5 Update the BcT to be compatible with v2.5.5. Exported .dgp file can be open with Pavement ME Design v2.5.5.
2. Sensor Spacing Configuration User can save and load sensor spacing values from a pre-defined format for different types of FWD files.
3. Maintain Structure Definition Keep segmentation changes when navigating to different screens in the software. If user has defined and saved structure definition successfully (all structure definition condition checks passed), when user navigate back to segmentation page and adjust segmentation decisions, structure definitions are kept with the following rules: Segment A B C

Action	Segment Result	Structure Definition Data Preserve Logic
Delete B	A C	Structure definitions are kept, B merged into A
Shift the segment line between A and B	A B C	Structure definitions are kept the same
Add a new segment line inside A	A D B C	Structure definitions are kept, F has same definitions as A

4. Maintain Segmentation Changes with History User can use "Undo", "Redo", "Reset" to modify segmentations with all segmentation actions record. User is able to revert to any point of segmentation decision during one session of backcalculation process.
5. Thickness File Import User can load thickness data file to use with BcT for thickness-based segmentation in a pre-defined format.
6. Add Thickness Based Segmentation Capability BcT now allows user to segment on either deflections or deflections along with thickness. If user loads the thickness data for each station to the BcT, the application will display the thickness segmentation plot and allow user to defined layer information prior to structure definition. Layer information defined by the user during thickness segmentation step will automatically apply to structure definitions for all segments to avoid redundant typing.
7. Segmentation Line Deletion User is able to use mouse right click on a segment line to remove/delete that segment line.
8. Segmentation Line Edit User is able to use the data table on the right side in the segmentation step to edit the station boundaries for segments lines modification.



9. Show Values for x, y in Plot User is able to hover over data points in deflection, segmentation, backcalculation to see values at each station.
10. Uniform or customizable x-scale on graphs Charts are applied with zoomable horizontal scroll and all charts in the same page that have the same range of axis will be zoomed simultaneously.
11. Alter the Backcalculation page to show three tabs The Backcalculation page has 3 tabs: Modulus and RMSE, Layer Compensation, Depth to Bedrock
12. Structure definition should contain a depth to bedrock checkbox User is able to use a "Has Stiff Layer" flag to indicate if the Bedrock layer is present. If this checkbox is selected, the last layer will be Bedrock and need to be filled with Bedrock information. If user selected "Bedrock" as the layer type for the last layer, this flag will also be updated to indicate stiff layer is present. This flag will affect whether EverCalc estimates the thickness of the last subgrade layer above Bedrock layer.
13. Combine the three segmentation pages into a single segmentation page The Preliminary Segmentation, Statistical Segmentation, Final Segmentation tabs are now combined into a single segmentation page. All previous segmentation charts display (preliminary/statistical) are preserved and integrated in the final segmentation page.
14. Create an output file after the backcalculation process Allow a .csv to be outputted for EverCalc data in a user friendly format.
15. Report backcalculated AC moduli at a reference temperature of 70 deg F User will be able to use any standard temperature other than the 77 deg F default value used by EverCalc.
16. Facilitate load transfer efficiency analysis
17. For reporting, be able to normalize the test load to the target drop load If user has input target load levels for each drop in the first step "Read FWD Files", user will be able to export normalized deflection values for each drop normalized to the target load level user has input.
18. Implement MDB (Microsoft Access) import utility Allow MDB format as one of the source format during import.
19. Integrate BcT with MDB format data Parse and integrate .mdb format for FWD data.
20. Enable direct navigation to export folder in after data exported Add navigation to export folder in export step.



## Contact Information

If you have any questions regarding these release notes, or regarding the ME Design software, please contact the ME Design Support Team at:

The ME Design Support Team

Email: [pavementmedesign@ara.com](mailto:pavementmedesign@ara.com)

Phone: 1-877-500-3496 or 217-356-4500

Monday through Friday

8:00am – 5:00pm CST