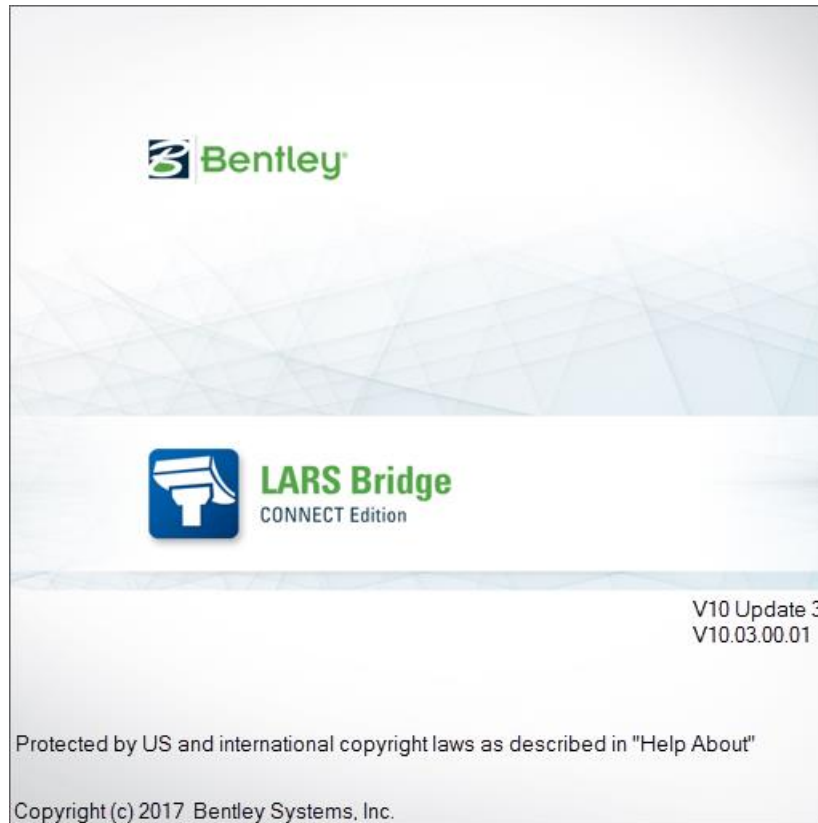


LARS Bridge CONNECT Edition V10 Update 3 Release Notes



Description

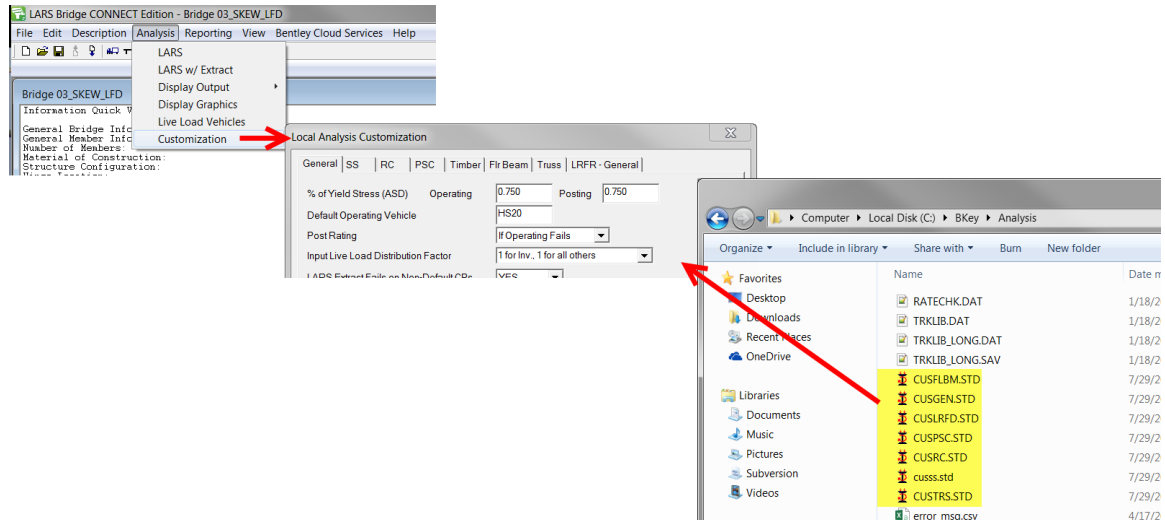
LARS Bridge CONNECT Edition V10 Update 3 is a maintenance release with several enhancements and bug fixes as described below.

The following enhancements are included in this release:

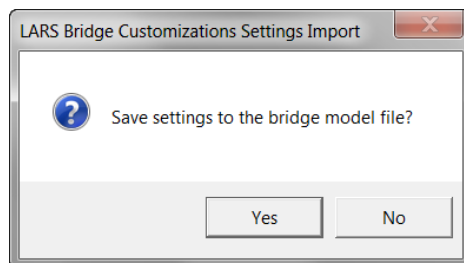
- LARS customization settings may now be saved directly into the bmd files.
- LARS Manager may be used to edit Global analysis Customization setting files.
- LARS Manager may be used to quickly update and save customization settings on multiple BMD files.
- Floorbeam ratings are now computed at all checkpoints.
- Added rating summary for all truss members into Member Summary (TABULAR) report FLXSMT.LIS.
- Simple span beams with end fixity may now be sent through transfer file (XFR) for processing with SUPERLOAD.
- Several bug fixes

Enhancements:

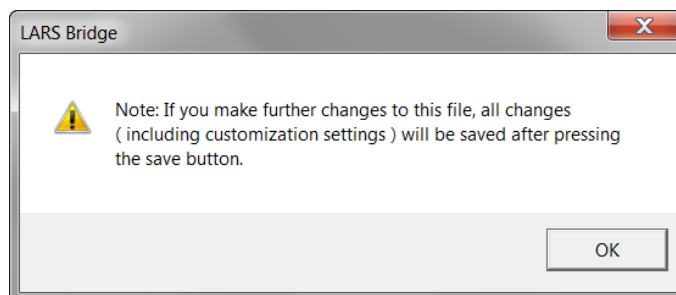
- **LARS customization settings may now be saved directly into the bmd files.**
The previous functionality of LARS would populate the data within the LARS Analysis Customization setting GUI based on the global settings contained within the *.STD files located in the c:\bkey\analysis folder:



The new LARS Bridge will populate this customization data in the same way for previously created files, however, the user now has an option immediately after opening to save the settings into the BMD file:



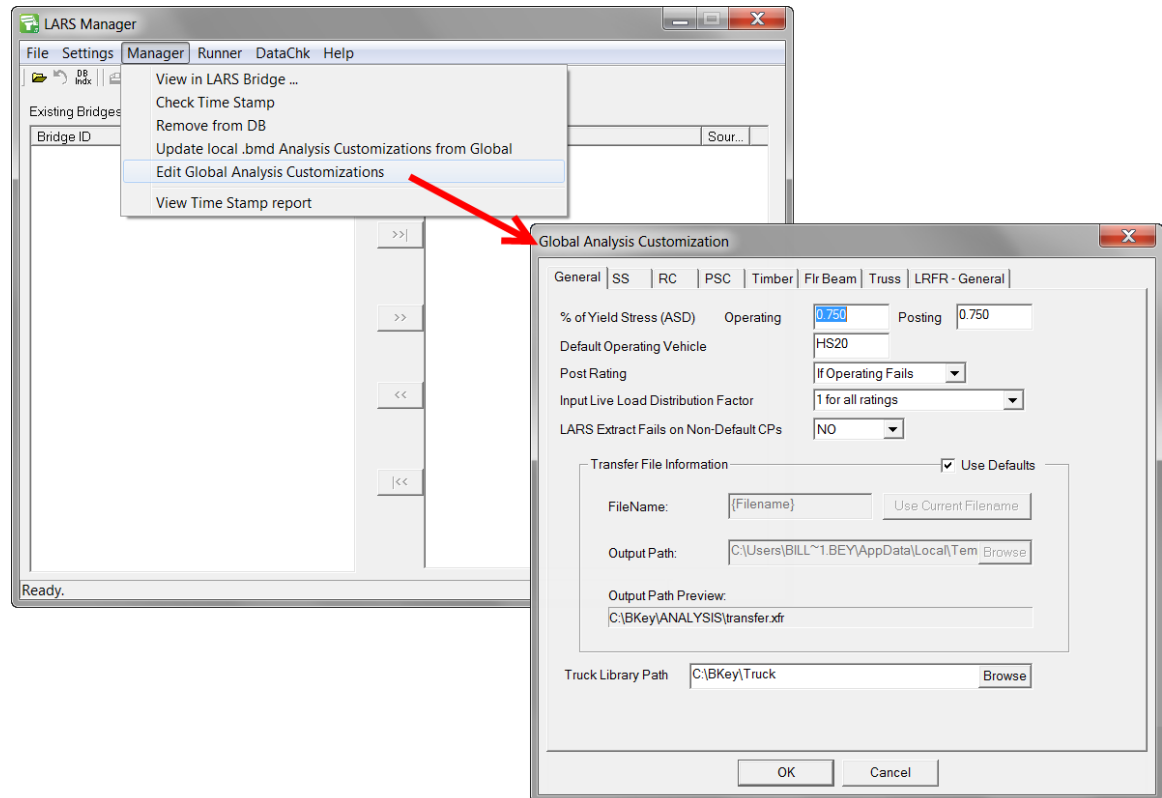
If the user selects **YES**, the customization settings are saved in the file, if **NO** is selected the following message will appear:



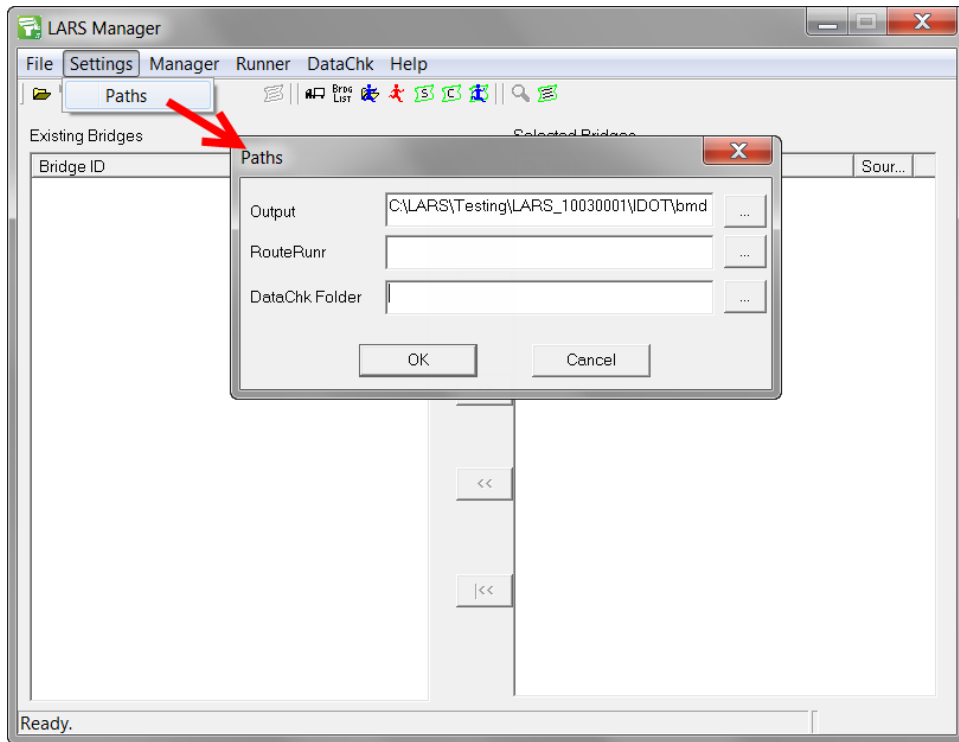
The file may continue to be used, however, any further changes to the file (including customization settings) will be lost unless the file is saved.

When customization data has been stored within a BMD file, this data will be used upon subsequent reopening of the file and the *.STD file settings will not be used. The *.STD files remain as general default data when creating new files or opening old files without the customization data saved in them, and are also used as settings with LARS Export. Multiple BMD files may be converted to the new format by use of LARS Manager, discussed next.

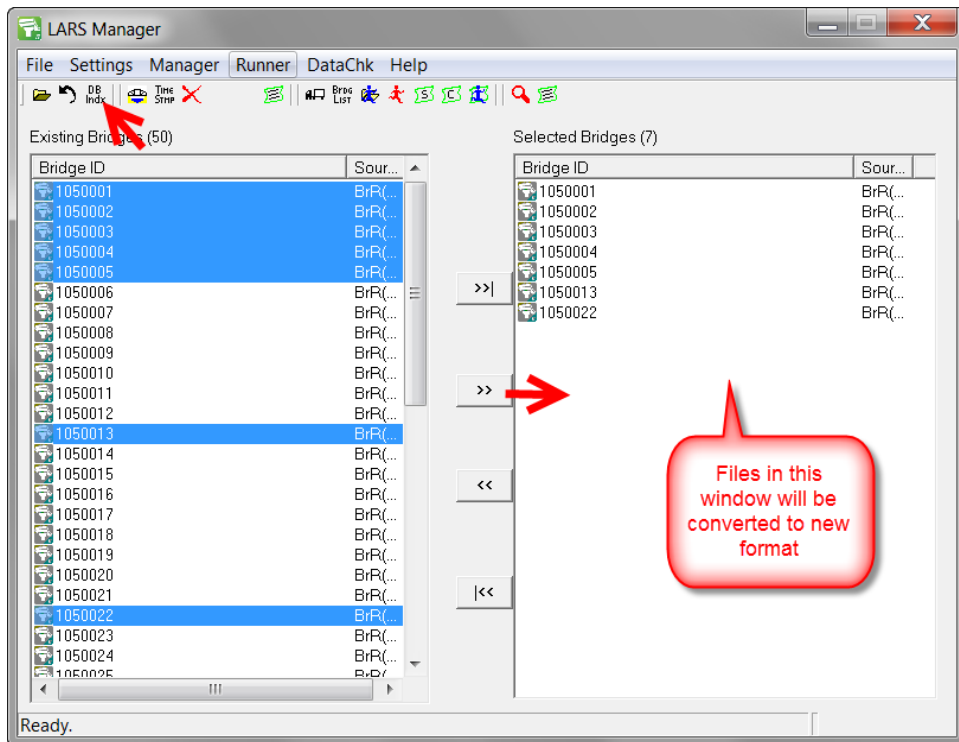
- **LARS Manager may be used to edit Global Analysis Customization setting files.**
The *.STD customization files may be edited using LARS Manager. Open LARS Manager and select *Edit Global Analysis Customizations* under the *Manager* menu item to launch the *Global Analysis Customization* input screen. Edit the settings as desired and the settings will be automatically saved.



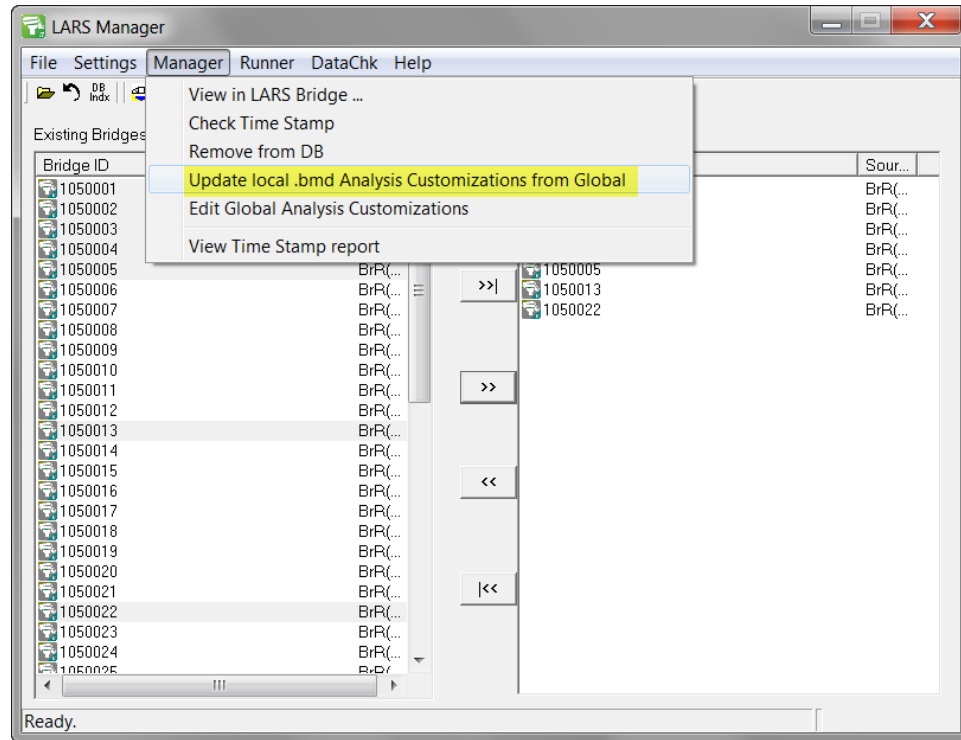
- **LARS Manager may be used to update and save customization settings on multiple BMD files quickly.**
When it is desired to update multiple BMD files to have the customization settings stored within them, it may be advantageous to use LARS Manager for this task. Prior to doing this it is recommended to BACK UP YOUR FILES FIRST. Open LARS Manager and select *Paths* under the *Settings* menu item to launch the *Paths* input screen. Set the Output path to the folder containing the BMD files to be updated:



Press the *DB Indx* button to populate the list of bmd files. Select desired files to be converted and push the selection into the right window:



Select *Update local.bmd Analysis Customizations from Global* under the *Manager* menu item to import the customization settings into the specified files.



- **Floorbeam ratings are now computed at all checkpoints.**
LARS will now compute floorbeam ratings at all tenth checkpoints on a floorbeam. Superload transfer files will continue to rate floorbeams at default checkpoints only.
- **Added rating summary for all truss members into Member Summary (TABULAR) report FLXSMT.LIS.**
The Member Summary (TABULAR) report FLXSMT.LIS now contains summary data for all members of a truss:

Mem ID	Truck	Rating (Tons)				Rt
		INV	Contr	OPR	Contr	
		Type	Type	Type	Type	
1 L OL 2	H15	24				
	P1S4			44		
	INS2	28		46		29
	INS3	28		46		29
1 L OU 1	H15	47				43
	P1S4			85		
	INS2	68		90		61
	INS3	68		90		61
1 U 1U 2	H15	31				29
	P1S4			48		
	INS2	36		51		35
	INS3	36		51		35
1 U 1L 2	H15	17				18
	P1S4			39		

- Simple span beams with end fixity may now be sent through transfer file (XFR) for processing with SUPERLOAD.

Simple span beams that have either (or both) ends fixed will now have the fixity effect sent through the XFR files for use by Superload. Previously this was only done on continuous spans.

Structure Configuration - Stringer / Girder - Span

Spans

Number of Spans: ☐ Symmetrical

Span Number: Fixity:

Span Length (ft.):

Span	Length
01	18.0000

LRFD Live Load Distribution Factors

Bug fixes:

- Corrected the usage of beam stability factor C_L for timber beam capacity with AASHTO equation 8.6.2-1; factor was not considered previously.
- Corrected the timber data echo report for Size Factor (C_f) and Wet Service Factor (C_m).
- Corrected the single-lane live load distribution factor calculation for exterior beams of adjacent box beam bridges.
- Corrected problem with the debonded strand area not always matching the specified value. Differences were not major, but can cause a slight variance in capacity results. LARS considers debonded strands as negative area, so when this is used – make sure that the corresponding bonded strand is also present so that the two areas will cancel each other out.
- Corrected occasional problem that occurred with non-composite stringers causing no capacity.