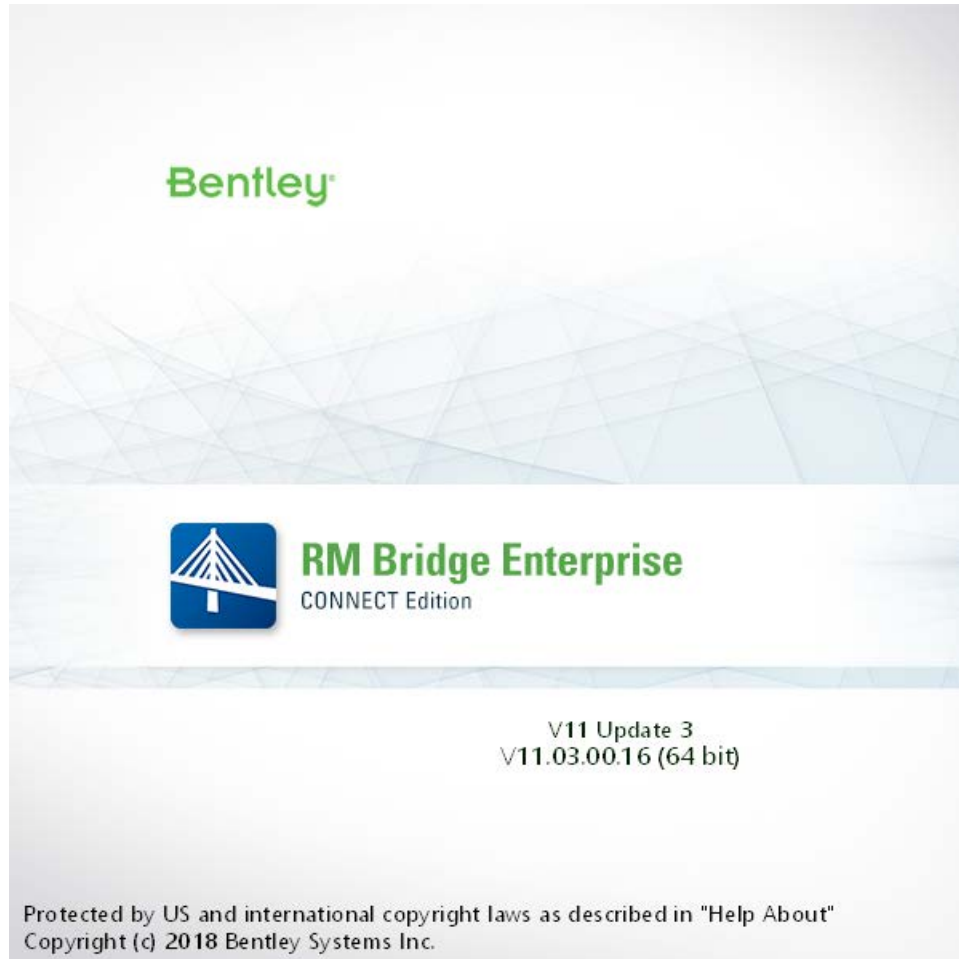




## RM Bridge CONNECT Edition V11 Update 3 Release Notes



### Enhancements in RM Bridge CONNECT Edition V11 Update 3:

RM Bridge CONNECT Edition V11 Update 3 contains the following enhancements and error corrections:

1. Superposition Load Case Tracking
2. Prestressing Tendons in Modeler
3. Tendon Stressing in Modeler
4. New "Refined" Option for Wind Calculation Method
5. New "Rigid End Post" Option for Element Buckling Check Per Euro Code
6. GUI for Balance Cantilever Tool

7. New Cantilever Wizard
8. Enhancements in GUI including:
  - 8.1 Improve Creating Main Girders and Piers in Modeler
  - 8.2 Material in Modeler
  - 8.3 Access to standard load trains and traffic load macros under Extras within Load Trains under Load Definition
  - 8.4 Access to standard load combination table under Extras within Load Combination
  - 8.5 Import/Export Load Combination Table from/to Excel File
  - 8.6 Excel output for "TndFibLc" and "TndFibSup"
  - 8.7 New Icons for 3D View in Modeler

## 9. Error Corrections

*Note: RM Bridge View automatically will be installed with RM Bridge, RM Bridge Advanced, and RM Bridge Enterprise on your machine. Prior to installing the latest version, please uninstall any pre-existing RM Bridge View.*

If you get an installation error message 1603 or 2738, please follow these steps:

1. Click on the Start menu, choose Run, type cmd and click OK
2. For 32-bit OS
  - To unregister the VBScript engine, run this command: reg delete "HKCU\SOFTWARE\Classes\CLSID\{B54F3741-5B07-11CF-A4B0-00AA004A55E8}" /f
  - To unregister the JScript engine, run this command: reg delete "HKCU\SOFTWARE\Classes\CLSID\{F414C260-6AC0-11CF-B6D1-00AA00BBBB58}" /f
3. 64-bit OS
  - To unregister the VBScript engine, run this command: reg delete "HKCU\SOFTWARE\Classes\Wow6432Node\CLSID\{B54F3741-5B07-11CF-A4B0-00AA004A55E8}" /f
  - To unregister the JScript engine, run this command: reg delete "HKCU\SOFTWARE\Classes\Wow6432Node\CLSID\{F414C260-6AC0-11CF-B6D1-00AA00BBBB58}" /f
4. Retry installation

## 1. Superposition Load Case Tracking

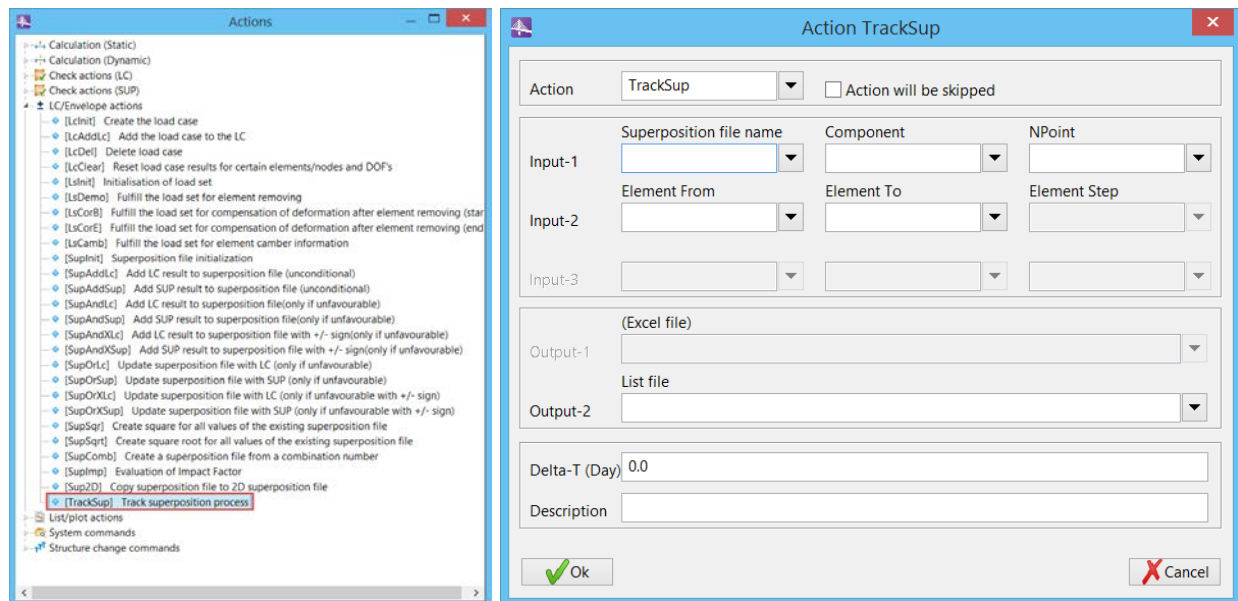
A new action "TrackSup" for tracking a certain superposition file is now available. This action generates one list/excel output file with all various and original sources of load cases and/or superposition files that contribute to the final tracking result component.

The output file for this action contains the final result along with the factorized results for each original load case and/or superposition file. The correspondent load factors used in each load case and/or superposition file are also indicated.

A schedule can have as many "TrackSup" actions as desired and they can be positioned inside a schedule action at any stage.

## Notes:

- All the fields presented in this action should be filled out before running the “TrackSup” action.
- This action can be performed in schedule actions outside of load management and after summation load cases have been finalized.
- This action will be enhanced for summation load cases results generated in the load management table in the next release. User will have possibility of running this action during the different construction stages and when summation load cases are not yet completed and/or finalized.



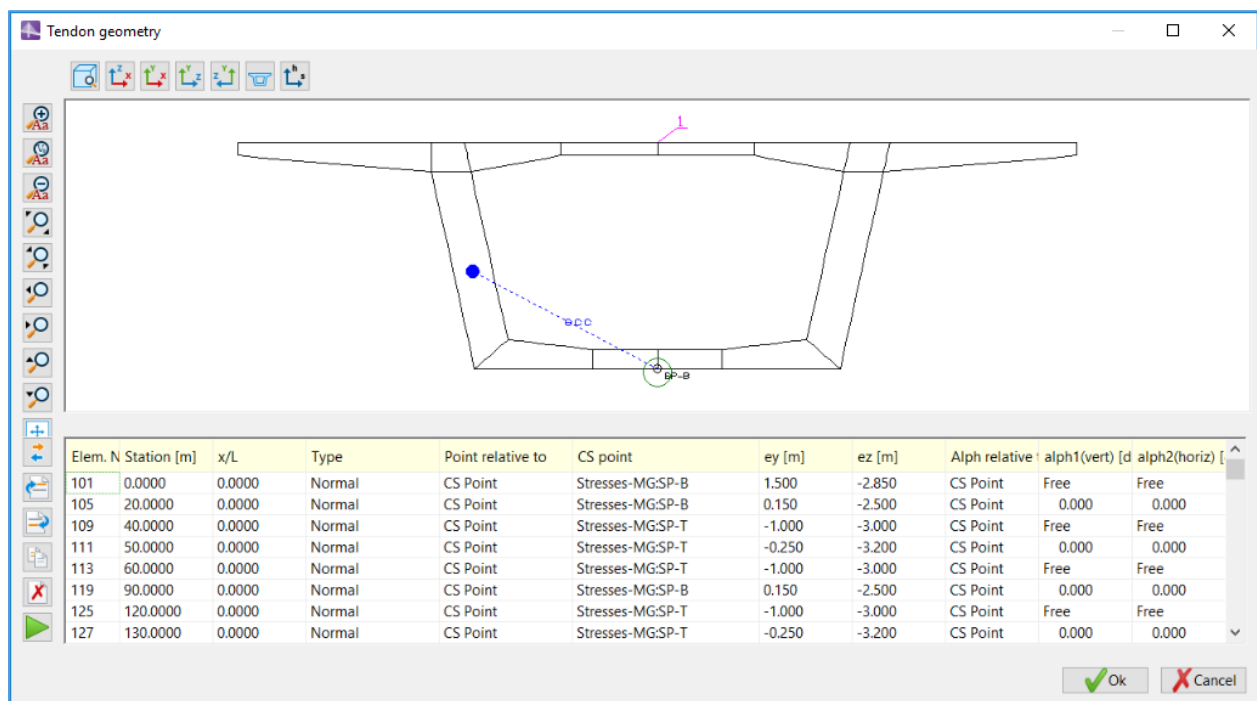
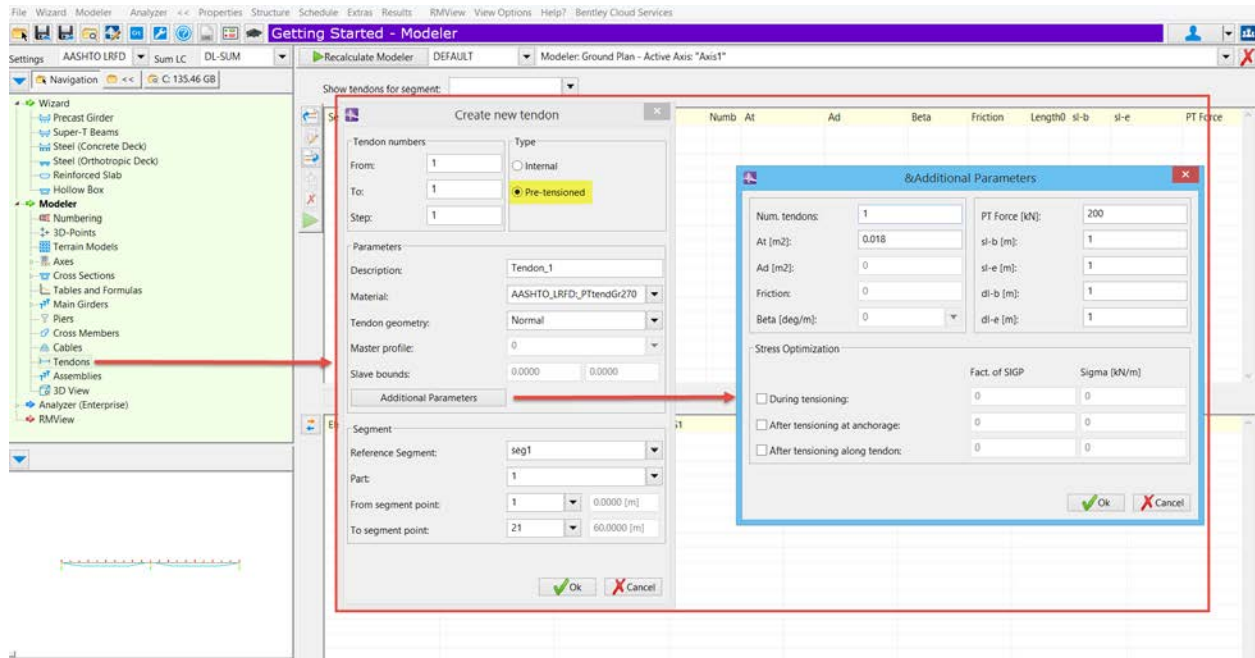
# SUPERPOSITION LOADCASE DISTRIBUTION

Units :      Force (kN), Moment (kNm)

SOURCE	SUP ELU.SUP	COMP	MaxMz	ELEM 135	PNT 1	F * N	F * QY	F * QZ	F * MX	F * MY	F * MZ
RAP	1.50	:	-334.0	-3.7	0.6	-27.3	-15.1	24631.1			
CS-STG33	1.50	:	3505.7	19.2	-3.4	26.6	1619.1	38680.9			
LC_VUT	-0.90	:	224.0	20.3	-0.3	-12.3	1259.4	2222.4			
LC_VNT-3	0.60	:	-117.2	-5.3	-77.3	-211.6	23264.9	1202.0			
LC_NEVE	0.90	:	-38.9	-0.4	0.1	-3.2	-1.8	2867.1			
SCU1.SUP (~	1.50	:	-674.4	-10.5	10.6	21.5	-4418.1	16739.3			
SCU2.SUP (~	1.50	:	-700.4	-11.8	-1.3	-26.7	942.8	17161.1			
SCF1.SUP (~	1.50	:	-108.8	-223.0	1.3	649.0	-497.9	5215.4			
SCF2.SUP (~	1.50	:	-111.1	219.4	0.2	644.3	-42.6	5246.6			
FRE1.SUP (~	0.00	:	-0.0	0.0	0.0	-0.0	-0.0	0.0			
FRE1.SUP (~	-1.50	:	-108.3	-44.4	34.8	-10.1	2029.3	261.4			
FRE2.SUP (~	0.00	:	-0.0	0.0	0.0	-0.0	-0.0	0.0			
FRE2.SUP (~	-1.50	:	-108.4	-44.3	26.4	-67.0	1248.8	260.7			
SW-SUM	1.00	:	0.5	0.0	-0.0	-0.0	0.8	31.7			
WC-SUM	1.00	:	0.0	0.0	0.0	0.0	0.0	0.0			
TR-SUM	1.00	:	740.1	12.4	-4.9	16.3	1815.7	-29809.3			
PT-SUM	0.90	:	-28837.7	-18.3	30.3	19.2	505.6	-21841.9			
CS-SUM	1.50	:	2042.1	5.0	-1.6	0.6	425.8	10623.2			
Full result		:	-24626.8	-85.4	15.4	1019.3	28136.6	73491.6			

## 2. Prestressing Tendons in Modeler

A new option for creating Prestressing tendons in Modeler have been added. User can define tendons based on bridge geometry and using station points. The new feature is available by double clicking on "Tendons" tree item inside Modeler. For more information click on F1 Help.

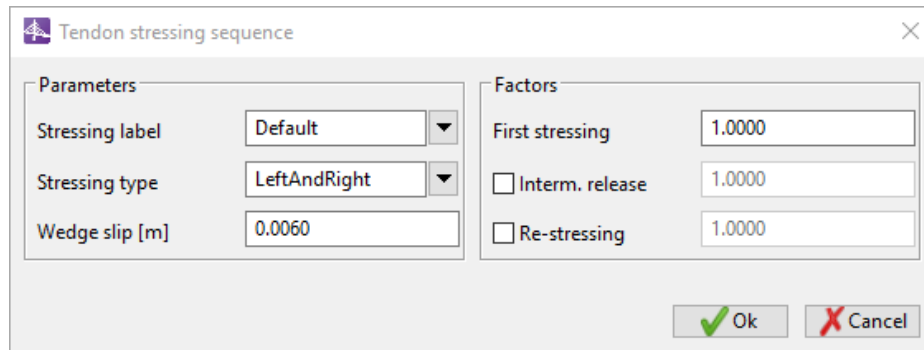


### 3. Tendon stressing in Modeler

A new option for stressing sequences in internal tendons have been added.

User can specify the sequences for tensioning the tendon, inserting the correspondent Tendon Loads. A wizard option for generating automatically the Tendon Loads for the

stressing types, at Left, Right or Left and Right end of the tendon is also included. For more information click on F1 Help.



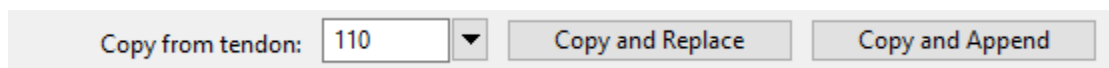
Parameters	
Stressing label	Default
Stressing type	LeftAndRight
Wedge slip [m]	0.0060

Factors	
First stressing	1.0000
<input type="checkbox"/> Interm. release	1.0000
<input type="checkbox"/> Re-stressing	1.0000

Ok Cancel

#### *Wizard in Tendon stressing in Modeler*

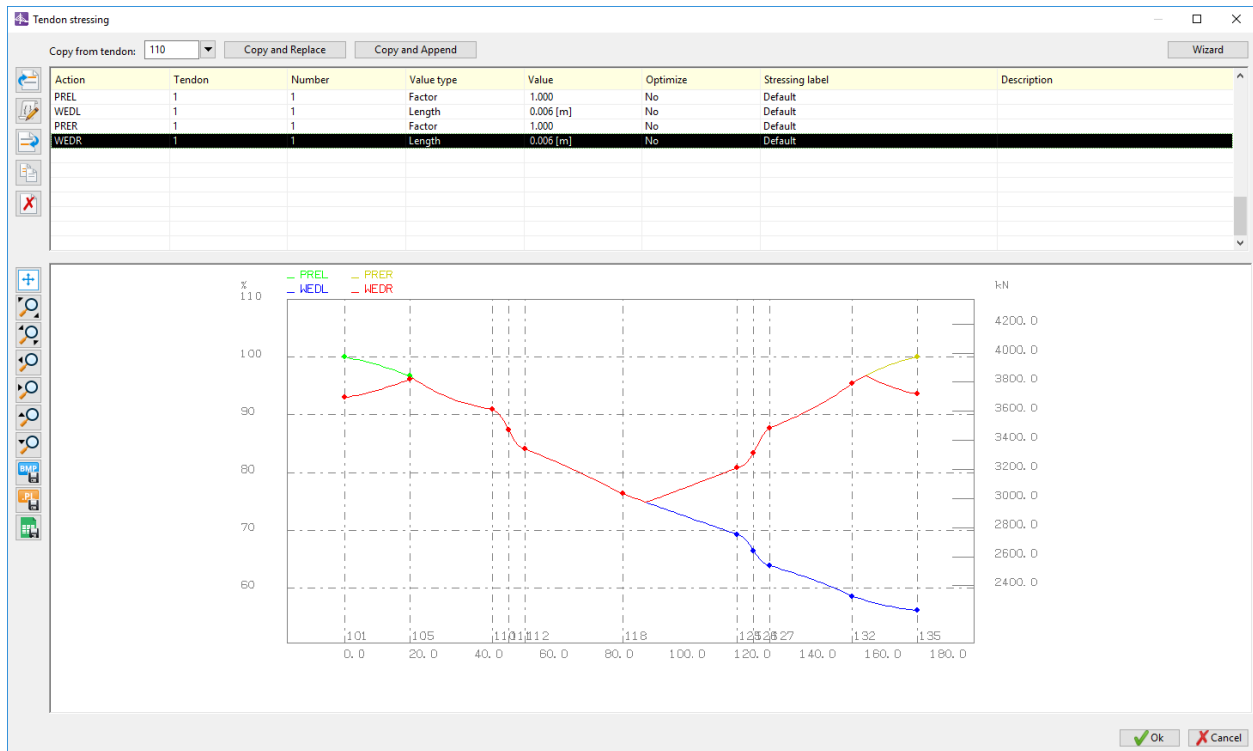
User can take advantage of new Copy buttons for taking over stressing actions from one tendon to another one.



Copy from tendon: 110 Copy and Replace Copy and Append

#### *Copy from tendon (Tendon Loads) in Modeler*

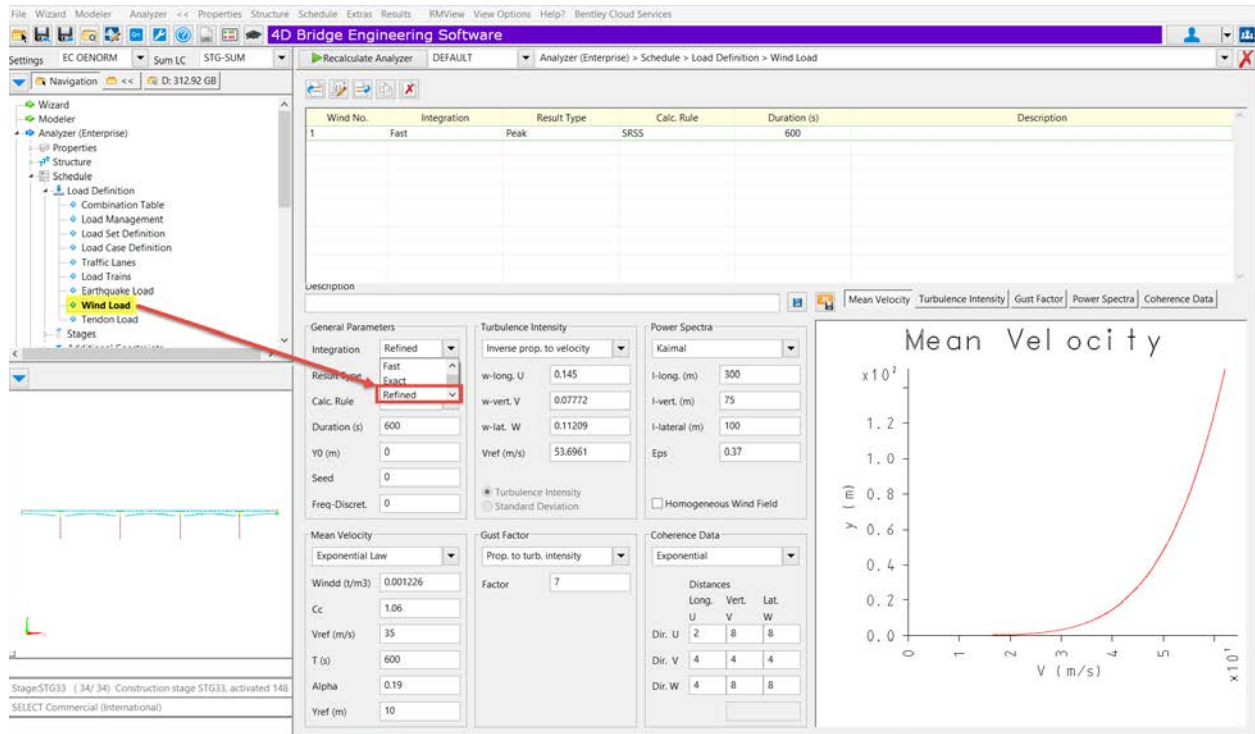
User can simultaneously see the graphic view of force distributions resulting from the individual stressing actions after the tendon load have been added. User can store the diagram in a drawing or by creating a plot-file.



*Tendon stressing diagram in Modeler*

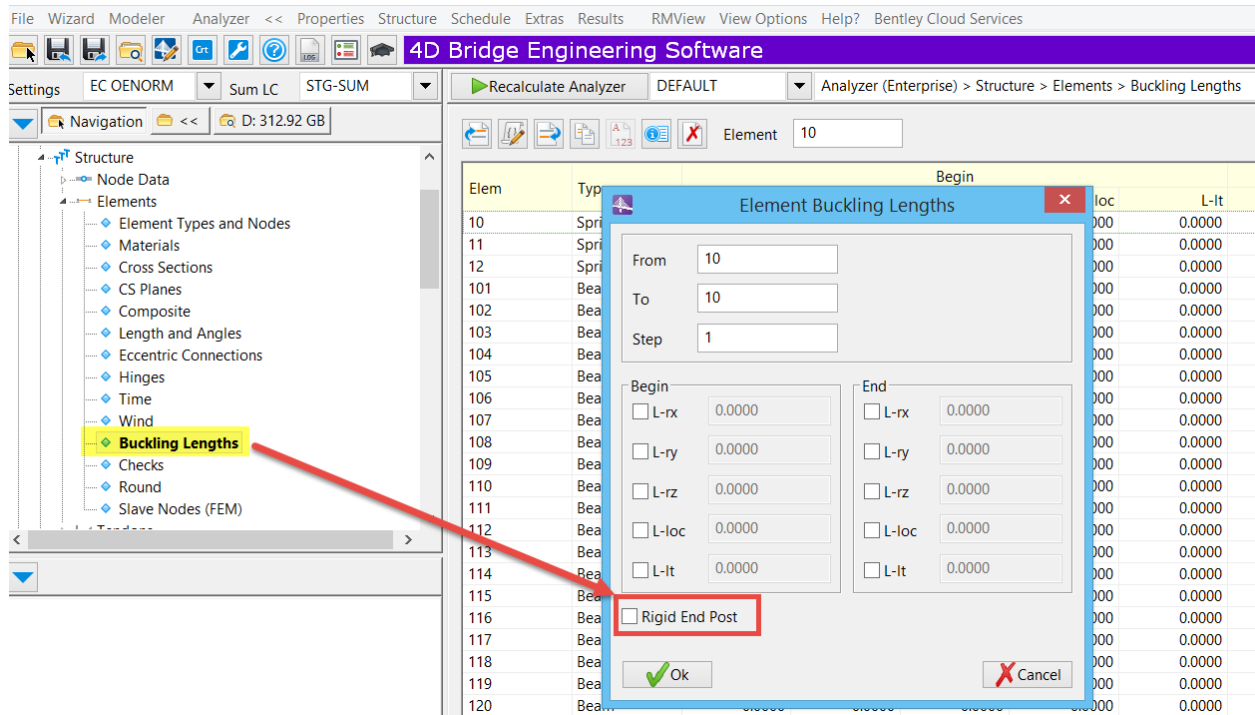
#### 4. New “Refined” Option for Wind Calculation Method

A new "Refined" option for wind calculation have been included. This method uses more points for integration of power-spectra resulting in capturing frequencies with higher accuracy and improves the results. This method may slowdown the analysis so user needs to find a balance between accuracy and solution time while using these options.



## 5. New "Rigid End Post" Option for Element Buckling Check Per Euro Code

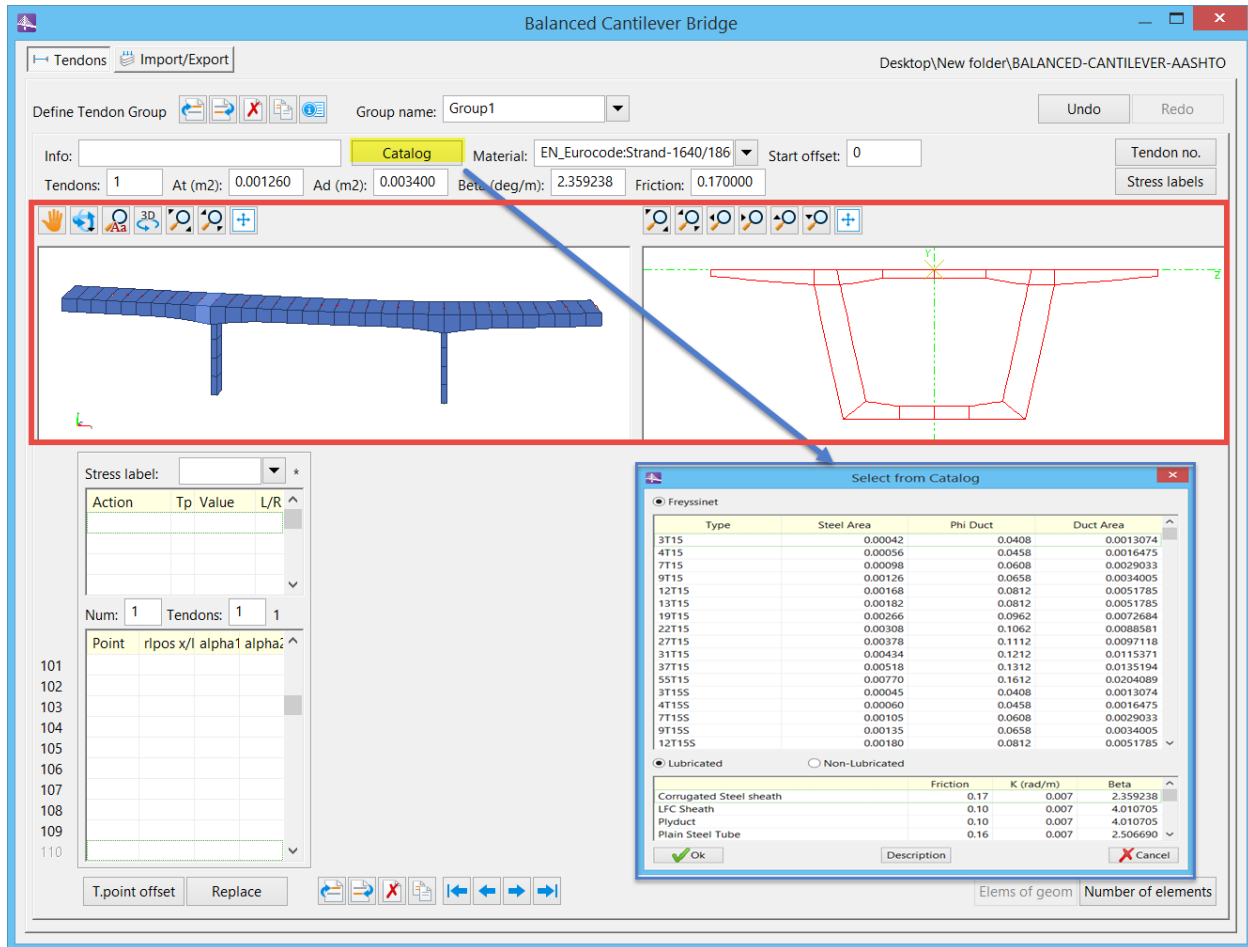
A new "Rigid End Post" option for element buckling check per Euro Code have been added. By default, this check is not performed.





## 6. GUI for Balance Cantilever Tool

Graphical view of bridge and tendon points in cross-section have been added to balance cantilever tool. A new option for selection tendon from catalog also have been included.



## 7. New Cantilever Wizard for Tendons

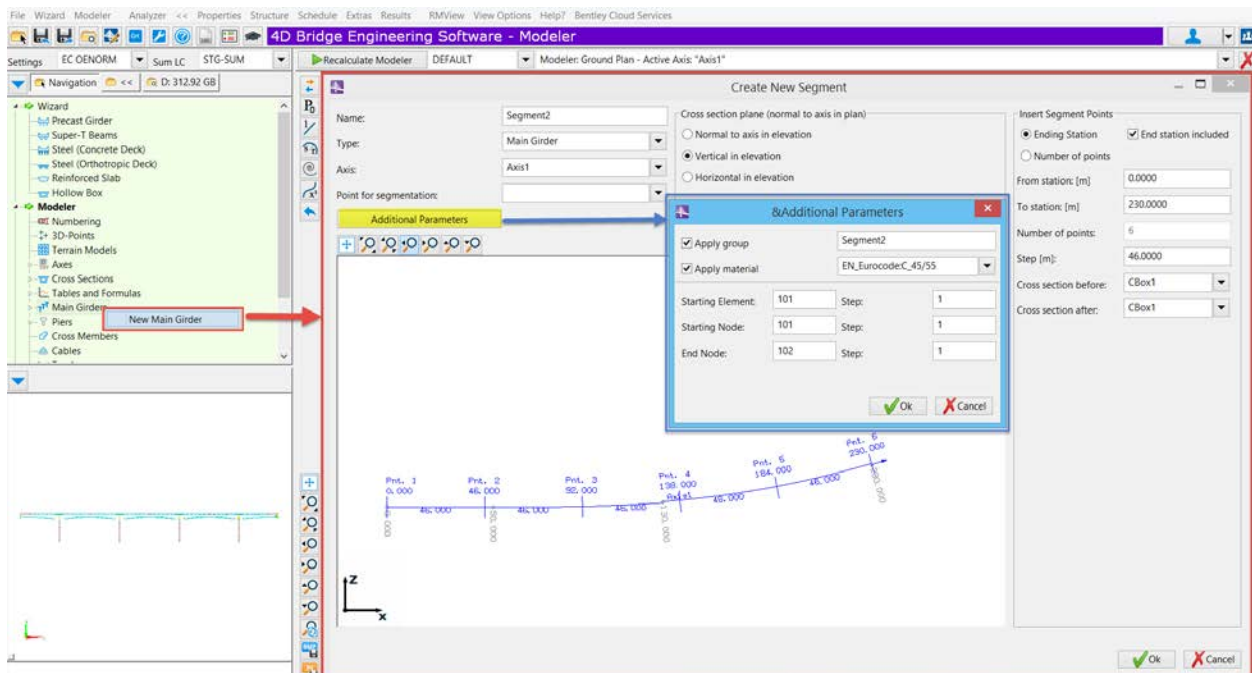
New cantilever Wizard for creating tendons in balance cantilever have been added. This option can be found under Extras→Pre-processors→ Cantilever→ Cantilever Wizard (New). The new tool offers graphical view of bridge and tendon points in cross-section with the possibility for selection tendon from catalog. All segments in structure and tendon points in cross-section are listed in the first row and first column of table, respectively. Piers are also presented in this table to help users with creating tendons. User can easily Copy different tendons and paste with mirror possibility in the table.

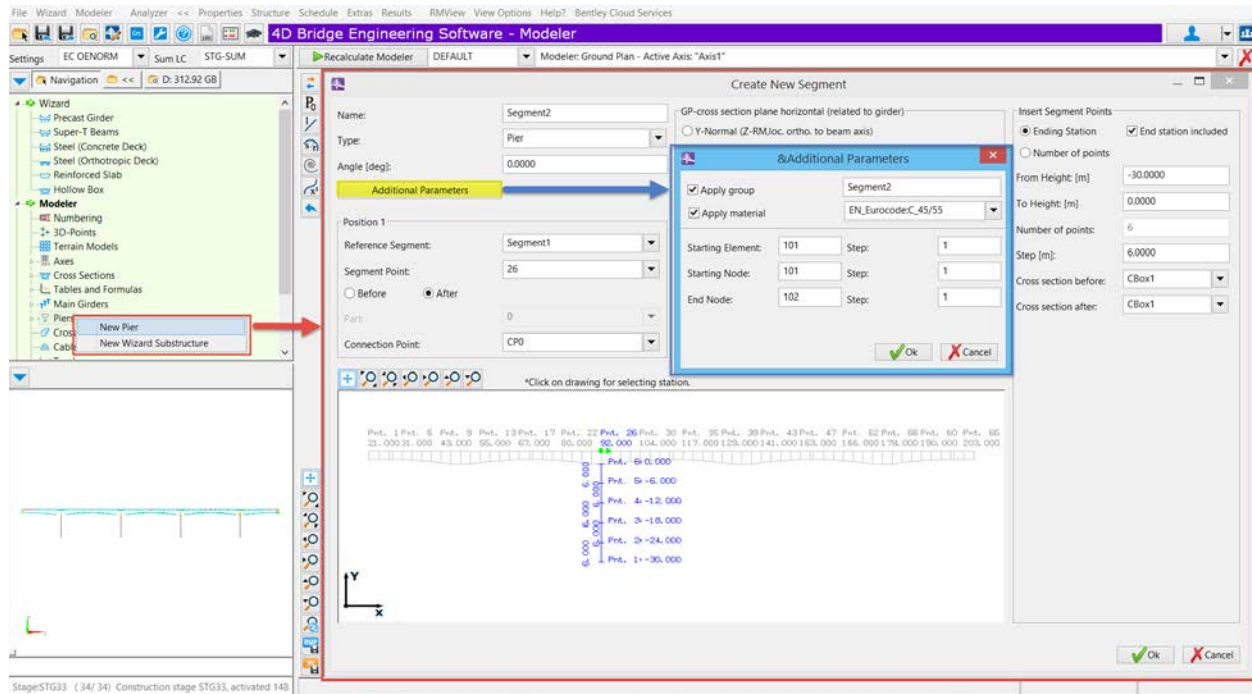
## 8. Enhancements in GUI

Several GUI enhancements have been implemented to improve the user experience. They include:

### 8.1 Improve Creating Main Girders and Piers in Modeler

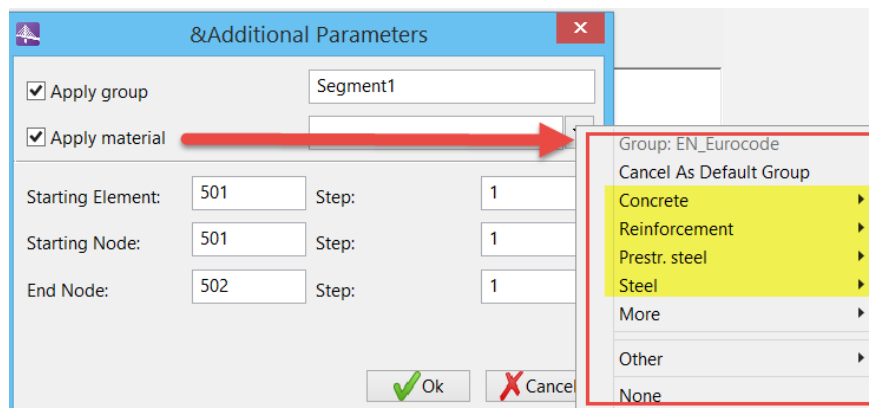
Creating New Main Girders and Piers have been improved. User can define new segments in one dialog box which includes all necessary information with graphical display of structure. The input data for segment will be fill out when user click “Ok”.





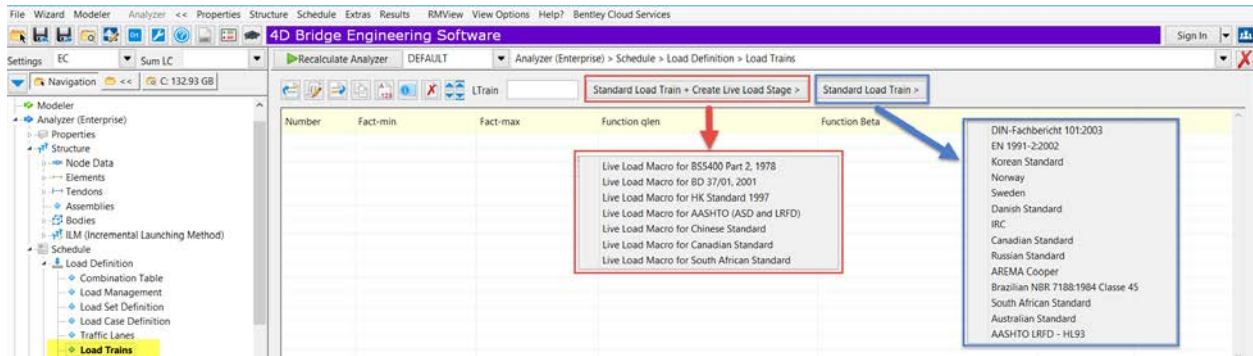
## 8.2 Material in Modeler

Materials in creating new main girders and piers have been categorized as it shown below:



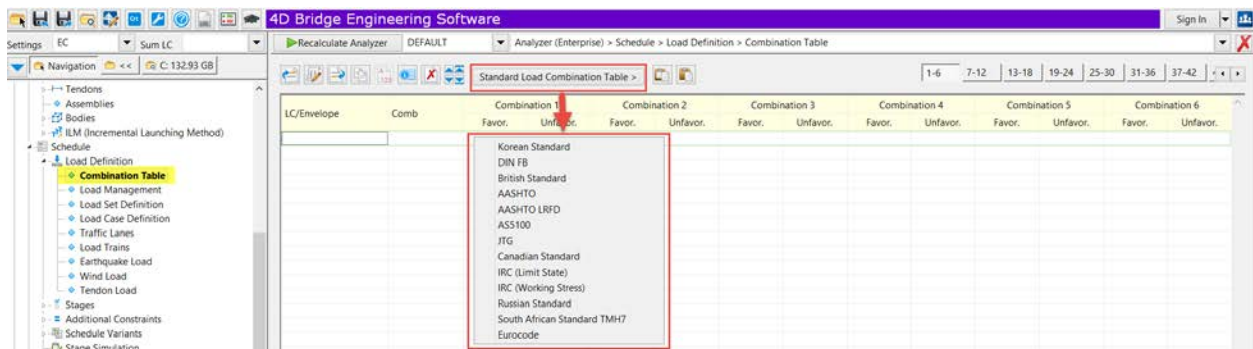
## 8.3 Access to standard load trains and traffic load macros under Extras within Load Trains under Load Definition

The new buttons for importing standard load trains and traffic load macros have been added to Load Train (Analyzer→ Schedule→ Load Definition → Load Trains). Click on F1-Help for more info.



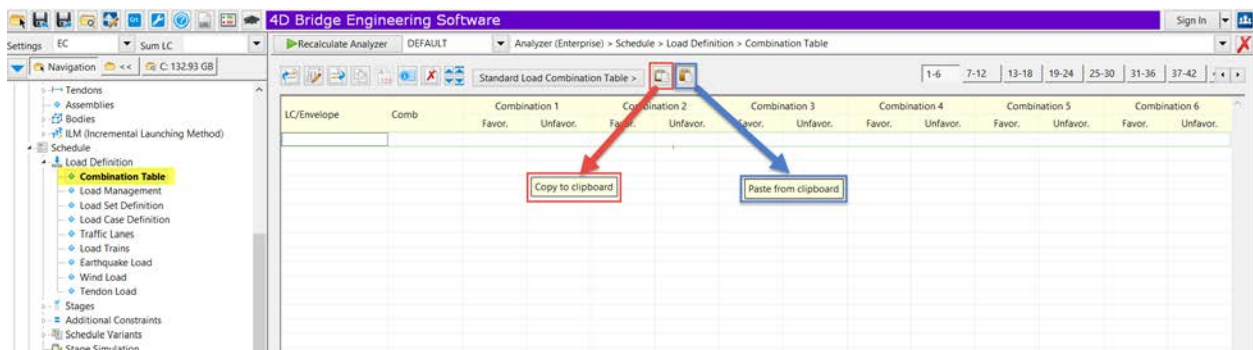
## 8.4 Access to standard load combination table under Extras within Load Combination

The new button for importing standard load combination have been added to Combination Table (Analyzer→ Schedule→ Load Definition → Combination Table). Click on F1-Help for more info.



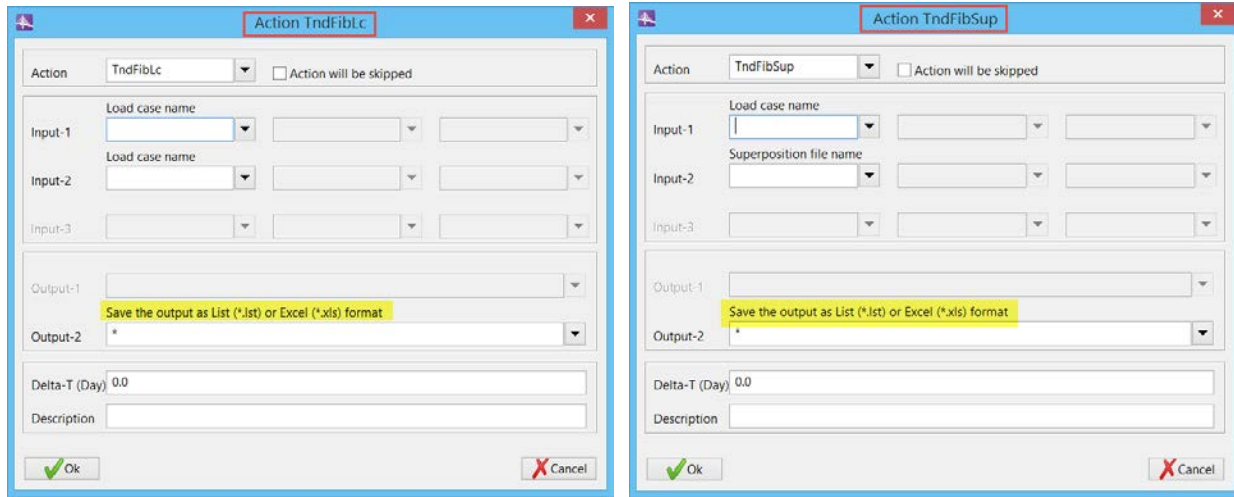
## 8.5 Import/Export Load Combination Table from/to Excel File

The new options for copy/paste load combination from/to excel file have been added to Combination Table (Analyzer→ Schedule→ Load Definition → Combination Table). Click on F1-Help for more info.



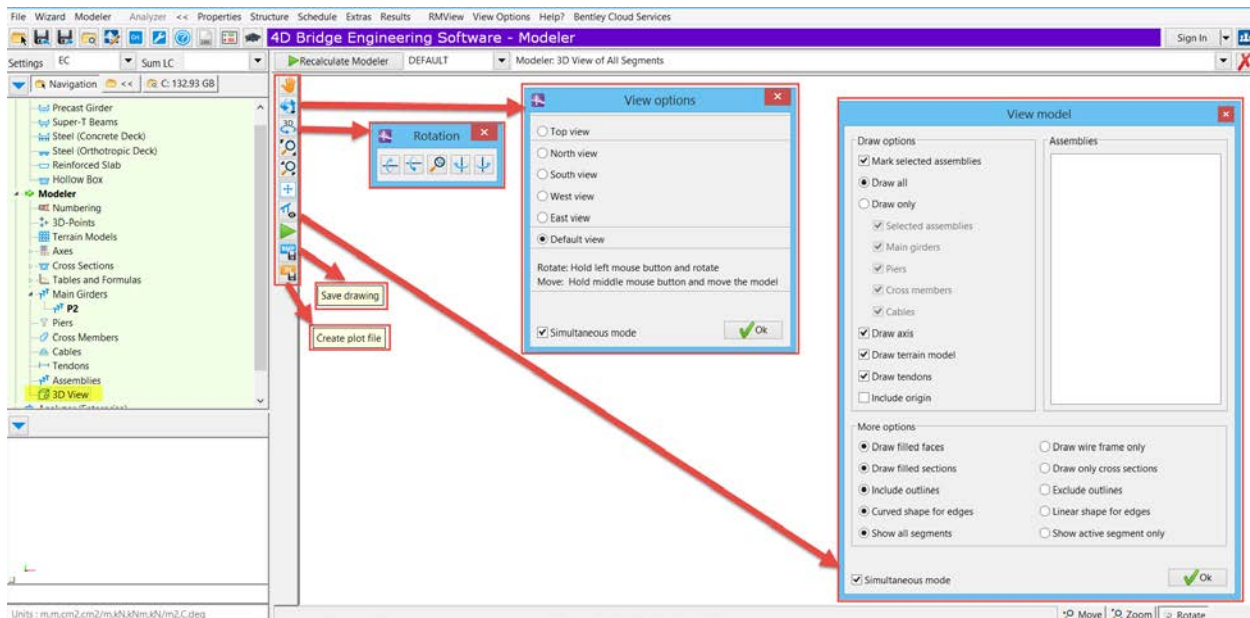
## 8.6 Excel Output for "TndFibLc" and "TndFibSup"

The new options for exporting results to Excel format for actions "TndFibLc" and "TndFibSup" have been added.



## 8.7 New Icons for 3D View in Modeler

Different groups of new Icons have been added into the 3D View in Modeler as shown below:



## 9. Error Corrections

The following errors have been corrected:

- The issue with not creating the SW load case when transferring a segmental bridge from OBM to RM has been fixed.

- The issue related to wrong part for referenced set "Stress2" in SuperT Beam Wizard has been corrected.
- Incorrect displaying unit weight in quantity report for US unit has been corrected.
- The issue related to rigid connection on piers in Reinforced Slab Wizard has been fixed.

### **Product Interoperability**

- OpenBridge Modeler
- MicroStation, GEOPAK, InRoads, MXROAD

### **System Requirements**

Supported Operating Systems:

- Windows 7, 8, 10 (32 and 64 bit)

Prerequisites:

- Windows Installer Version 3.1v2
- Microsoft .NET Framework 3.5 SP1
- Microsoft Access Runtime 2007

Processor:

- Intel or AMD processor 2.0 GHz or greater

Memory:

- 8 GB minimum, 32GB or higher recommended

Hard Disk:

- 2.0 GB free disk space (includes 300 MB install footprint for a complete installation)

Video:

- 250 MB of video RAM or higher recommended

### **Quick Install Guide**

To install, run the installation .exe file and follow the prompts. All prerequisites will be installed as required. A 64-bit RM Bridge will install under "Program Files\Bentley\RM Bridge" by default.