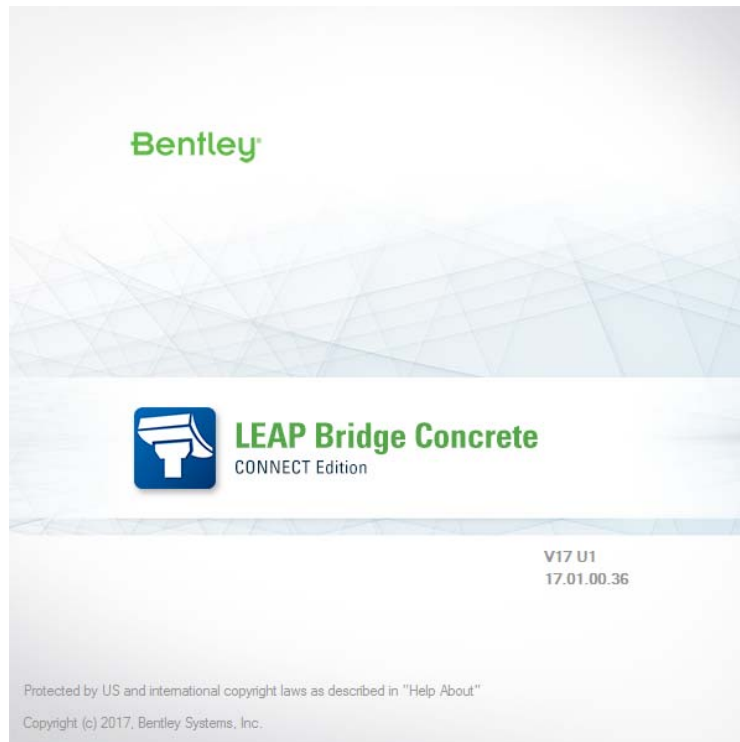


LEAP Bridge Concrete CONNECT Edition V17 Update 1 (November 6, 2017)



Version	v17.01.00.36
Operating Systems	Windows 8, Windows 10
Language	English

Before you begin, please note the following:

- Review the End-User License Agreement (or EULA) carefully during the installation of LEAP Bridge. By installing this release, you agree to the terms and conditions of the agreement. A copy of the End User License Agreement named EULA.pdf will be included in the "\\LEAP Bridge Concrete\eula.pdf" folder of the product installation. By default, this location is "C:\Program Files\Bentley\LEAP Bridge Concrete."
- Before installing LEAP Bridge, be sure to fully read this document as well as the Installer Note where you can find critical information important to your installation.

This document contains the following information:

- What is New & Changed?

- Installer Notes
- Directory Structure
- Support and Services Information
- Using the Online Help

What is New & Changed?

LEAP Bridge Concrete (LBC) CONNECT Edition V17.01.00.36 is the consolidated version of all LEAP standalone products including CONSPAN, CONBOX, RC-PIER, and GEOMATH, and CONSPLICE. It incorporates Bentley CONNECT which helps you produce better designs by facilitating collaboration, interoperability, standardization and skills development. For an organization and enterprise, CONNECT provides greater insight and control over project design, deliverables and the people working on them. To learn how CONNECT will benefit you and your projects, [please read this \(http://bit.ly/CONNECT-Overview\)](http://bit.ly/CONNECT-Overview). This release extends CONNECT features further.

Following enhancements are available in this release.

Major Enhancements

- Merging LBC library files
LBC now supports merging library files from
 - LEAP Component libraries – including those libraries of LEAP Bridge Enterprise, LEAP standalone products, and libraries from the modules of LEAP Bridge Concrete
 - LEAP Consolidated library (*.lbclib)
- Multiple units in superstructure
This feature allows users to model, analyze and design bridges with two and more superstructure units. The multiple units are either of the same type or of different types.
- Transition pier in substructure
LBC now supports modeling, analysis and design of transition pier that connects two different units.
- Stepped cap
This feature allows users to model stepped cap in a full bridge in the Main module, and subsequent analyze and design it in Substructure module.
- Three-point bearing system
LBC now supports three-point bearing system through ABC Wizard where two bearings are used at the beginning of span, and one bearing is used at end of span.
- Texas and Mississippi options in Substructure module
LBC now offers the customized configurations for substructure analysis requested by Texas and Mississippi DOT.

Additional Enhancements

- Support new girder types for superstructure design
 - 24 new NEXT beams ('D', 'E', & 'F') for Maryland DOT
 - 11 new IL-Beams for Illinois DOT
 - 2 new wide flange beams for Idaho DOT
- Response spectrum analysis extension
 - Option of rigid abutment (no lateral movement)

- Import and Export Custom design response spectrum
- New graphic engine for the 3D viewer

Apart from the enhancements to LEAP Bridge Concrete listed above, this release incorporates fixes for the following bugs.

- Main module (formerly called LEAP Bridge)
 - Layout of girders was incorrect when flared girders were modeled through the Advanced Definition in ABC Wizard.
 - Bent cap length from a user's file was not retained after the Prestressed/Precast Girder module was entered, updated, and exited.
 - Precast/Prestressed Girder module (formerly called CONSPAN)
 - Diaphragm load got deleted unexpectedly when the wizard method was used.
 - Rebar library for Canadian code incorrectly used the rebar library for Indian code.
 - False warning message was caused by decimals of the input values in Bridge Layout under Geometry Tab
 - Change made to the bearing-to-bearing distance could not be retained in a user's file
 - Vertical reactions were not correctly generated at span supports for the Span Type of Multi-Span (Non-Continuous).
 - Unable to read a saved stirrup file, and got the error "Input data in Stirrups grid is invalid".
 - Incorrect error message about beam spacing popped up when a user's file was opened.
 - Incorrect deflection calculation for the interior span in a simply supported multiple span bridge from a user's file.
 - CIP RC/PT Girder module (formerly called CONBOX)
 - Discrepancies in the reported shear forces and capacities in the detailed shear capacity reports between text and enhanced formats.
 - Program crashed for the tutorial files when dead load was being edited.
 - Substructure module (formerly called RC-PIER)
 - Auto design of the stirrups for shear and torsion in abutment or pier caps could be unconservative when the torsion effect was significant.
 - Discrepancy of the bearing layout in substructure model compared with that in full bridge model.
 - Incorrect error message was caused by decimals of input values for column heights.
 - Strength of concrete failed to be retained in stem wall abutment.
 - Envelope of the vertical forces under Service Limit States were not correctly shown when a user file saved in version 15 was opened using version 17.
 - Incorrect error message related to zero value of deck offset popped up when a user's file was opened.
 - Bearing seats were incorrectly shown in a full bridge model generated by Open Bridge Modeler.
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Installer Notes

How to install & activate LEAP Bridge CONNECT Edition?

Contents:

- Installation Wizard
 - Activation wizard
-

This section guides you through the process of installing LEAP Bridge on your computer. In order to install LEAP Bridge Concrete, please login as an Administrative user. LEAP Bridge can be installed by invoking Setup.exe. If you use Setup.exe, no other special consideration is necessary. Simply follow the instructions that follow. For details on the installation, please refer to the Installation Wizard section in this manual.

Note: LEAP Bridge Concrete requires Microsoft .NET 4.5 framework to be installed in order to operate properly.

Upgrading to the newer version of LEAP Bridge Concrete

Before following the Installation Wizard instructions, please note the following regarding the libraries:

- During installation, program default libraries will be added under “C:\ProgramData\Bentley\LEAP Bridge Concrete\” folder to comply with Windows standards to eliminate problems with access to users without Admin privileges.
 - The installation program will not overwrite the files already existing in the library folder.
 - If you have customized program libraries, you can move them to the above folder, and set the correct paths in the Library Setup dialog from within LEAP Bridge interface.
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Installation Wizard:

- First log into the Bentley CONNECTION Center (<https://connect.bentley.com/>) and download the LEAP Bridge Concrete installation files for the version you have purchased.
- Once you have downloaded the LEAP Bridge Concrete installation files, locate the install folder. Run the installer file by double clicking the setup.exe icon.
- You will be greeted by the Welcome screen. Click Next> to proceed with the installation process.
- You are now presented with the End User License Agreement for this software. Please read the agreement and then click the radio button to accept the terms. You may also print a copy for your records. Click Next> to continue.
- You will be asked for an installation location. This is the directory location of the program on your computer.

- The installer now has gathered all the information needed to complete the installation. Click Install to finish the process. The wizard begins installing the program onto your computer. Once the process is complete, click Finish to exit the Wizard.
- After the installer completes its process, the program is ready for use. You can launch the program by clicking the Start button and then All Programs > Bentley > LEAP Bridge Concrete.

Note: Until you have activated a license for the program, it will remain in the demo mode and function for only 30 days past installation.

Activating a product using the Product Activation Wizard

This is for installations which use a Bentley Server to authenticate the Bentley SELECT License used to run LEAP Bridge Concrete. In order to complete the installation, the SELECT Server Name and Site Activation Key will be required. If you do not have these, please contact Bentley technical support. Without this information, the installation will operate using a trial license valid for only 30 days.

- Install LEAP Bridge Concrete following the instructions in the Installation section.
- Locate the Bentley SELECT License Management Tool, LicenseTool.exe in the program installation folder (typically the location is c:\Program Files\Bentley\LEAP Bridge Concrete\).
- Select the installation type, then click the Next > button.
- Type in the Server Name and the Activation Key provided to you. Click the Next > button. Before accepting the entered information, you may choose to click the Test Connection button to confirm that the entries are correct.
- After the information is accepted by the system, the program then displays the summary of the Activation Parameters. Review the information and click Finish. The license security is now in place. The installation is complete and LEAP Bridge Concrete is ready for use.

Product Activation Wizard

Wizard Selections
Review your wizard selections. Clicking 'Finish' will complete your product activation.

Below is a summary of the activation parameters you have selected. Please confirm your selections and click 'Finish' to complete the activation process.

Server Name:
licensesm.bentley.com

Site Activation Key:
[REDACTED]

Country:
United States

Sign-In ID:
[REDACTED]

<Back Finish Cancel

Note: You may need to contact your system administrator if your organization uses a proxy server to connect to the Internet. Click the Proxy... button in the Product Activation Wizard to display a dialog for entering these connection settings.

Directory Structure

The default directory of LEAP Bridge Concrete is "C:\Program Files\Bentley\", if the user has not changed the location during installation. The tutorials are installed in the Example directory within LEAP Bridge folder. Help directory within LEAP bridge folder contains all the necessary help files for individual modules. Starting with v12.01.00.57, there is a change in the location of the library files. During installation, program libraries will by default be added under "C:\ProgramData\Bentley\LEAP Bridge Concrete\" folder to comply with Windows standards to eliminate problems with access to users without Admin privileges. If you have customized program libraries, you can move them to the above folder, and set the correct paths in the Library Setup dialog from within LEAP Bridge interface.

Support and Services Information

FAQs, What's New/Changed and other technical information can be found on Bentley's [technical support documentation](https://www.bentley.com/en/support) (<https://www.bentley.com/en/support>) page.

Please log issues that you encounter in Bentley products with the [Service Ticket Manager](http://apps.bentley.com/srmanager/ProductSupport) (<http://apps.bentley.com/srmanager/ProductSupport>).

Using the Online Help

LEAP Bridge Concrete features a user manual available in the *.chm* format. The step by step guides to the tutorials is also provided in the *.chm* format. Tutorial files are located in Example directory. To access the manual and tutorial guides, select the appropriate link from the Help menu.

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