

LEAP Bridge Concrete CONNECT Edition V19 (April 25, 2019)

Version	V19.00.00.22
Operating Systems	Windows 7, 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.
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This document contains the following information:

- What is New & Changed?
 - Installer Notes
 - Directory Structure
 - Support and Services Information
 - Using the Online Help
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What is New & Changed?

LEAP Bridge Concrete (LBC) CONNECT Edition V19.00.00.22 is the consolidated version of all LEAP standalone products including CONSPAN, CONBOX, RC-PIER, 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>). This release extends CONNECT features further.

CONNECT Licensing

This product version utilizes CONNECT Licensing, which is not supported by SELECT activation key(s).

CONNECT Licensing

(https://communities.bentley.com/products/licensing/w/licensing_wiki/37813/connect-licensing)

features new behavior to enhance your organization's user administration and security with mandatory user sign-in via CONNECTION Client to access the application. If you are already signed in to the CONNECTION Client, you have met this prerequisite. If you have not, please refer to the [Administrator's Resource Center](https://www.bentley.com/en/perspectives-and-viewpoints/topics/campaign/bentley-user-registration) (<https://www.bentley.com/en/perspectives-and-viewpoints/topics/campaign/bentley-user-registration>) and/or contact your administrator for assistance in the registration and sign-in process. For more information about working with the Update service, visit the [Update Infrastructure SharePoint](https://bentley.sharepoint.com/sites/MSPP/_layouts/15/start.aspx#/SitePages/Update%20InfrastructureSharePoint) (https://bentley.sharepoint.com/sites/MSPP/_layouts/15/start.aspx#/SitePages/Update%20InfrastructureSharePoint)page.

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.

Following enhancements are available in this release.

- 64-bit Upgrade
64-bit provides faster analysis, superior capability of handling large/complex bridge models, and better interoperability with other Bentley 64-bit applications.
The application is the first release with a new *.lbcx file extension. Besides, it also opens all the existing LEAP files, including *.lbc, *.xml, *.csl, *.cbx, *.rcp, *.gmd. However, when a user file is saved, it is only saved as *.lbcx.
- Support Iowa DOT's 8 standard Beams (BT and STD series)
- Support Utah DOT's 8 standard Beams (UBT series)

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

- Precast/Prestressed Girder module (formerly called CONSPAN)
 - False red flag was raised for the tensile stress checking under Service I Limit State
 - Substructure module (formerly called RC-PIER)
 - The dynamic load allowance IM was not included in the analysis when P-Delta option was selected for column slenderness consideration.
 - Incorrect load factors for the Extreme Event II Limit State.
 - Incorrect calculations of required longitudinal reinforcement in the negative bending zone for shear/torsion design check.
 - Steel reinforcement on compression was incorrectly used internally in the negative bending zone for shear/torsion design check.
 - Shear capacity due to concrete only was incorrectly reported in the summary and detailed design reports for pier columns.
 - Incorrect concrete unit weight was used to calculate the self-weight of stem wall when the LRFD and California option were both selected.
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Installer Notes

How to install LEAP Bridge CONNECT Edition?

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.

Installation Wizard:

- First log into the [Bentley CONNECTION Center \(https://connect.bentley.com/\)](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.

Directory Structure

The default directory of LEAP Bridge Concrete is "C:\Program Files\Bentley\LEAP Bridge Concrete \", 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 components. Lib folder contains the default library files for rebars, tendons, cross sections. It is recommended not to delete the default library files. 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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