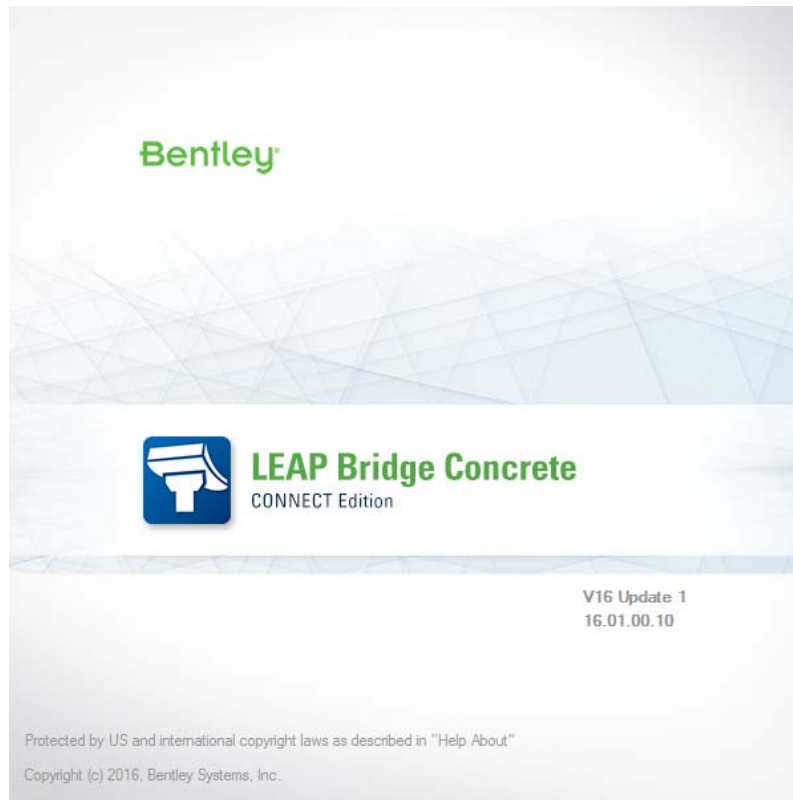


LEAP Bridge Concrete CONNECT Edition v16 Update 1



Version	v16.01.00.10
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.
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This document contains the following information:

- What is New & Changed?
- Installer Note

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

What is New & Changed?

LEAP Bridge Concrete (LBC) CONNECT Edition v16.01.00.10 is the consolidated version of LEAP Bridge Enterprise, plus all LEAP standalone products including CONSPAN, CONBOX, RC-PIER, and GEOMATH. 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](#).

Following enhancements are available in this LEAP Bridge Concrete release.

- Consolidated library
 - Multiple libraries are consolidated into single library file.
 - Old library files can be imported into this version and saved under the new format as a single library file.
 - Various components such as Vehicles, Rebars, etc. of the new consolidated library can be exported and read into different project files.
- Improved integration of LBC with ProjectWise (PW)
 - Added the capability of sharing LBC library files through PW.
 - Revised the existing workflow of sharing users data files through PW.
- Detailed design reports for Substructure Module now display:
 - Intermediate calculations for various code checks
 - LRFD article references
 - Equations
- Two-way connection to OpenBridge Modeler (OBM)
 - Concrete bridge models created in the OpenBridge Modeler can be brought into LEAP Bridge Concrete for analysis and design.
 - Changes made to prestressed girders sizes and IDs, beam layout, and substructure components in LBC can be brought back to OBM.

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

- Precast/Prestressed Girder module (formerly called CONSAPN)
 - Core deck depth was not always calculated correctly in the empirical design of bridge deck for LRFD code.
 - Negative moment along span at the location of center line of pier was incorrectly calculated.
 - Beam layout did not get updated after the cross section was changed in the main module.
 - The data files for strand and stirrup patterns were not being saved under the specified folder.
- Substructure module (formerly called RC-PIER)

- Cross section width and depth in longitudinal and transverse directions of pier column were incorrectly used in shear design check.
- Modification factors which decrease development length were missing in the related calculations for LRFD code.
- Vertical reactions at bottom of pier column changed unexpectedly when the elevation of pier cap was changed.
- The stem wall height in the Substructure module for the Indian design code was limited to 5 m. This restriction has now been removed.
- Default partial factors of leading loads and accompanying loads were incorrect for the Indian design code.
- Incorrect swapping of the design moments in the transverse and longitudinal directions in the isolated spread footing in the Substructure module. The corresponding required steel reinforcement in transverse and longitudinal directions were therefore not correctly calculated.
- Files saved with the Substructure models could not be re-opened.
- The Pile/Shaft Capacities were not retained for pile bents.
- Fixed issues in the Fatigue Limit State checking.
- CIP RC/PT Girder module (formerly called CONBOX)
 - User defined load combinations were not retained.
 - Live loads selected and saved in a new file were not retained.
 - The governing load combination, required initial concrete compressive strength, and characteristic compressive strength of concrete were missing in the design summary for the Indian design code.
 - Service stresses in Analysis Dialog Box did not match those shown in Design Results Dialog Box for Indian design code.
 - The program crashed often when the live load analysis was performed for Curved Bridges using Grillage Analysis option for Indian design code.
 - User defined sections were not retained for the Indian design code.
 - Span Length defined in ABC wizard was not retained for the Indian design code.
 - Shear capacity diagram, user input tendons, and some section parameters were not retained for the Indian design code.

Upgrading from LEAP Bridge Enterprise

- Follow the on-screen instructions and install the program.
 - 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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Installer Note

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.

Installation Wizard:

- First log into the [Bentley SELECT Services Web site](#) and download the LEAP Bridge installation kit for the version you have purchased. Please do not download the individual components (such as CONSPAN, RC-PIER, etc.) if you intend to install LEAP Bridge. The LEAP Bridge Concrete installation package includes the necessary components.
- 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 when finished. 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 gather 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 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. 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 for only 7 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 SELECT subscriber activating against a hosted (Bentley) SELECT Server option and then click the Next > button.
- The dialog box displays with the Server name provided for Bentley's server. Complete the Site Activation Key received from Bentley and click the Next > button. Before accepting the entered information, you may also choose to click the Test Connection button to confirm that the entries are correct.
- Enter the SELECT Server name and the Site Activation Key received from Bentley, and click the OK button. If you do not know these, please contact your system administration. Before accepting the entered information you may also 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 all the available licenses for your usage as shown in the following dialog box. The license security is now in place. The installation is complete and LEAP Bridge is ready for use.

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 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](#) page.

You can efficiently log issues that you encounter in Bentley products with the [Service Ticket Manager](#). Information on other professional support and service offerings from Bentley is available online at [SELECTservices Online](#).

Using the Online Help

LEAP Bridge features a user manual available in the *.chm* format. A pdf version of the step by step guide to the tutorials is also provided. Tutorial files are located in Example directory. Adobe® Acrobat Reader® is required to use the pdf tutorial manual. Acrobat Reader is a free download available at www.adobe.com. The installation process will automatically install the user manuals for each module of LEAP Bridge Concrete in the Help folder. To access the manual and tutorials, select the appropriate link from the Help menu.

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