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**spWall v5.01 - Updated April 2016**  
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**Resolved issues:**

1. Resolved display issue with force results and diagrams for ACI 318-14
2. Updated license activation protocols

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**spWall v5.00 - Upgraded December 2015**  
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**Code Features:**

1. Added support for ACI 318-14 standard (code) in English and Metric units
2. Added support for CSA A23.3-14 standard (code) in English and Metric units

**Enhancements:**

1. Added validation limits on input material properties based on available materials and code limits
2. Updated user manual to incorporated guidance sketches in support of element design forces and their respective directions, stiffener sections, and physical location of reinforcing bars
3. Modify Plate Design Criteria sketch to identify location of model curtain 1 and 2
4. Improved presentation items in graphical results screens including various editorial adjustments.

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**spWall v4.02 - Updated May 2012**  
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**Resolved issues:**

1. Resolved issue with contour maps shown only for first 15 service and ultimate load combinations
2. Resolved issues with design of stiffeners for tensile axial forces
3. Revised default load combination factors predefined in the input file templates to match ACI 318-11/08 and ASCE 7-10 recommendations
4. Revised default support definitions in the input file templates to increase clarity
5. Added a warning message asking the user to verify load combinations after code selection is changed
6. Updated installation procedure for systems with 64-bit version of Windows 7
7. Applied minor editorial corrections to the manual and online help

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**spWall v4.00 - Upgraded November 2011**

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**Code Features:**

1. Added support for ACI 318-11 code in English and Metric units
2. Added support for ACI 318-08 code in English and Metric units

**New Features:**

1. Added calculation of wall shear strength provided by concrete for solid walls in accordance with ACI code
2. Added calculation of wall cross-sectional forces at horizontal sections along wall height
3. Introduced separate values of cracking coefficients for service and ultimate load combinations
4. Incorporated minimum reinforcement ratios for precast walls
5. Introduced a user option to override code minimum reinforcement ratios
6. Introduced an option for different cover at interior and exterior wall faces
7. Allowed one curtain option for walls thicker than 10 inches (e.g. retaining and basement walls)
8. Included service load out-of-plane displacement check against a default or user-defined limit
9. Added reporting of displacement values for ultimate load combinations in results report
10. Added calculations and reporting of wall center of gravity in XY plane
11. Added equilibrium check including sum of forces and moments due to applied loads and reactions
12. Added ability to import input data (grid coordinates, loads, load combination) from a text file
13. Added ability to export wall geometry to DXF file
14. Added default definitions and default assignments to facilitate and speed up model generation

**Enhancements:**

1. Clarified when ties are required for vertical bars in compression
2. Refined the finite element solver to achieve more accurate calculation of in-plane displacements and internal forces due to in-plane rotational degree of freedom
3. Allowed printing and copying to clipboard results selected directly in View Results window
4. Revised graphical display to show reinforcement design results even if design of some elements failed
5. Added options for displaying labels in graphical view for selected elements and nodes
6. Added options for annotating applied loads in graphical view

7. Added keyboard shortcuts to menu commands
8. Added drag and drop option to open and load wall input files
9. Improved handling of view settings when switching between various windows
10. Provided an option to restore default object colors
11. Revised Manual and Help documentation to increase accessibility, enhance description of new program features, and reflect added functionality.

**Resolved issues:**

1. Resolved issue with area load assigned outside of model
2. Resolved issue when the Update button is clicked in View Results and no results are selected
3. Resolved issue encountered occasionally while zooming or panning model view
4. Resolved several issues related to program operations, output, installation and checking for updates

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**spWall v3.60a - Updated May 2010**  
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Updated user documentation and resolved miscellaneous license activation issues.

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**spWall v3.60 – Updated April 2009**  
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**Enhancements:**

1. Updated Lambda factor calculations for lightweight concrete for consistency with ACI and CSA standards as well as other programs in StructurePoint's software suite.
2. Modified second order effects to become the default option allowing user to automatically account for slenderness effects.
3. Provided easier and faster access to software manual directly from the Help menu.
4. Automated naming of text report file to sync with open data file name.
5. Renamed pcaWall, also formerly known as pcaTilt, to spWall to better relate and support the registered trade name of the publisher, StructurePoint, formerly PCA's Engineering Software Group.

**Resolved Issues:**

1. Corrected program interface to allow output results to print for user selected load combinations.

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**pcaWall v3.50 – Upgraded March 31, 2006**  
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**New Features:**

1. Supports ACI 318-05 and CSA A23.3-04
2. Improved licensing including:
  - multiple entries (each on a separate line) are allowed in the lshost.txt to achieve license server redundancy
  - LAN keyword can be specified in the lshost.txt file to instruct the license manager to search for a license in the local area network (within the same subnet)
  - complete licensing information displayed in the About box
3. Users can check if a newer version of the program is available using Help | Check for update command.
4. User interface enhancements including improved graphical display of results with contour/diagram annotations
5. Enhanced documentation including
  - Updated manual and on-line help
  - Context sensitive help
6. The pcaWall installation file is now digitally signed by pcaStructurePoint.

**Resolved Issues:**

1. Incorrect information in the Info window has been revised.
2. Missing information in the text output has been supplemented

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**pcaWall v3.02 - July 9, 2004**  
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1. On Windows NT and XP, installation will run only if an account with administrative rights is used.
2. All temporary files are stored in local system temporary directory instead of tmp subfolder of the program folder.
3. Using Update button when viewing text results no longer causes pcaWall to crash.
4. All program icons are shown in pcaWall folder for all types of users on NT and XP machines.
5. A bug, which would occasionally crash pcaWall during the design of stiffeners for ACI code in English unit system, has been fixed.
6. Cosmetic corrections in the interface and program output including:
  - Word "stiffener" is now correctly spelled in the program output.

- Flange left thickness (T-L) and flange right width (W-R) are now correctly displayed in the table view of the stiffener section define window. Calculations, however, were and are done correctly according to data entered in the Flange frame.
  - File names are no longer capitalized.
  - The About dialog box displays licensing information.
  - CSA specific headers are used in the output when CSA code is used.
  - Sequence of tabbing between controls in a few dialog boxes has been corrected.
7. Corrections in the manual.

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**pcaWall v3.00 - March 2004**  
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**New Features:**

1. Redesigned and enhanced interface with such new features as graphical display of stiffener forces and improved reporting options.
2. 32 bit application fully compatible with new Windows systems such as Windows 2000 and XP.
3. New stiffener design options including flanges and more reinforcement layouts.
4. New load type - linear area load - for modeling soil and liquid pressure.
5. Updated and enriched manual in PDF format.

**Resolved issues:**

1. Discrepancies between graphical and text results in some cases when more than one service and one ultimate load combinations were present.
2. Freezing of the program during stiffener design.
3. "Floating-point error: Overflow when trying to view contours and results".
4. An issue related to the uniform line load.