# FEMA P-807 Weak Story Tool

Name: Weak Story Tool

**Version:** 1.5.0.35

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Prepared for: FEMA

### **Release Notes:**

Version 1.5.0.35 (November 5, 2016):

- Fixed a bug in which the top print margin increased each time the document was re-opened and printed.
- Modified messages about eccentricity to follow Guidelines more closely.
- Fixed a bug in which the program crashed when the user would try copying and pasting a diaphragm shape from one floor to another.

Version 1.5.0.34 (December 17, 2015):

• Fixed a bug in which pasting walls sometimes caused the program to crash.

Version 1.5.0.33 (August 18, 2015):

- Fixed a bug in which the adjustment factor accounting for differences in wall heights within the same level was not applied correctly. This only affected models with walls that overrode the story height.
- Fixed a bug in which conflicting status messages were reported for buildings with adequate performance in the existing condition.

Version 1.5.0.32 (June 11, 2015):

- Attempted to fix bug in which plotting fragility curves in cases where the
  performance was out of the expected range would cause a crash. It could not be
  verified that all related problems were resolved.
- Fixed a bug in the calculation of the allowable eccentricity of the retrofitted structure, which in some cases led the program to deem adequate retrofitted structures with eccentricity greater than allowed by the Guidelines.
- Fixed a bug in which entering incompatible units (e.g. in the Perforated Area text box) would cause a crash.

Version 1.5.0.31 (December 15, 2014):

- Set up summary charts so that legend appears on printout.
- Corrected eccentricity requirement for retrofitted structure. It had been 5% but should have been 10% per Guidelines section 6.3.1.

Version 1.5.0.30 (November 17, 2014):

- Corrected issue in which trying to plot backbones of walls without assemblies assigned would cause a crash.
- Corrected issue in which having no torsional strength would allow analysis and would cause a crash.

- Corrected issue in which a file with many images would crash on opening.
- Corrected issue in which a building with too much strength in the existing condition
  may mistakenly be indicated as adequate in the status label.
- Corrected issue in which trying to print would delete analysis results.

#### Version 1.5.0.29 (October 9, 2014):

- Corrected issue in which the selected POE was not being saved.
- Corrected issue in which copying to the clipboard sometimes would not work.
- Changed backbone curve viewing in the Levels tab to take into account whether the view mode is set to Before or After Retrofit.
- Changed Perforation Calculation control so that it may be viewed concurrently while editing walls.
- Changed Backbone Curve and Level Properties controls so that they may be viewed concurrently with the shearwall properties control.
- Corrected issue in which eccentricity validation for the X and Y directions was flipped (previously validation eccentricity for X direction was attributed to the Y direction in the Summary Log and visa versa).
- Corrected issue in which a building that could not be classified as having a weak story in its existing condition would be reported in the Executive Summary portion of the Summary Log as being adequate, while the detailed summary indicated that other retrofit measures were required.
- Corrected issue in which changing printing options would delete analysis results.
- Corrected issue in which trying to insert a large image would cause WST to crash.
- · Fixed minor printing bugs.
- Various minor bug fixes.

#### Version 1.5.0.28 (March 19, 2014):

• Modified copy/paste of walls so that the number of gravity load levels a wall has is acquired by default from the level onto which it is placed.

## Version 1.5.0.27 (March 13, 2014):

• Added FAQ document and FEMA P807 Appendix A (WST Guide) to the Help menu.

## Version 1.5.0.26 (March 7, 2014):

Added print options.

## Version 1.5.0.25 (February 28, 2014):

- Corrected issues related to reducing the number of levels.
- Corrected issue related to deleting an assembly that had previously been assigned to a wall.

#### Version 1.5.0.24 (February 25, 2014):

 Modified installation procedure. All installation files are embedded in self-extracting setup file.

## Version 1.5.0.23 (February 14, 2014):

 Corrected issue in which the heights of walls set to override story height weren't saved to the file.

#### Version 1.5.0.22 (February 3, 2014):

• Corrected issue in which the weights of the levels were not calculated when a file was opened. This bug only affected version 1.5.0.21.

Version 1.5.0.21 (January 30, 2014):

• Changed label where spectral demand is entered.

Version 1.5.0.20 (December 6, 2013):

- Corrected issue in which a diaphragm shape could be imported with invalid points.
- Corrected issue in which the diaphragm COM did not update properly when the shape was edited.

Version 1.5.0.19 (June 3, 2013):

 Corrected issue in which a file could not be opened because of zero-length linework.

Version 1.5.0.18 (April 12, 2013):

 Corrected issue in which retrofit elements were included in the analysis but did not print.

Version 1.5.0.17 (April 4, 2013):

- Fixed incorrect value for sheathing layer L4 to match printed document at drift ratio 1.5% from 200 to 391 plf.
- Added missing values for sheathing layer L5 to match printed document at drift ratios 2.5% and 3%: 505 to 449 plf.
- Corrected issue causing added load-drift curves in the layout for to not match those in the results summary. Standardized drift ratios used for interpolation.
- Improvements and bug fixes in user-interface.

Version 1.5.0.0 (September 1, 2011): First Release