



August 15, 2018

Release Notes for tnxTower Version 8.0

This document describes Version 8.0 of tnxTower. Please contact TNX Support at support@towernx.com if you need update instructions.

New Features and Bug Fixes

v. 8.0.4.0

1. Corrected shear capacity calculations for pipes. (TIA/EIA-222-F and earlier, CSA S37-01)
2. Corrected occurrences of superfluous characters in the analysis and design report, which might be generated for some feed line configurations.
3. Increased the number of input rows on the User Forces page.

v. 8.0.3.2

1. Added seismic data input on the User Forces page. (TIA-222-G, H)
2. Added seismic load combinations. Currently, these load combinations only use data entered in the Seismic section of the User Forces page. (TIA-222-G, H)
3. Revised the treatment of feed lines attached to Upper Structure poles on top of Base Towers. Such feed lines are now considered also when specified with the Surface Component Type. Previously, the Surface Component Type was considered for monopoles only. (TIA-222-G, H)
4. Added an option on the Feed Lines page to exclude individual feed lines from the global torque calculation.
5. Added an option to ignore the KL/ry ratio of schifflerized angle and 60 deg. bent plate legs in staggered bracing patterns. (TIA-222-G and earlier, CSA S37-01)



6. Added the ability to set custom utilization ratio limits, using the Stress Ratio For Wind and Safety Factor For Guys settings on the Code page. (TIA-222-G, H, CSA S37-01)
7. Added a force and moment diagram for seismic loads on the Material Take-Off screen.
8. Corrected exported tower base dimensions in the tnxFoundation data transfer file for models in the metric unit system.
9. Changed the wording of some labels in the Design group on the Code page for consistency reasons.
10. Increased the length limit for text strings entered as Additional Notes on the Material Take-Off screen.

v. 8.0.2.1

1. Corrected C_f calculations for poles with linear attachments. Previously, the program might report incorrect, larger C_f values. (TIA-222-H)
2. Adjusted C_a calculations for flat feed lines with aspect ratios less than 25.
3. Corrected C_a calculations for flat feed lines under the metric system.
4. Corrected calculations of global torsion due to feed lines. (TIA/EIA-222-F and earlier)
5. Corrected calculations of global torsion due to feed lines for monopoles for service load combinations.
6. Corrected calculations of the Rooftop Wind Speed-Up Factor, K_s . Previously, the Base Elevation input was not considered in the determination of different K_s zones on a tower. (TIA-222-H)
7. Modified and clarified calculations of the coordinates in the Feed Line Center of Pressure table. Previously, the coordinates were output as zeros for some tower types.
8. Eliminated the $KL/r(y)$ consideration for schifflerized angle and bent plate legs with K Brace Left and L Brace Right bracing (staggered bracing patterns). This change makes the design consistent with the requirements stipulated in Table 4-3 of the Standard. (TIA-222-H)



9. Corrected calculations of grouted pipe strengths. Currently, grouted pipe members generate an error in the design stage. (TIA-222-H)
10. Corrected the sign of overturning moments applied as point loads in models exported to RISA-3D. Previously, the moments in exported models had an incorrect direction. This problem affected only exported models, on the RISA-3D side.

v. 8.0.1.0

1. Added support for the TIA-222-H Standard, except for Section 2.7, Seismic Load Effects. Section 2.7 will be implemented in a future release of the program.
2. Corrected application of wind loads associated with feed lines on lattice towers. Previously, for some feed line configurations, the program might underestimate reactions, displacements, and member forces.
3. Modified generation of feed line eccentric loads for all Feed Line Cluster Treatment settings to more accurately model global torsional effects.
4. Adjusted calculations of wind forces on monopole feed lines to better reflect line spacing parameters.
5. Corrected calculations of areas (A_E), forces (F), and overturning moments (OTM) reported in the Tower Forces tables.
6. Corrected interpolated values of the wind direction factor for flat structural components, D_f , for certain wind directions.