

# Release Notes for RISATower Version 5.4.0

February 5, 2010

This document describes Version 5.4 update for RISATower. Please install this update at your earliest convenience.

***Stand Alone Installation Instructions.pdf*** and ***Network Installation Instructions.pdf*** files are available from the [http://www.risatech.com/s\\_licensing.html](http://www.risatech.com/s_licensing.html) page.

## ***Documentation***

RISATower manual will be installed in the \Program Files\RISA\RISATower\Manuals directory. Hard copies will be made available to those who request them.

## ***New Features and Corrections***

- Canadian Standard CSA-S37-01 has been added to the list of supported standards (structure analysis and member design).
- Input of feed lines for monopoles has been enhanced by the addition of surface-mounted cables. This mode considers line visibility as a function of wind direction vs. line position on the perimeter of the pole.
- Added horizontals to the list of member types for which minimum bracing resistance is calculated. Changed Options item "Calculate Redundant Bracing Forces" to "Calculate Forces in Supporting Bracing Members".
- Load patterns, in accordance with 3.6.2 of TIA-222-G, may now be generated for guyed monopoles.
- New candelabra type – triangular platform has been added.
- Additional display/hide options were added for the Material Take-Off page.
- Enforced synchronization of input and output files to ensure project file integrity.
- Added automatic program update notification.
- Irregular projected area calculation, in accordance with 2.6.9.1.1 and 2.6.9.1.2 of TIA-222-G has been added. Previously the additional areas of attachments had to be estimated and added to the round and flat areas on the Advanced input page.
- Corrected calculation of torque due to wind loading on dishes.
- Corrected calculations of projected area for buried poles (socketed into base tower structures).
- Corrected calculation of ice weight for tapered poles.
- Fixed self-weight calculation error for grout filled pipes.

- Corrected linear weight of cables value displayed in the database editor dialog boxes (metric units only).
- Corrected calculation of bending and torsional capacity of round and polygonal monopoles.
- Corrected calculations of bending strength of truss-leg members.
- Arbitrary sections were previously assumed to be non-slender in bending. Added consideration of variable QaQs value in bending calculations. This change does not affect compression capacity calculations for which the variable QaQs was always considered.
- Corrected error in bolt bearing calculations for multiple bolt configurations under TIA-222-G.
- Corrected shear capacity calculations for certain bolt grades for which the “thread included/excluded from the shear plane” aspect was not properly considered.
- Corrected Inside Bend Radius value displayed in the database editor dialog boxes (metric units only).
- Fixed display bug on the Deflection screen. Previously the tilt for bottom sections of monopoles was not shown correctly.
- Candelabra points of loads application are now connected to the candelabra pedestals with weightless rigid beams. Previously that linkage was provided by master-slave conditions of the center joint and corner joints of the pedestals.
- Fixed display problem with density of material and weight of guys in metric unit system. Rare

## **Release Notes for RISATower Version 5.4.1**

February 10, 2010

This document describes Version 5.4.1 update for RISATower. Please install this update at your earliest convenience.

### ***Corrections***

- Upper Structure generation bug fixed. Previously, under certain circumstances, superfluous sections were created.
- Default value of Gh for monopoles corrected.
- Print layout of the Material Take-Off page corrected.
- Network license authorization problem fixed.

## Release Notes for RISATower Version 5.4.1.5

March 4, 2010

This document describes Version 5.4.1.5 update for RISATower. Please install this update at your earliest convenience.

### ***Corrections***

- Corrected calculation of net tension area for solid round members.
- Restored negative horizontal offset option for feed lines on lattice towers.
- CSA S37-01: Calculation of factored resistance of guy cables has been corrected ( $\phi = 0.6$ ).
- Corrected application of user-specified Gh values for guys under TIA-222-G. Previously the Gh = 0.85 was used regardless of user input.
- Fixed display of the "Crest Height" value on the Material Take-Off page.

## Release Notes for RISATower Version 5.4.1.8

April 8, 2010

This document describes Version 5.4.1.8 update for RISATower. Please install this update at your earliest convenience.

### ***Corrections***

- Excluded horizontals of x-braced sections from calculations of the minimum bracing resistance force.
- Corrected calculation of Force Coefficient Cf for monopoles with surface feed lines.
- Corrected calculation of torque due to monopole feed lines eccentricity.
- Projected area of monopole attachments now includes all feed line component types.
- Changed the tributary area for the IPA equivalent CaAa calculation from all faces to a single face (lattice towers). This does not modify the way the IPAs are entered, only the way the additional EPAs are computed. Previously the resulting equivalent EPAs were overestimated.
- Corrected generation of service load combinations under the Canadian S37-01 Standard.

# Release Notes for RISATower Version 5.4.2

June 18, 2010

This document describes Version 5.4.2 update for RISATower. Please install this update at your earliest convenience.

## ***Corrections***

- Corrected the calculation of  $F_a$  for truss-leg diagonals for TIA/EIA-222-F and earlier. Previously the limiting slenderness ratio  $C_c$  was based on  $F_y = 36$  ksi for all steel grades.
- Corrected the calculation of block shear strength for angle members. Previously under certain input conditions the bolt edge distance was used to compute the tensile failure area.
- Corrected the application of candelabra  $C_{aA}$  loads (Total and Strut) to the structure. In some tower models with tension-only bracing the  $C_{aA}$  areas entered on the Candelabra page were ignored.
- Corrected the calculation of bearing capacity for single bolt connections under TIA/EIA-222-F and earlier. Previously, the  $F_p$  limiting value was assumed as  $1.0 * F_u$ .
- Corrected the contents of the Guy Data table in the analysis/design Report. Previously when guys at the same elevation were entered on multiple lines of the spreadsheet, some data in Cable Weight column were superfluous.