RISA Webinar Q&A



Metal Building Design in RISA

October 16, 2014

- **0**: Is this a stand alone program or would it be included with a RISAFloor license?
- A: There are two versions of RISAFloor; RISAFloor or RISAFloor ES. RISAFloor ES includes all of the features of RISAFloor plus elevated slab design.
- **Q**: When she brought in the DXF her layers, one was centerline. But does RISA use centerlines of the members, or centroids?
- A: Members are drawn using their centerlines.
- **0**: Can we copy members in a specific plane instead of drawing each purlin?
- A: You can copy members individually or in groups. You can also copy multiple times in one command (i.e. 10 joists at 24" oc).
- **Q**: But the purlins are located on incline plane.
- A: I would recommend using the copy feature on a flat plane and then using the rotate feature to rotate up to the slope.
- **0**: Standard industry practice in to lap the girts. How would you model in the lapped section properties for girts and purlins in RISA-3D?
- A: You would design them as fully fixed like Debbie did with the purlins.
- **0**: Can you model purlins and girts with top flange fully braced per the AISI? Can you model the purlins with a percentage of top flange braced for floating roof panels?
- A: You can specify bracing by enter the Unbraced Length (Lcomptop). If you enter "Segment" RISA-3D will assume that each joint along its length is a brace point. Or you can enter the actual unbraced length as a value (i.e. 2'). If the Unbraced Length field is left blank, the program assumes the full length of the member.
- **0**: Wouldn't you apply your wind area loads to span up and down to apply the load to your wind girts and be able to size them?
- A: The engineer chooses which direction to apply the wind load. This is not automated by the program.
- **0**: How do you model the wind load on the roof? Why was this not modeled?
- A: The wind load was applied as an area load on the roof. Debbie modeled this about 10 minutes ago. You can model wind loads as joint, line or area loads.

- **0**: Does RISAConnection do seismic connections?
- A: RISAConnection currently designs per the AISC 360 code. The AISC 341 Seismic Manual will be included in the RISAConnection version 5 release which is scheduled for late 2014.
- **0**: Does RISAConnection handle SCBF's?
- A: RISAConnection does not currently design SCBF's. However, we do plan to add this in a future version.
- **0**: Does RISA Connection include Canadian codes?
- A: RISAConnection includes US and Canadian codes.
- **0**: In the version 5 release will the connections consider Eccentrically Brace Frames.
- A: RISAConnection version 5 does not include eccentrically braced frames. We do plan to add this in a future release.
- **0**: How do you account for direct wind uplift for the footing design?
- A: You can apply uplift loads to RISAFoundation. As long as the footing/foundation isn't in net uplift the program will calculate the design.
- **0**: Why was load applied in the direction perpendicular to purlins but parallel to girts?
- A: Because we wanted to demonstrate two different ways to do it.
- **0**: If you do not have a release of the purlins at the frame will you not be introducing minor axis bending to the rafters? How do you avoid this and maintain continuity of the purlin string?
- A: You would use Rigid End Offsets to model this.
- **0**: When applying the loads in the z direction or on the end walls the area was not applied to the entire area. In applying area loads is it only possible to select four points or the area of a square or rectangle.
- A: You can apply it to any four sided area. For demonstration purposes we simplified the application.
- **0**: Girts and purlins were modeled at column and beam centerlines. Is there any reason to model them at the outside flange location on the framing members for additional accuracy in a 3-D model with 3-D loading?
- A: You would have to use Rigid Offsets to do this. This would be time consuming and there wouldn't be much difference in the results.