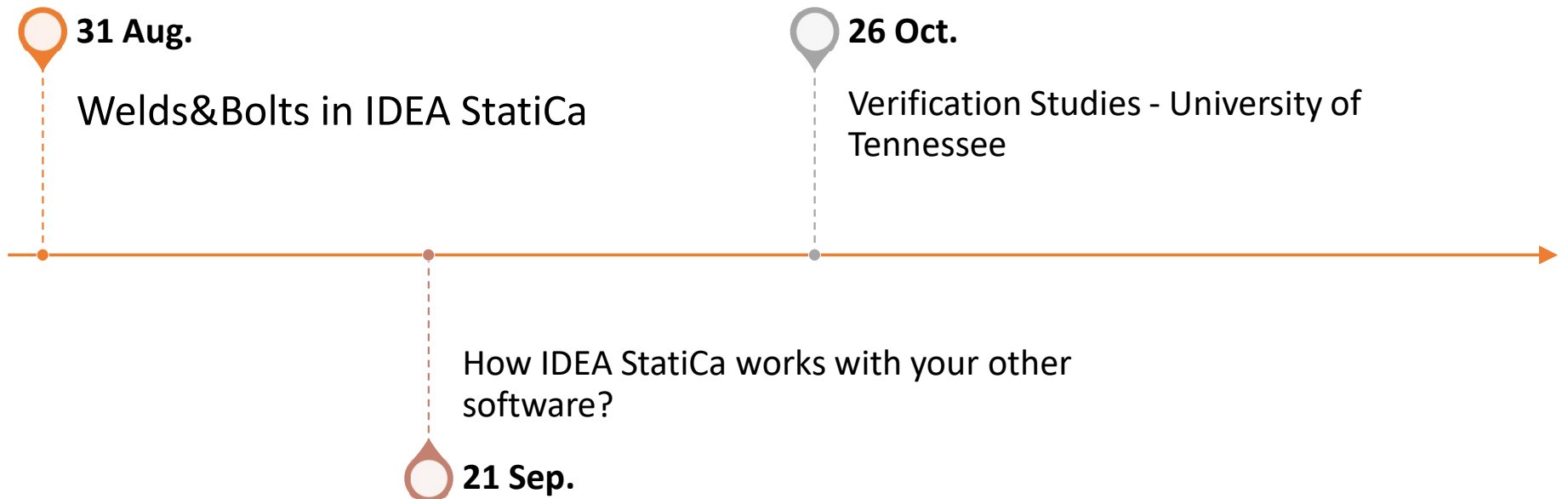


Modeling Tips&Tricks – August 3<sup>rd</sup> Noon – EDT

# Upcoming webinars IDEA StatiCa



# Tips 1-3

## 1. Offsets

Avoid using offsets when modeling members

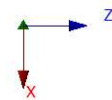
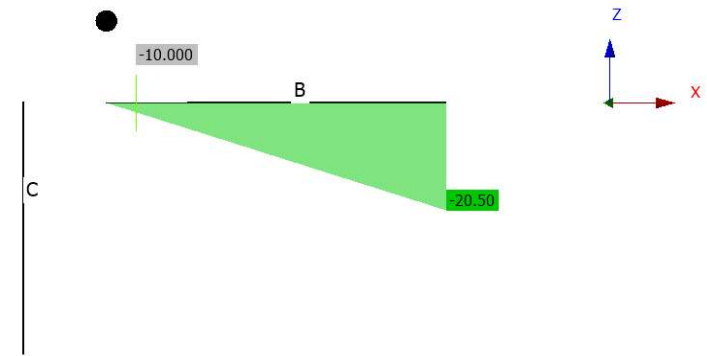
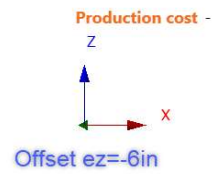
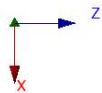
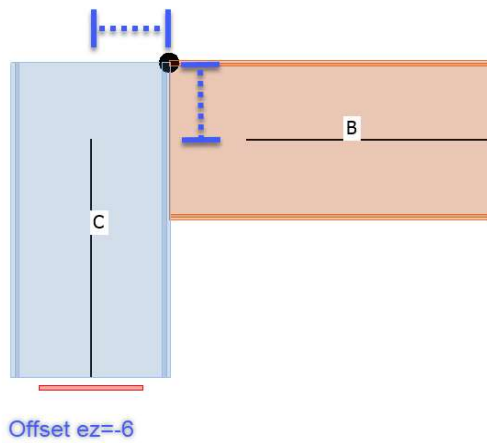
## 2. Operations

Use operations instead of offsets in member

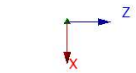
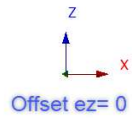
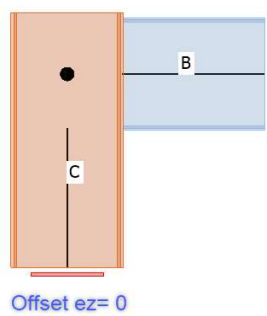
## 3. Model

Model type

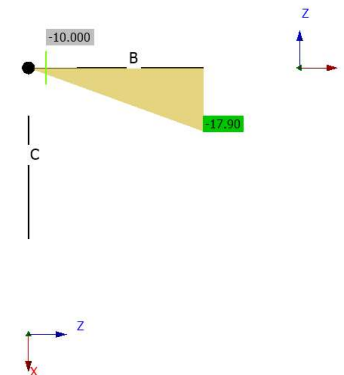
# Using offsets



# Using operation



- Members
  - C
  - B
- Load effects
  - LE1
- Operations
  - CUT1
  - CUT2



Production cost - 8 US\$

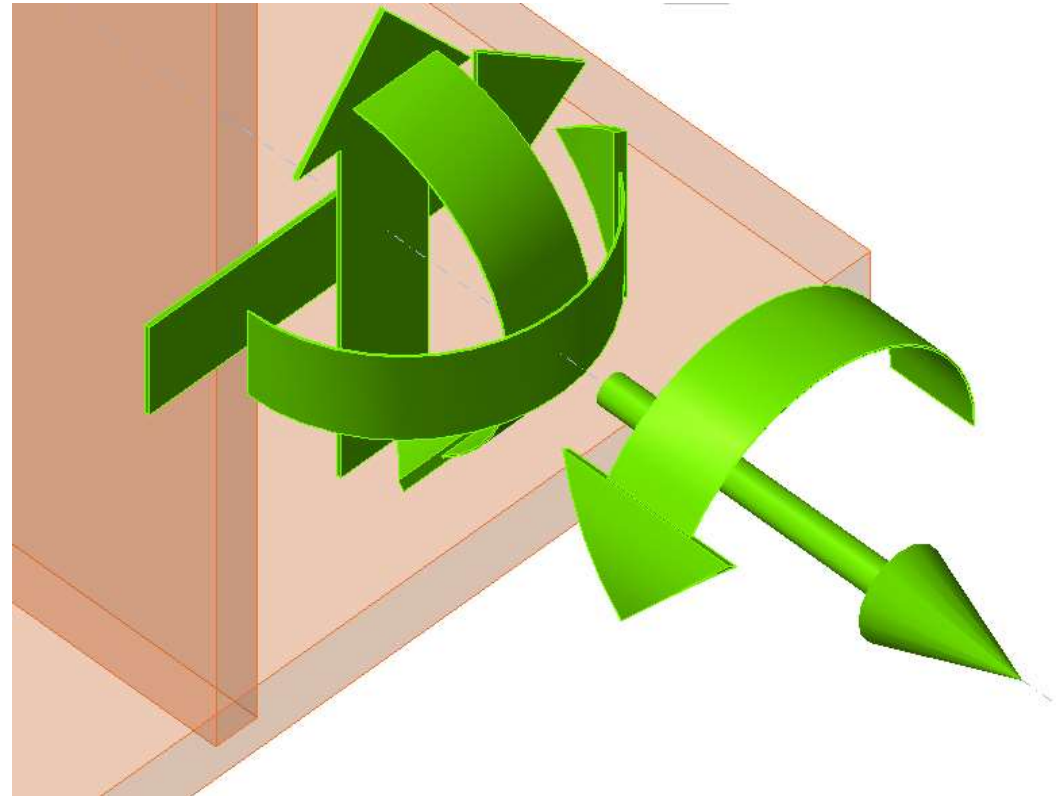


- Members
  - C
  - B
- Load effects
  - LE1
- Operations
  - CUT1
  - CUT2

# Tip 3

## Model type

- **N-Vy-Vz-Mx-My-Mz**
- Forces/moments in all directions
- Boundary condition: Fully fixed

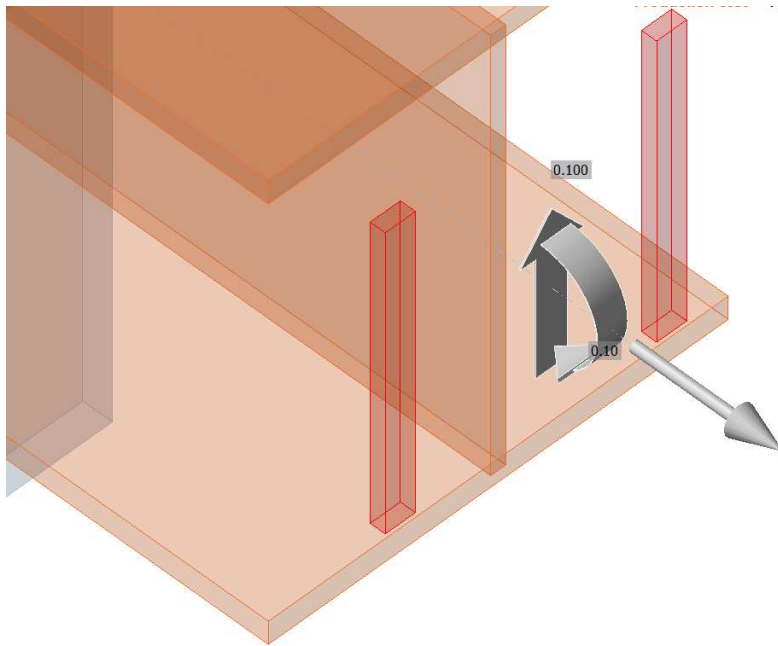


# Tip 3

## Model type

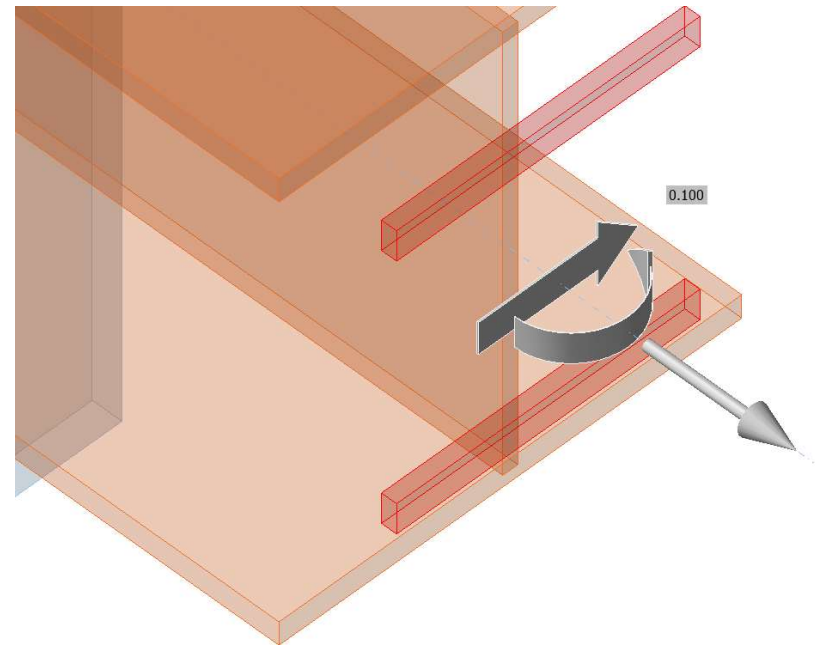
**Forces: N-Vz-My**

Boundary condition: Fixed in strong axis ( $V_y$ ,  $M_x$ ,  $M_z$ )



**Forces: N-Vy-Mz**

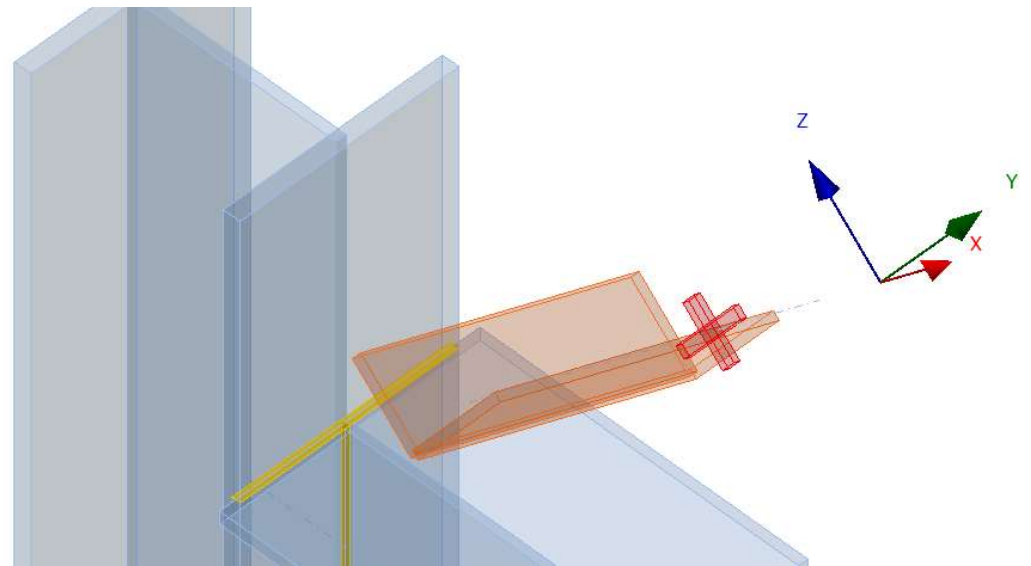
Boundary condition: Fixed in weak axis ( $V_z$ ,  $M_x$ ,  $M_y$ )



# Tip 3

## Model type

- Forces:  $N$ ,  $V_y$ ,  $V_z$
- Boundary condition: Pinned





## Tips 4-10

4. Stiffening plate – Using a DXF to create plate geometry

5. Start with larger than required plate size and use plate cut operation to align with members

6. Tooltips (plate info and help)

7. Gusset operation – Existing plate

8. Plate as a **doubler** in another plate/member (shear tab - gusset connection, filler plates)

9. Bolt grid operation

10. Using Plate Editor: Offset in gusset plate to add a gap

# Tip 4. AISC Design Guide #29 – Example 6.1a

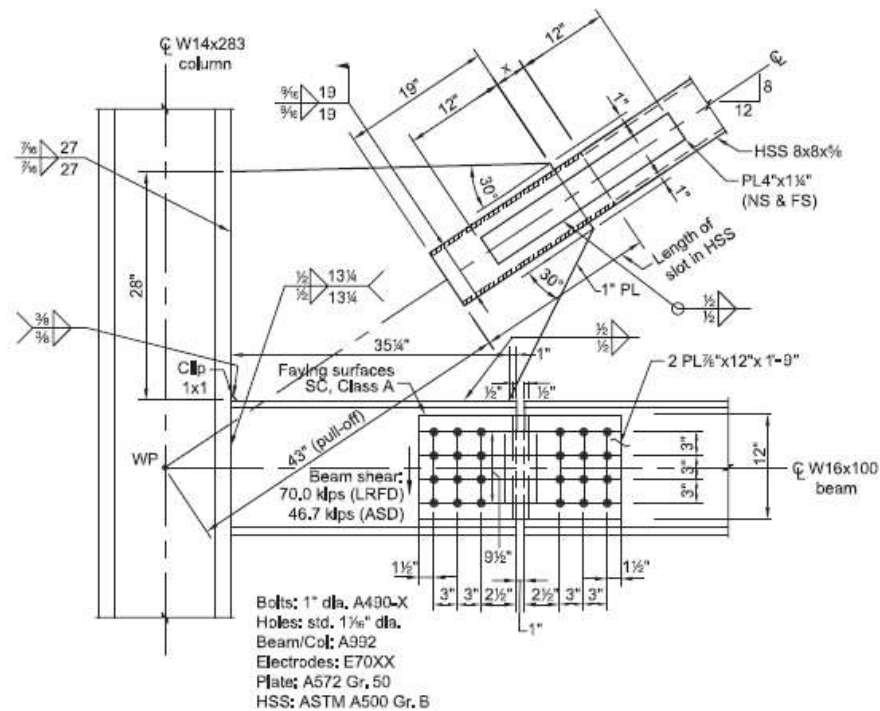
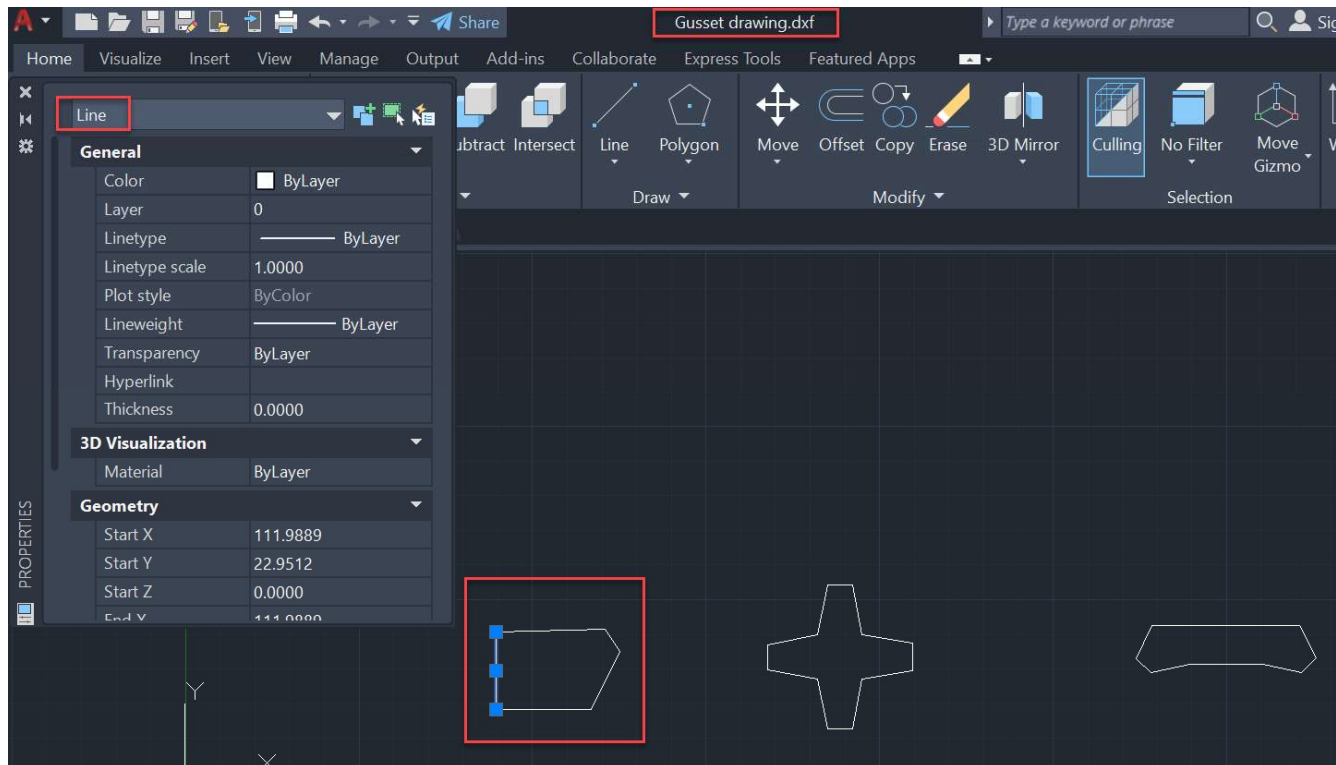


Fig. 6-1. High-seismic design with hinge (moment release).

## Tip 4. DXF Drawing



## Tips 11-15

11. Cleat operation connected to a plate

12. Stiffening member (stub member, joist connection to a beam)

13. Extended shear tab (load position)

14. Lifting lugs

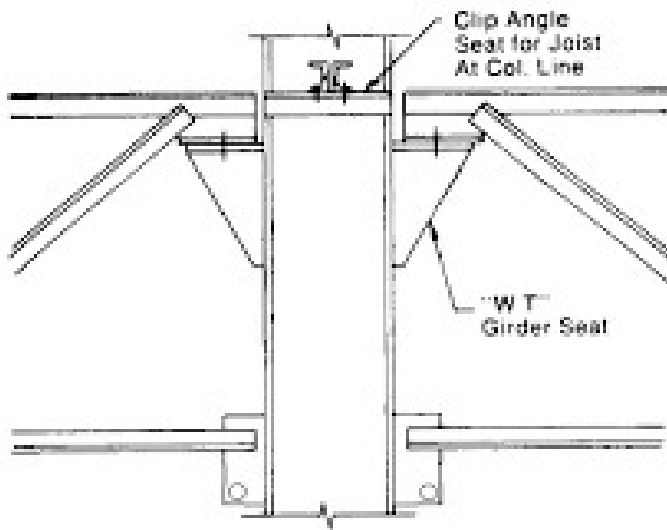
15. Weld operation will show only plates or stiffening member before it.

BONUS. Connection browser (Selection option)

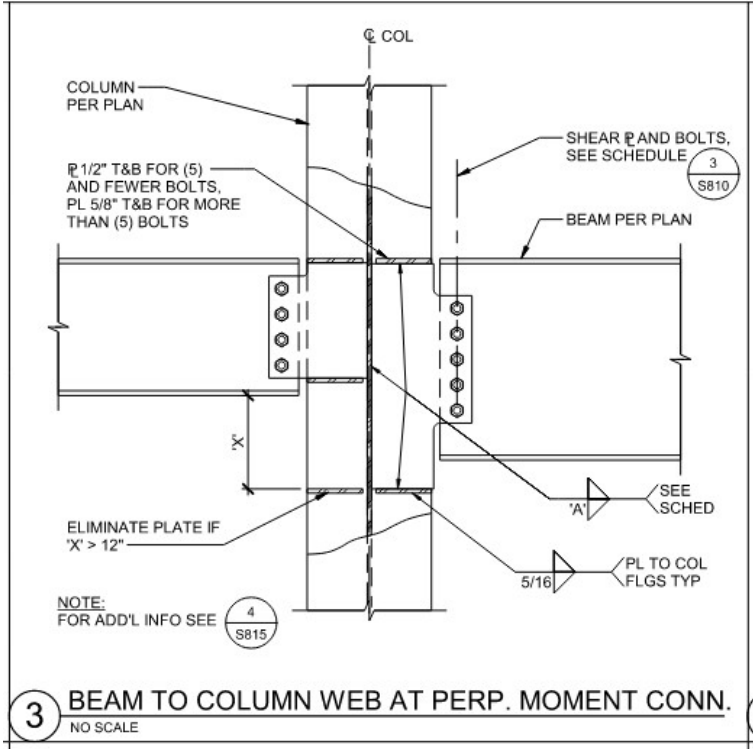
# Tip 12. Stiffening member (stub member, joist connection to a beam)

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FLOOR JOIST GIRDER TO COLUMN DETAILS



# Tip 13. Extended shear tab



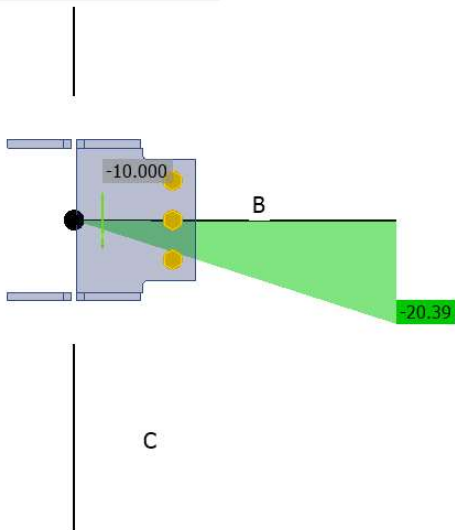
# Tip 13. Load position -Node

▼ **Model**

Model type: N-Vy-Vz-Mx-My-Mz

Forces in: Node

Production cost - 101 US\$



Members

- C
- B

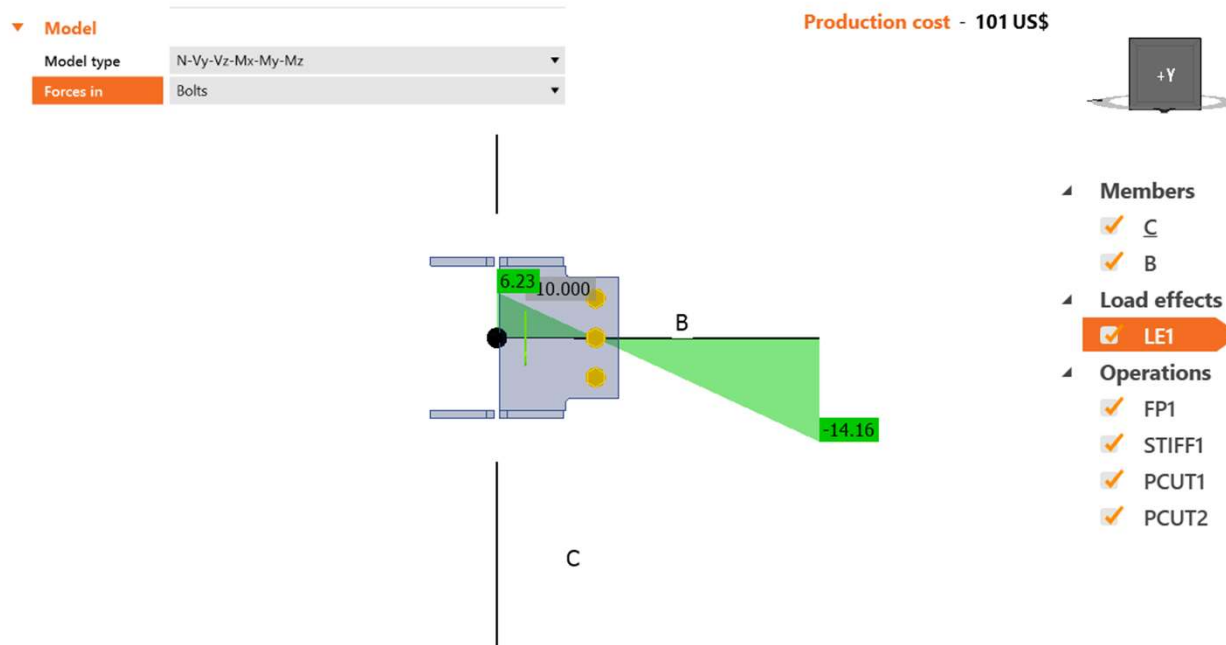
Load effects

- LE1

Operations

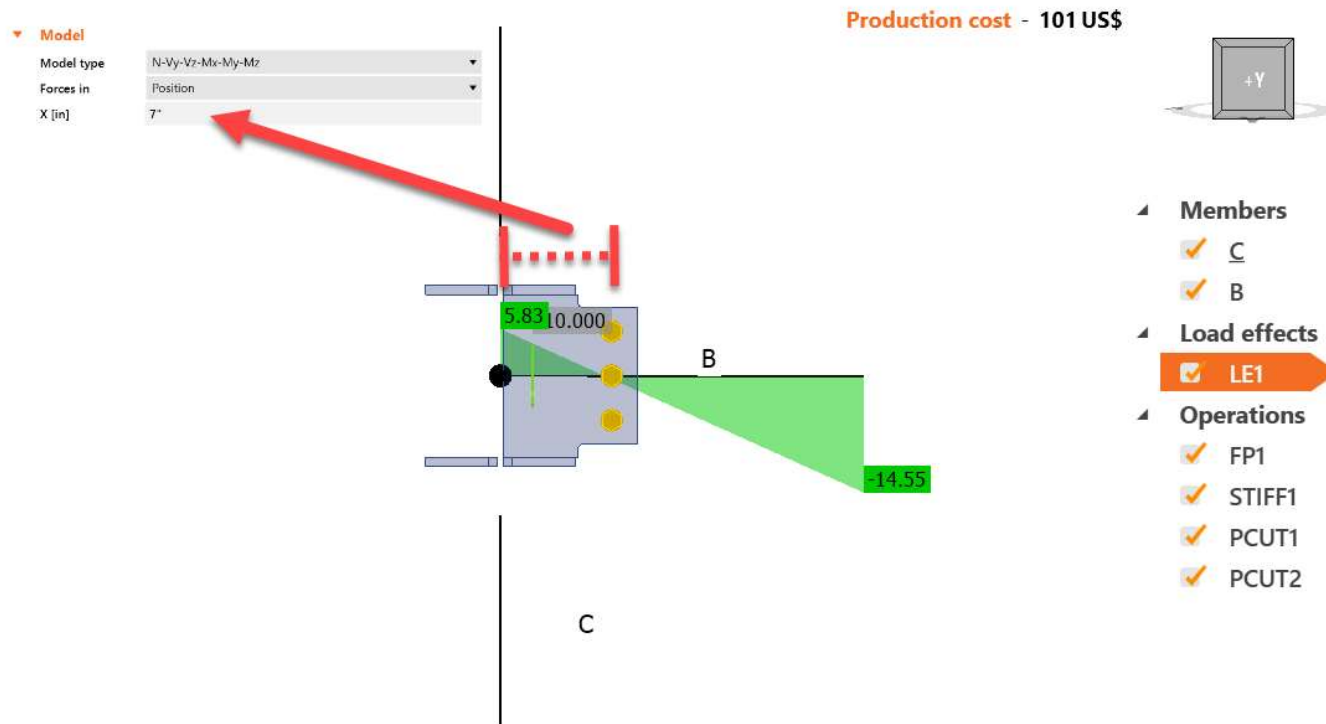
- FP1
- STIFF1
- PCUT1
- PCUT2

# Load position - Bolts

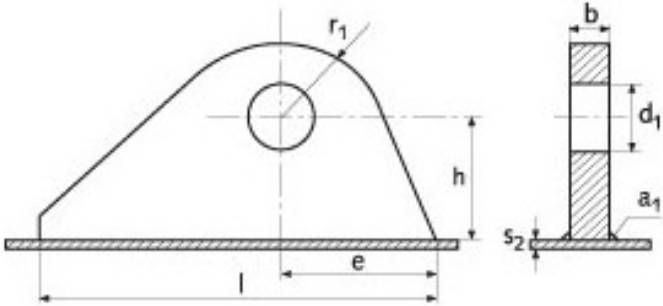
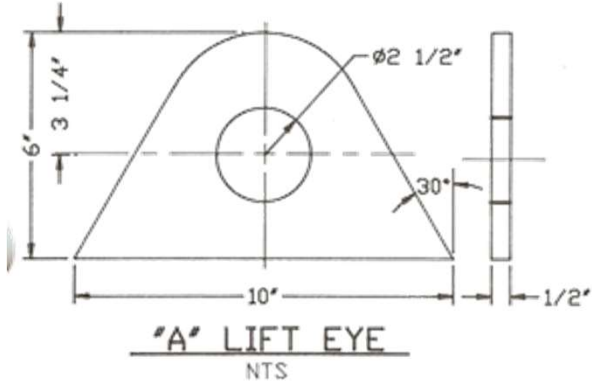




# Load position= 7in

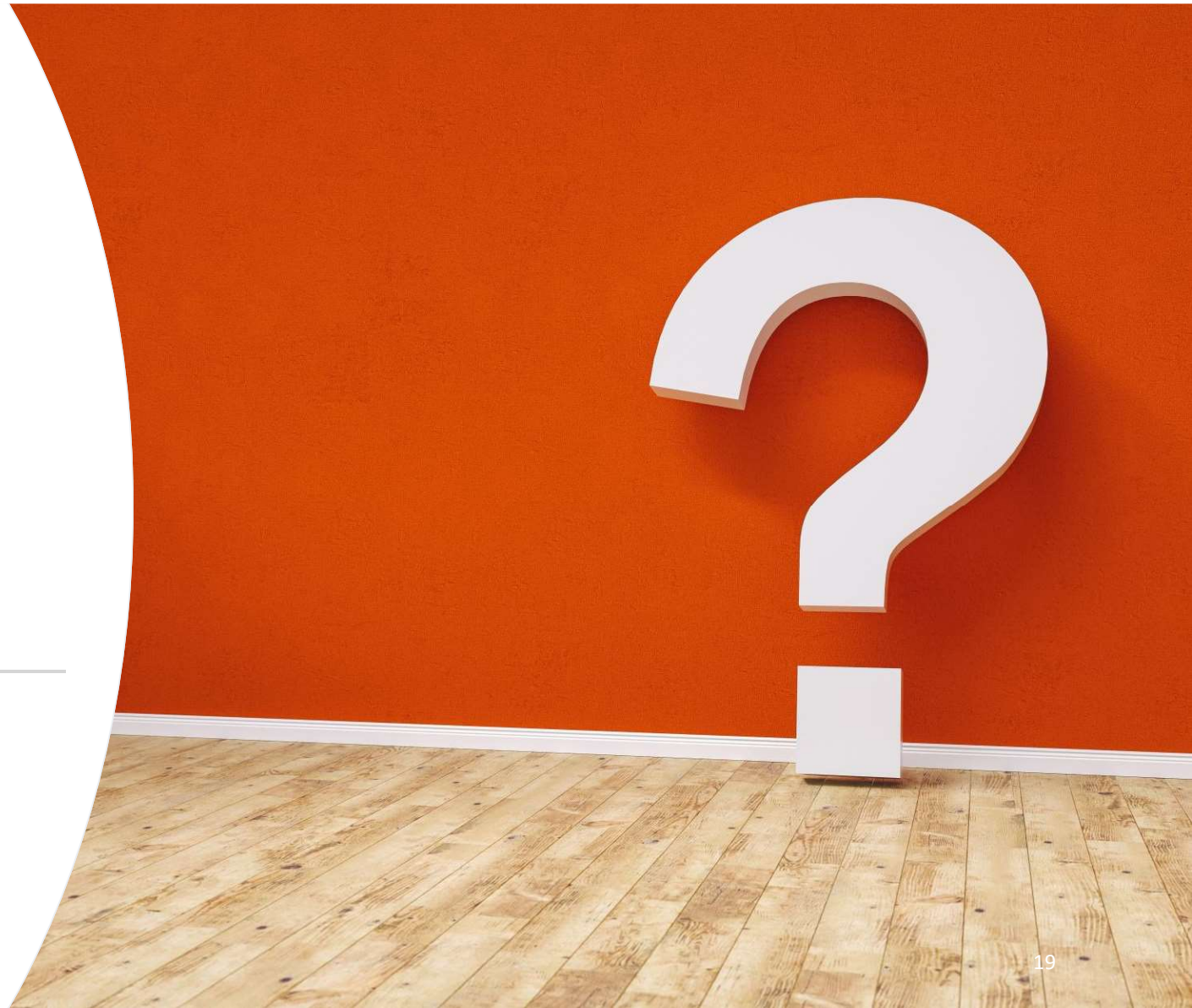


# Tip 14. Lifting lug

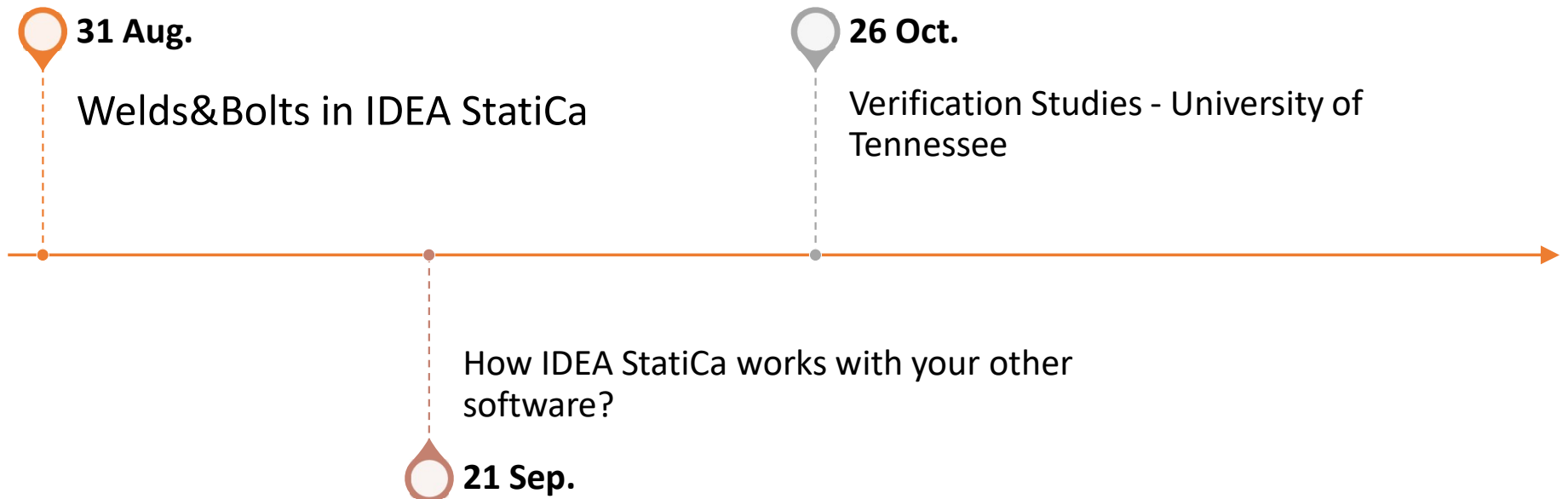




# Q&A



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# Thank you



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