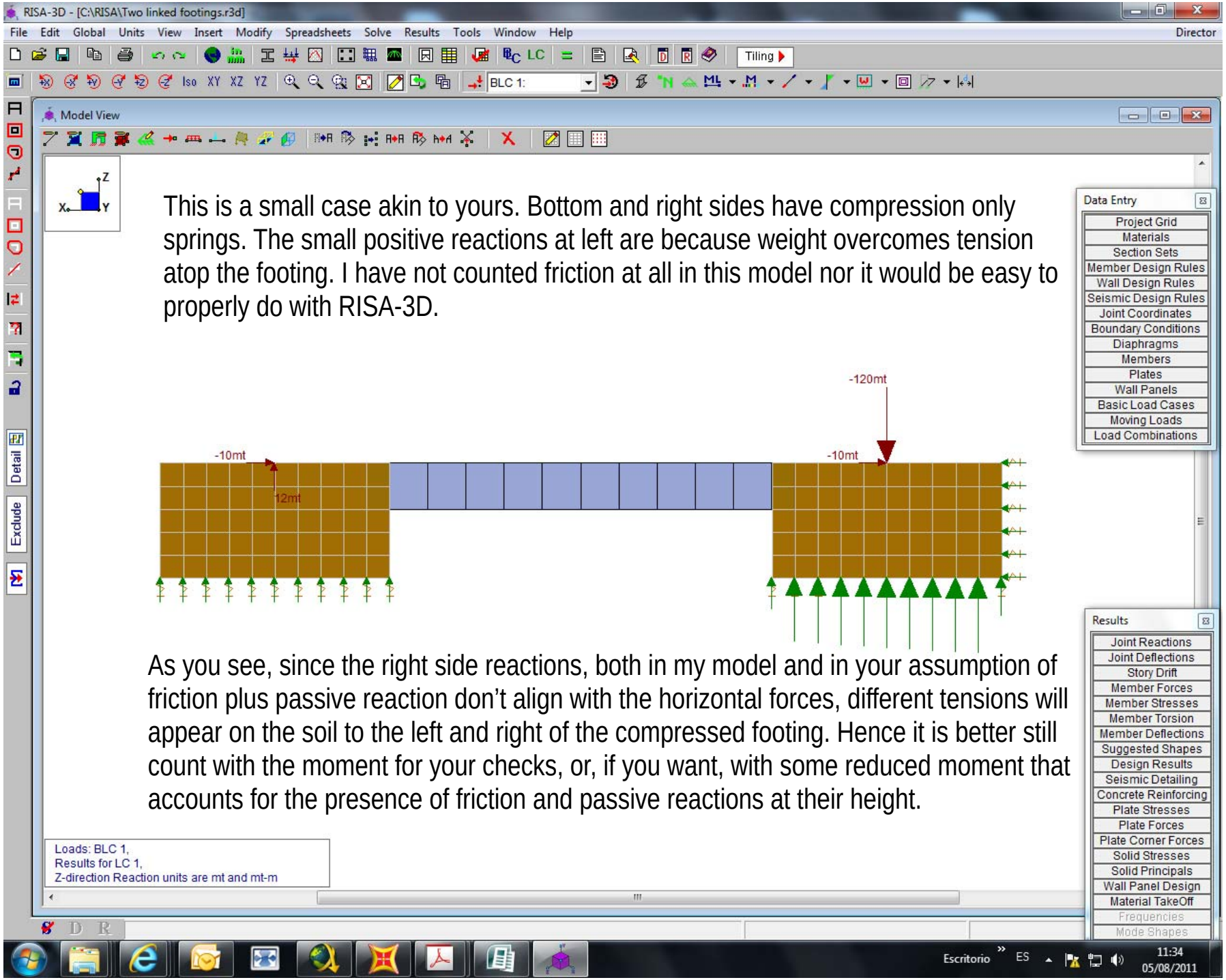
RISA-3D - [C:\RISA\Two linked footings.r3d]
File Edit Global Units View Insert Modify Spreadsheets Solve Results Tools Window Help
Director
Tiling
BLC 1:
Model View
This is a small case akin to yours. Bottom and right sides have compression only springs. The small positive reactions at left are because weight overcomes tension atop the footing. I have not counted friction at all in this model nor it would be easy to properly do with RISA-3D.
-120mt
-10mt
-10mt
12mt
As you see, since the right side reactions, both in my model and in your assumption of friction plus passive reaction don't align with the horizontal forces, different tensions will appear on the soil to the left and right of the compressed footing. Hence it is better still count with the moment for your checks, or, if you want, with some reduced moment that accounts for the presence of friction and passive reactions at their height.
Loads: BLC 1,
Results for LC 1,
Z-direction Reaction units are mt and mt-m
Data Entry
Project Grid
Materials
Section Sets
Member Design Rules
Wall Design Rules
Seismic Design Rules
Joint Coordinates
Boundary Conditions
Diaphragms
Members
Plates
Wall Panels
Basic Load Cases
Moving Loads
Load Combinations
Results
Joint Reactions
Joint Deflections
Story Drift
Member Forces
Member Stresses
Member Torsion
Member Deflections
Suggested Shapes
Design Results
Seismic Detailing
Concrete Reinforcing
Plate Stresses
Plate Forces
Plate Corner Forces
Solid Stresses
Solid Principals
Wall Panel Design
Material TakeOff
Frequencies
Mode Shapes
Detail
Exclude
Escritorio
ES
11:34
05/08/2011