BES322421

Everything You Always Wanted to Know About Robot Structural Analysis, but Were Afraid to Ask

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Learning Objectives

- Discover the current possibilities of using Robot Structural Analysis for design codes
- Choose possible and recommended work scenarios with the use of Revit and Advance Steel programs
- Learn how to use Robot Structural Analysis Professional efficiently
- Learn how to select the appropriate design module and type of analysis in Robot Structural Analysis Professional

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Description

If you've already used calculation programs in structural design, it's time to get to know the Robot Structural Analysis Professional software better. You'll learn how to use its strengths, design codes, advanced analysis, and data exchange. If you don't go forward, you go back—and the Robot Structural Analysis software doesn't stand still....

Speaker(s)

Dominik Malec
Structural Engineer with 4 years of experience as Structural Engineer Assistant – designing of steel structures, bridges, residential and office buildings, 3 years of experience as Civil Engineer Estimator– preparation of tenders and schedules for highway bridge and road contracts.
And over 15 years of experience as Technical Support Specialist and Trainer (Robobat, Graitec). - Robot Structural Analysis, Autodesk Advance Steel and other software.
Trainings and implementations for engineers in China, Denmark, Estonia, France, India, Indonesia, Ireland, Italy, Latvia, Lithuania, Norway, Romania, Russia, Spain, United Kingdom and Poland.
Currently working as Senior Technical Support Specialist in Autodesk.

Does Robot Work?

To answer this question, just download, install and run the program.... But this is probably already behind you.

If no one has shown you how to use the program before, you are probably like most engineers: you are self-taught.
Actually, everything that is most important can be found [here](#):

and [here](#):
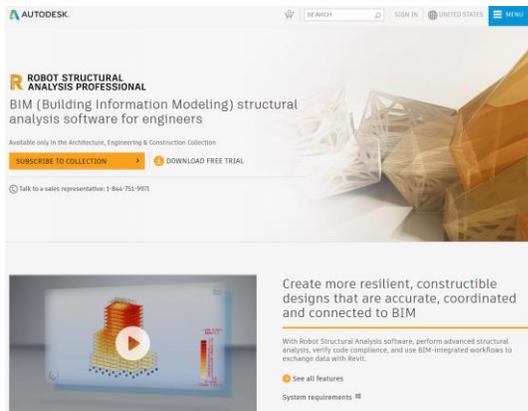
In a crowd of information, sometimes the simplest things seem to disappear.
What can you do with Robot? How to start and what to avoid?

I will show you how to prepare a program to work with a selected topic on the basis of Robot trainings I have conducted in the past. I will also show you how to deal with when someone will put you at a colleague's computer....

What Is Instability?

We're starting to model the construction in Revit. Or better yet. Someone sends us a model from Revit.
Perhaps differently. The steel structure was modeled from beginning to end in Advance Steel.

We are engineers, there is no such model that we would not load into the Robot!

Loads, supports, calculations, calculation results, calculation results, internal forces.... STOP!
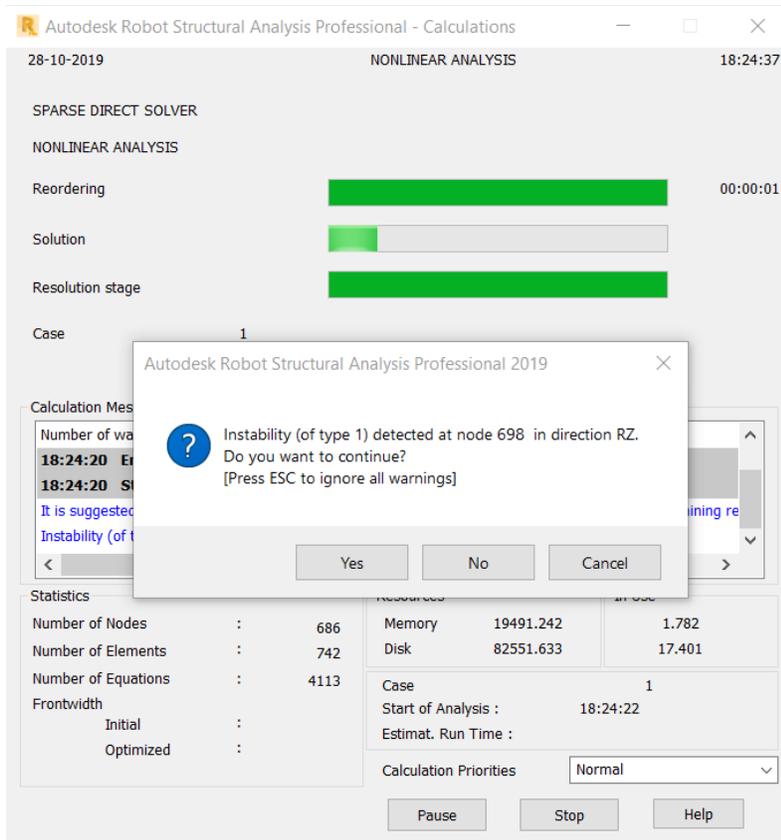
Instability of the first, second, third type!

Is there a chance to be emotionally and mentally stable after using the Robot?
Understanding is the first step!

Buckling or Lateral-Buckling Choice Is Yours?

It's easy, it was at school... I use it every day...

I'm sure you know every steel standard better than I do!

And how would you explain this to your child? Maybe a few sheets of paper and "almost origami"? Maybe that's enough to explain the difference between buckling and lateral buckling?
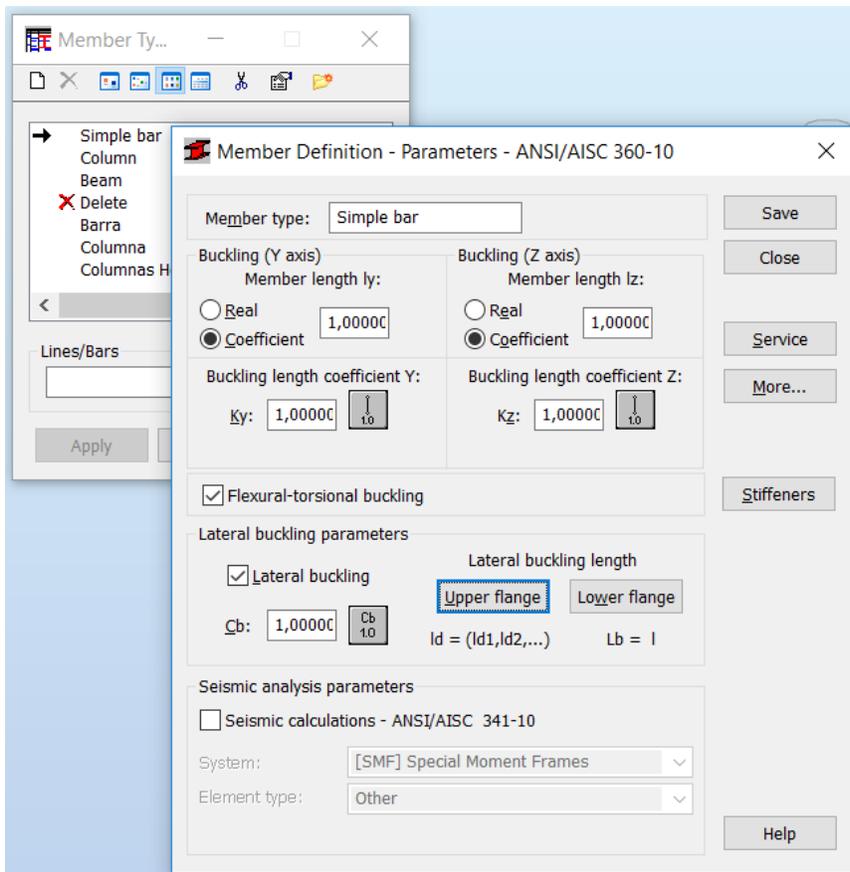
Tension, compression and bending... Can you tell me where the buckling and lateral buckling appear?
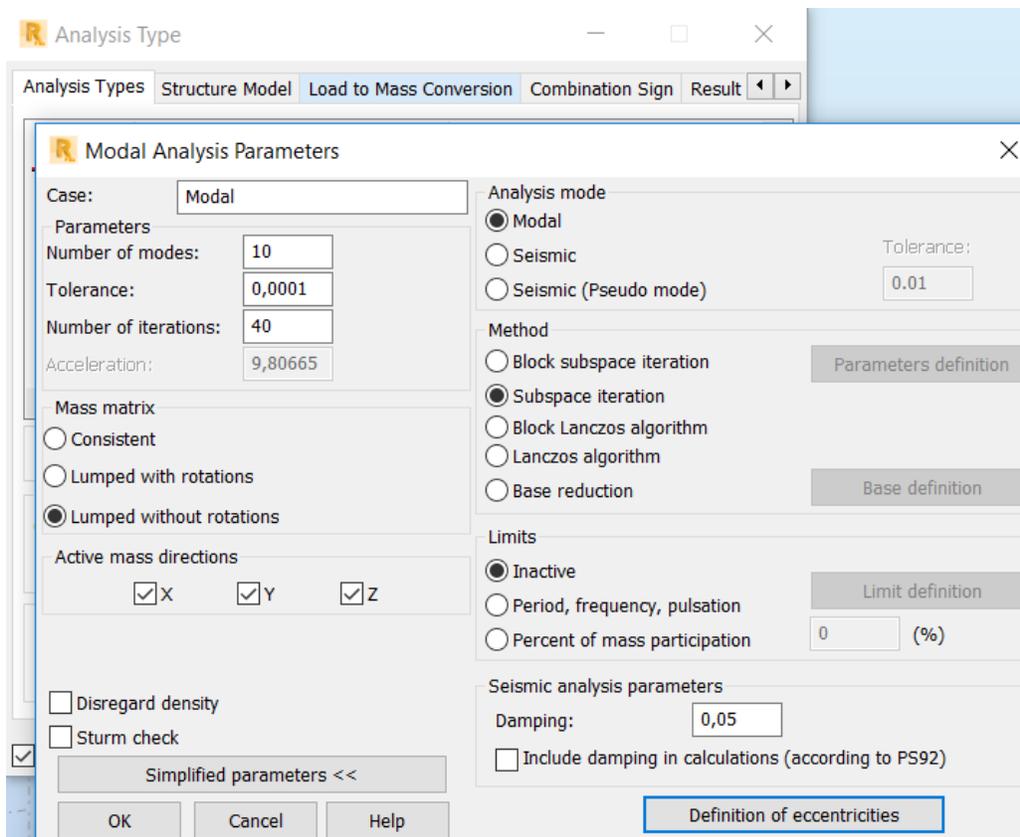
Robot can help with that too.

Can you play guitar?

Or do you know how to tune your guitar?

Why does one string twitch and the other not when it sounds like a camertoon?
What exactly is it? Music lesson or physics?

Let's look at the Robot structure model as a musical instrument.
What does modal analysis have to do with guitar tuning?

Why, in order to perform advanced dynamic analysis, it is worth spending some time
understanding modal analysis and Natural Frequency.