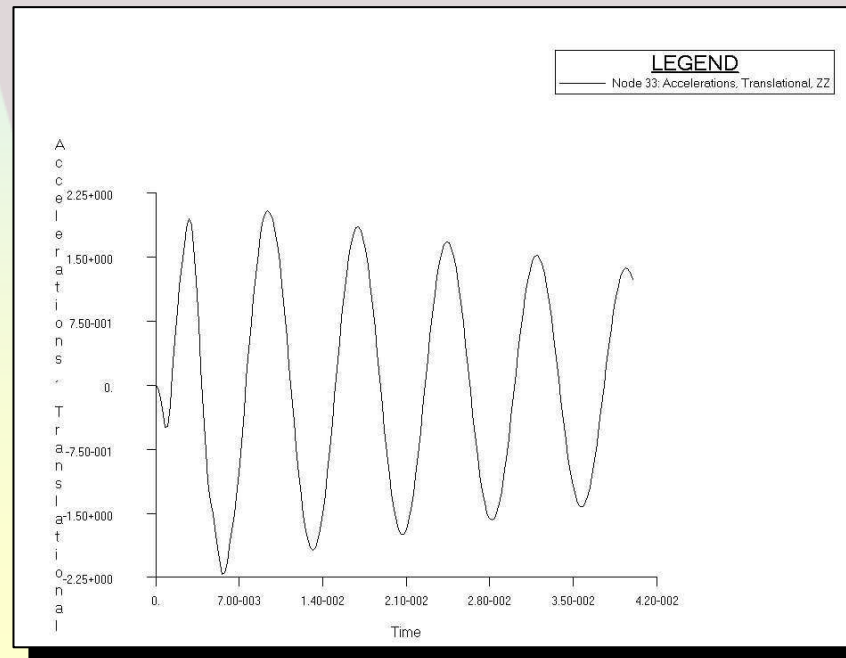


# WORKSHOP 8

## DIRECT TRANSIENT RESPONSE WITH ENFORCED ACCELERATION

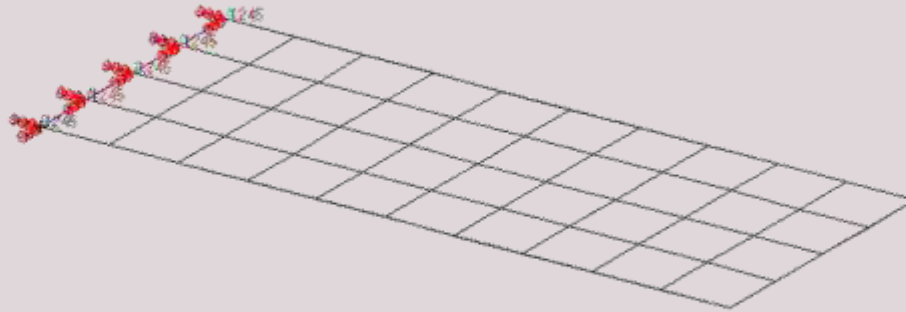
### AUTOMATIC METHOD



# DIRECT TRANSIENT RESPONSE WITH ENFORCED ACCELERATION

## Problem Description

Using the Direct Method, determine the transient response due to a unit acceleration sine pulse of 250 Hz applied at the base in the Z-direction. Use a structural damping coefficient of  $g = 0.06$  and convert this damping to equivalent viscous damping at 250Hz. Below is a finite element representation of the flat plate. It also contains the loads and boundary constraints.

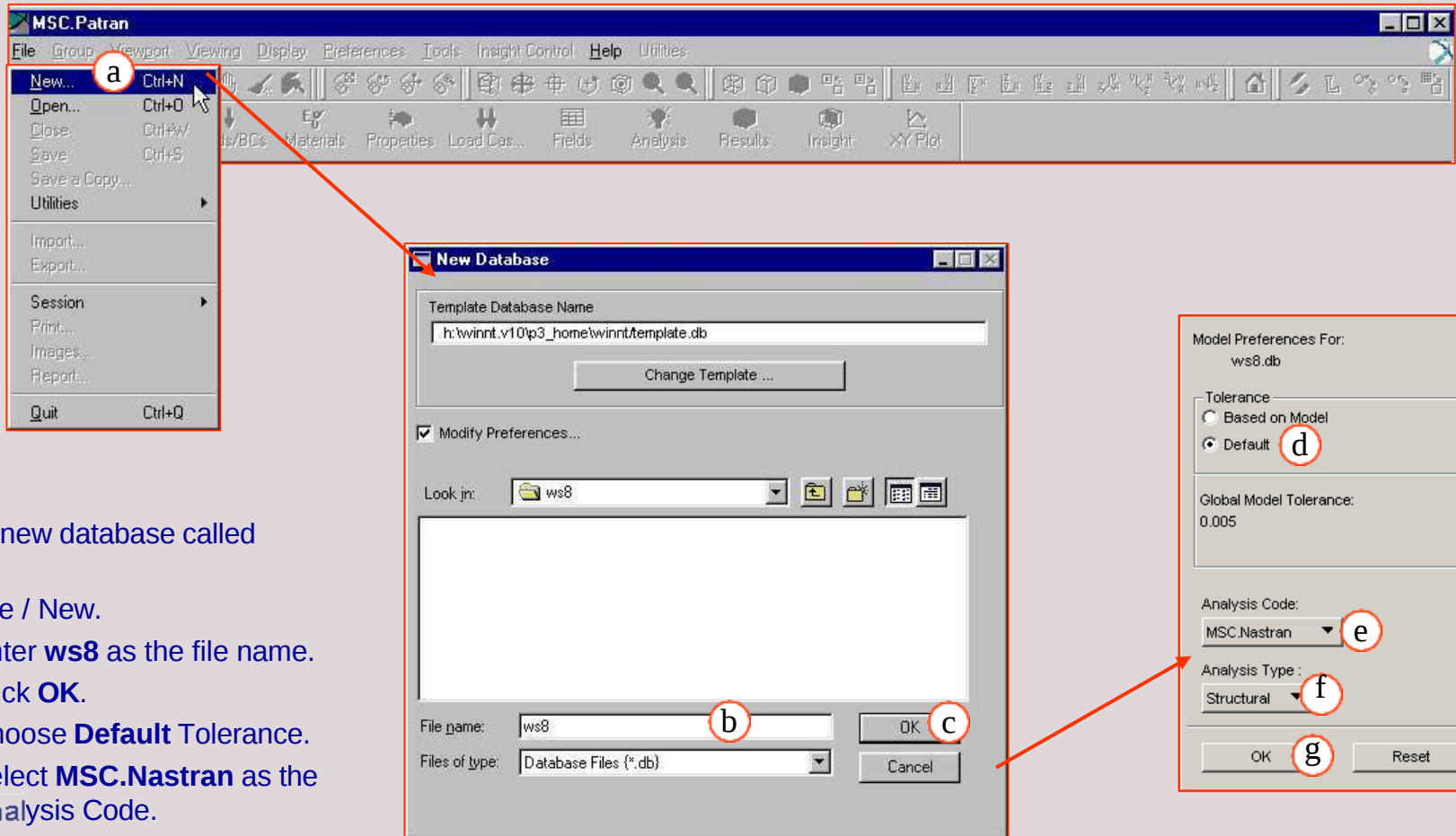


# DIRECT TRANSIENT RESPONSE WITH ENFORCED ACCELERATION

## Suggested Exercise Steps

1. Import the model from Workshop 1a.
2. Create a non-spatial field for the acceleration load.
3. Create a time dependent load case.
4. Create the time dependent unit acceleration.
5. Modify the original constraints from the imported database.
6. Submit the model to MSC.Nastran for analysis.
7. Attach the .XDB results file.
8. Post Process results – create X vs Y graph of displacements.

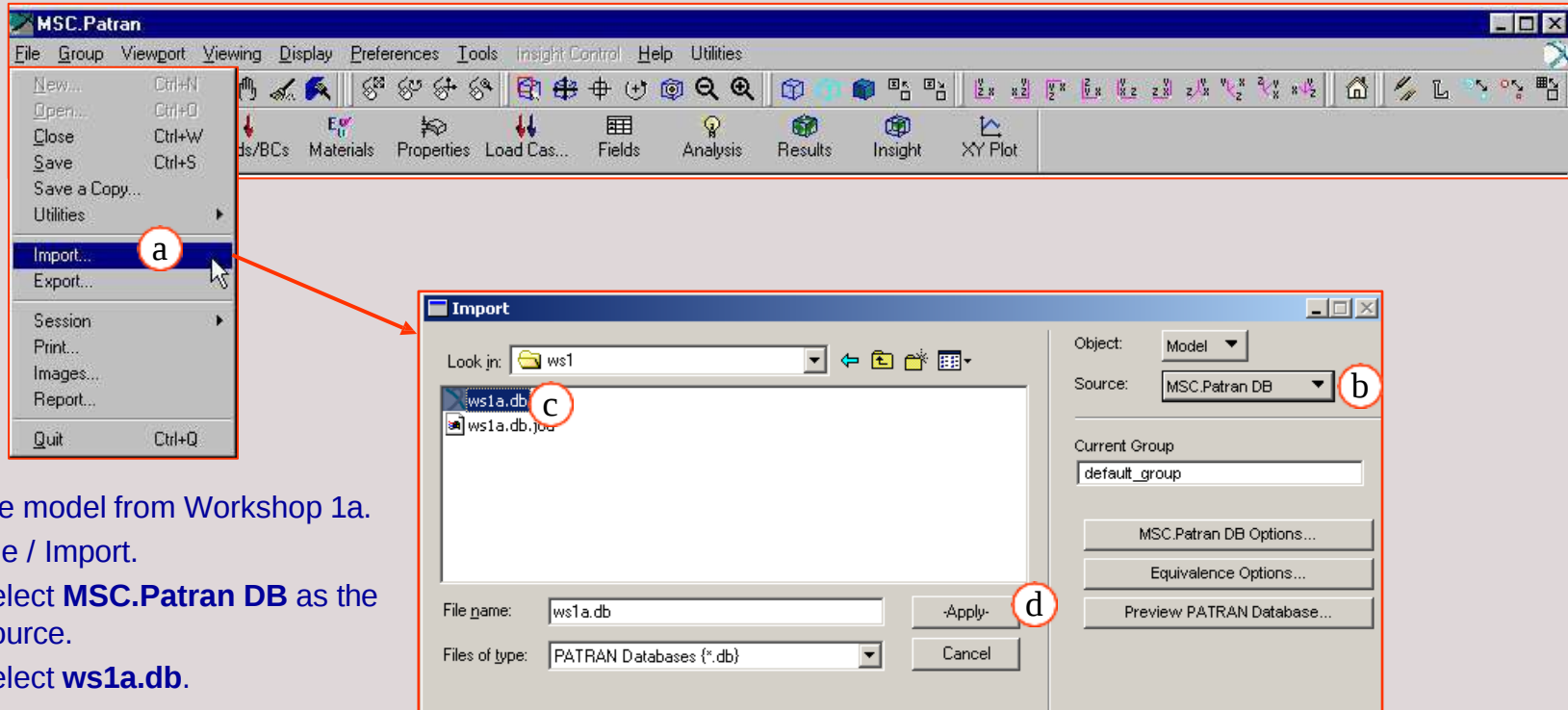
# CREATE NEW DATABASE



Create a new database called ws8.db.

- File / New.
- Enter **ws8** as the file name.
- Click **OK**.
- Choose **Default** Tolerance.
- Select **MSC.Nastran** as the Analysis Code.
- Select **Structural** as the Analysis Type.
- Click **OK**.

# Step 1. File / Import



Import the model from Workshop 1a.

- File / Import.
- Select **MSC.Patran DB** as the Source.
- Select **ws1a.db**.
- Click **Apply**.
- Click **OK** when the Patran Database Import Summary appears.

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/666102122030010034>