

00xy-A-This is a Sample Example

00xy - Beispiel Nummer xy

A - class (here: Analytical Verification Example)

This is a Sample Example - Short Title

A0 Classification

Class	e.g. Analytical Verification Example
Type of Structure	e.g. Planar Structure
Mechanics	e.g. Statics - First-Order Theory
Material Law	e.g. Elastic
Building Material	e.g. Steel
Design Type	e.g. Deformation Design
Design-Code	e.g. DIN EN 1993
Status	<div style="text-align: center;"> e.g. published on 23-03-2020 and qualified on 27-03-2020</div>

A1 Problem Description

"The description of the problem has to include comprehensive information regarding the following points:

- theoretical principles
- assumptions and prerequisites
- graphical representation including dimensions
- material laws (constitutive equations) and characteristic values of materials
- boundary conditions and actions

The theoretical principles include a description of the mechanical model developed on the basis of the structural model into the numerical model, for example

- calculation with or without consideration of shear strains,
- calculation applying beam theory or FEM using shell elements, as well as
- calculation applying second-order theory or a more exact non-linear theory.

System diagrams shall show all dimensions. The boundary conditions and force transfer conditions at bearings and joints have to be marked with the customary symbols and explained, if necessary. All values shall be presented using the standardized symbols pursuant to DIN 1313, including their indices. Reference to standard limit states (action combinations, partial safety factors etc.) has to be evident. Furthermore, the numerical value and unit have to be stated."¹⁾

A2 Reference Solution

"If the reference solution is an analytical solution, the corresponding formula has to be stated; if it is an experimental result, the material property values and their measured mean values and standard deviations shall be given. For a numerical reference solution verified by at least three programs, the relation of the programs used to the individual results has to be clearly indicated. In this case the names, version numbers and suppliers of the programs have to be stated (...). Furthermore, the information given always has to include possible error tolerances. It can be useful to calculate results for one specific structure by applying various conditions or methods and comparing and discussing the results. Simple ways of checking results should be described, where necessary."^{*)}

For examples of class *B - Numerical Examples* and class *E - Holistic Examples* the reference solution results from the compilation of the results of the 3 editors.

A3 Results

A31 Results - Sample Company 2

Producer	Software Program	Version Number
Sample producer 1	Sample software 1	00.00.00
Input file: either file or link https://www.yourcompanywebsite.com/pathtofile (optional)		

"When presenting the results, emphasis has to be placed on presenting these in graphical form which is as self-explanatory as possible. Figures and tables within an example are to be numbered consecutively. The numbering used shall be limited to a reasonable number of digits."^{*)}

A32 Results - Sample Company 3

Producer	Software Program	Version Number
Sample producer 2	Sample software 2	00.00.00
Input file: either file or link https://www.yourcompanywebsite.com/pathtofile (optional)		

Here the second editor can upload his results.

A33 Results - Sample Company 4

Producer	Software Program	Version Number
Sample producer 3	Sample software 3	00.00.00
Input file: either file or link https://www.yourcompanywebsite.com/pathtofile (optional)		

Here the third editor can upload his results.

A34 Further Results

Producer	Software Program	Version Number	file
Sample producer 4	Sample software 4	00.00.00	xx.pdf
Sample producer 5	Sample software 5	00.00.00	xx.pdf
...

Here further results can be uploaded after qualification of the example. These have not gone through the qualification process and must be evaluated by the EvaDAT user himself.

A4 Assessment

"The assessment should explain the reasons for possible deviations, define tolerance limits for deviations and provide information on the software's application limits and the practical constructive implementation of calculation results.

Deviations can, for example, result from:

- the applied theory
- discretization
- boundary conditions
- material properties and material models^{*)}

The assessment is written jointly by all 3 editors.

A5 References

"Suitable references have to be stated to explain the theoretical background."^{*)}

(The references are created automatically. Corresponding entries are set via a citation function in the individual chapters.)

Editors

Name	Company, Institution	City, Country	Function
John Sample 1	Sample Company 1	Any City 1, Any Country 1	Creator
John Sample 2	Sample Company 2	Any City 2, Any Country 2	Editor
John Sample 3	Sample Company 3	Any City 3, Any Country 3	Editor
John Sample 4	Sample Company 4	Any City 4, Any Country 4	Editor

Note: If applicable, the creator and the first editor are one and the same person.

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