

## Construction and maintenance of S & MA basis “quality engineering tool”

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Subject Category: Common Business

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### ● **Responsible Representative**

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### ● **Members**

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### ● **Abstract**

Acquisition of optimal solutions in various designs by using quality engineering tool

### ● **Reasons for using JSS2**

Speed up simulation

### ● **Achievements of the Year**

Quality engineering was applied to the wooden building seismic design simulation (wallstat) owned by Kyoto University. As a result, a robust design solution that does not collapse against a huge earthquake was obtained.

### ● **Publications**

- Non peer-reviewed papers

Kado, Nakagawa, Evaluation Method for Seismic Design of Timber Structures by Using Quality Engineering and Supercomputer, Timber Engineering Forum No.22, 2018.12

- Invited Presentations

Kado, Improvement of robustness of design and information sharing by quality engineering tool, JSCES-HQC Study Group, 2019.3

- Usage of JSS2

- Computational Information

Process Parallelization Methods	N/A
Thread Parallelization Methods	N/A
Number of Processes	1
Elapsed Time per Case	10 Minute (s)

- Resources Used

Fraction of Usage in Total Resources\*1 (%): 0.13

Details

Computational Resources		
System Name	Amount of Core Time (core x hours)	Fraction of Usage*2 (%)
SORA-MA	0.00	0.00
SORA-PP	158,250.72	1.26
SORA-LM	0.00	0.00
SORA-TPP	0.00	0.00

File System Resources		
File System Name	Storage Assigned (GiB)	Fraction of Usage*2 (%)
/home	23.84	0.02
/data	49,066.57	0.87
/ltmp	4,882.81	0.42

Archiver Resources		
Archiver Name	Storage Used (TiB)	Fraction of Usage*2 (%)
J-SPACE	0.00	0.00

\*1: Fraction of Usage in Total Resources: Weighted average of three resource types (Computing, File System, and Archiver).

\*2: Fraction of Usage: Percentage of usage relative to each resource used in one year.