2020

A screenshot of a computer

Description automatically generated

IiA 25638 - Structural Data Platform

prototype report and documentation

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# Purpose of the Prototype

This prototype system serves as a proof-of-concept for a web-based structural data visualization and analysis tool. The concept of the system stems from SpeckleGSA, a plugin to import GSA structural models into the web-based model exchange platform Speckle. Two major objectives were defined as the scope of this project, namely *1) Comparing Structural Parameters from Speckle Streams,* and, *2) Visualizing Structural Model on a Web-Based Platform.* This prototype was designed to provide insight for the former and explore the technical feasibility of such a system. By incorporating Speckle-based tools and web applets developed by fellow Arup developers, we hope to compare structural parameters among different GSA models via the speckle streaming service.

To demonstrate this concept, a brief simulated system was developed to display the volume of 1-dimensional structural members by their elevation. It consists of a API-based ‘JSON extracter’ ,a python ‘data processor’ and a

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# Appendix