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SpaceChase for Grasshopper

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ABSTRACT

The development of new computational tools helps define the new methods in which spatial relations are elaborated in the form of network structures. This workshop presents the features of a new toolset developed as part of a scientific project (Dursun Çebi, et al., 2021). SpaceChase was developed for integrated usage with the Grasshopper visual programming language. The user-interactivity enabled by the Grasshopper interface had been utilized in Space Syntax before (Nourian et al., 2013). The feature that distinguishes SpaceChase from similar tools is its extensive usage of dynamic and interactive models in real-time design analysis and exploration. SpaceChase was previously presented and tested in the prototype form as a Grasshopper code (Kozikoğlu, et al., 2020). The dynamic behavior of SpaceChase is supported by the Kangaroo geometric optimization components of Grasshopper. The workshop has two parts.

The first part of the workshop aims to present and discuss the latest version of the toolset, which has evolved into a separate Grasshopper plugin. The development process of the tool involved different subject groups consisting of students, lecturers, and architects. Here, SpaceChase's development steps, its operation, the spatial information it reveals, challenges, targeted features, and potentials are explained and discussed. In the second part of the workshop, it is planned to work on a determined design problem with the participants. Participants are expected to use the SpaceChase plugin as a tool to think about the design process. At the end of this workshop, it is aimed to make a comprehensive evaluation/analysis of the software's performance and all its functions, as well as an analysis of users' perceptions and usage patterns. The analysis method will be based on three parts; models, target users, and base functions. It is suggested that this workshop will provide important experience/data in terms of both the development of the program itself and the diversification of space syntax toolsets and strengthening them with new features. This is a half-day workshop open for students, architects, and scholars.

KEYWORDS

SpaceSyntax, Interactive Dynamic Canvas, Grasshopper

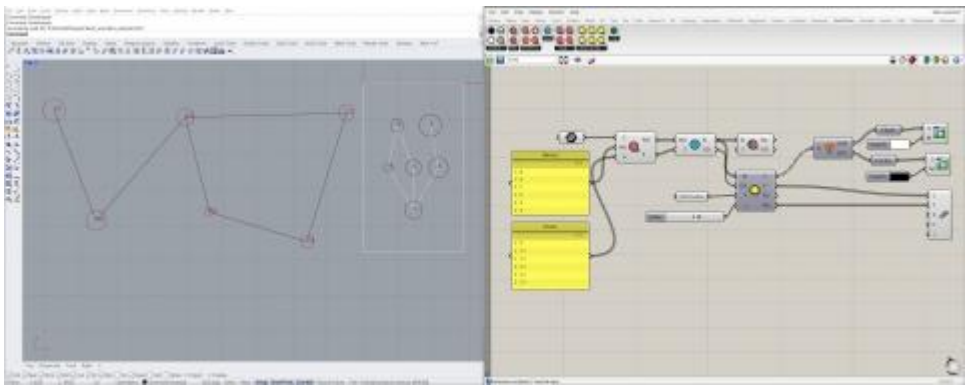

Figure 1: Interface of SpaceChase for Grasshopper

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