

Ökonflex: An IT-tool for configuring wooden house constructions

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Energy efficiency, sustainability and economic efficiency are factors clients expect in state-the-art housing quality. Optimizing these factors in the planning stage with respect to the use, the expectations and possibilities for the landlord often seems an impossible undertaking, because it's hardly possible to communicate up-to-date market information at an early stage in terms of interdependencies between requests and effects in the mentioned realms of ecology, energy, technology and housing quality. This so-called "Wooden House Configurator" integrates the various entry data interdependencies of the individual impact factors (ecology /economy /energy /technology /housing quality) and it aims to display them in a comprehensible manner for planners and clients alike. This IT-tool allows clients to test building details in terms of their impacts relating to ecology, energy balance, etc. The multiple possibilities provided by the configurator allow the client to perceive which measures contribute to an improvement or increase in building quality in the areas listed. Besides timber technological developments, the users of this configurator are also informed about optimized energetically and ecologically reasonable timber house building technique for the requested building type. The integration of sophisticated building technique elements (e.g. solar and photovoltaic technology, passive house technology, ventilation systems, energy generation system, energy storage system, etc.) provides a huge optimizing potential in timber construction. The "Wooden House Configurator" offers users/clients the possibilities to configure a wooden house without technical expert knowledge in terms of size, aspect, ecology, economy and energy efficiency. For construction companies the configurator facilitates client contact and offers information about their requests. This IT-tool also serves as an interface for timber construction companies to other building professionals and companies to optimize cooperation, standardize procedures to increase added value and competitiveness. Apart from the advantages of the configurator mentioned, upon building completion the entire data set (building structures, energy certificate, etc.) is accessible and available for the planner and client alike as a "building certificate".

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