



# SIMULATION TOOL FOR ARCHITECTS

## OPTIMIZATION OF ACTIVE AND PASSIVE SOLAR USE



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The presented work offers an improved planning tool as a response to the demand for active and passive solar architecture. The software *Lesosai* internally calls the *Polysun* simulation kernel and therefore provides a one-tool combination of the building energy model and an accurate energy simulation in new buildings design and retrofit. *Lesosai Polysun Inside* empowers **architects to consider solar systems in an early planning stage**, based on automatic performance calculation of the solar system through *Polysun*. The *Polysun* simulation kernel is working invisibly behind the *Lesosai* interface. Consequently, the architects do not have to install and learn to handle additional software next to *Lesosai*. Furthermore, no data has to be entered twice and the consistency of all simulation results is guaranteed by the software package.

### NEW LESOSAI INTERFACE

WITH

### SPECIFIC ARCHITECT ORIENTED OPTIONS

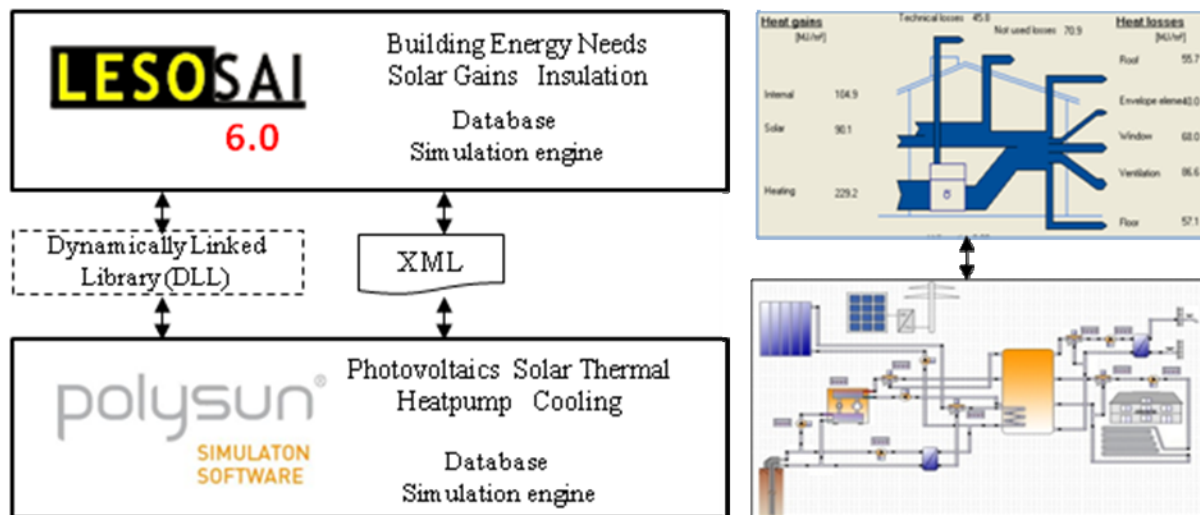


Figure : Linking concept between LESOSAI and POLYSUN

Polysun is shipped with a large number of system templates and calculates all relevant system parameters related to heating and electricity production. It also comprises the calculations for amortization and the data required for subsidy applications. The target users of the stand-alone version of Polysun are the installers and planners. The approach presented here is generally applicable and has already been implemented with several partners including Gascad (Austrian company with tool *plan4[solar]*) and Data Design Systems (Norwegian/German company with tool *DDS-CAD*).

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