

E.J. JIN, J.H. GARRETT, B. AKINCI. Code compliance checking by using derived objects. Gerontechnology 2012;11(2):327; doi:10.4017/gt.2012.11.02.476.00 **Purpose** Building design should comply with the regulations of the building codes that the state designates. The Industry Foundation Classes (IFC) is generally used as the building information model (BIM) in checking whether the building design complies with building codes or not. The building information required in code compliance checking may not be contained by the basic object data provided in IFC-data, but it sometimes can be derived from IFC-data. The objectives of this research are to test how to use the derived object in code compliance checking, and then to identify challenges in generalizing this process. **Method** From the examples of building codes requiring the derived objects, this research develops the prototype of code compliance checking by using the derived data from IFC. By applying this prototype to a variety of building codes requiring the derived objects, the challenges are identified. **Results & Discussion** The process of prototype is built according to the graph below. By applying this prototype to a variety of building codes, the variety of derived object types and the dependency of code compliance checking process on the derived object types were identified as the challenges to generalize this process.

Keywords: information technology, building code, compliance checking, derived object, BIM
Affiliation: Carnegie Mellon University, Pittsburgh, PA, USA; *E:* euijaejin@cmu.edu
Full paper: No

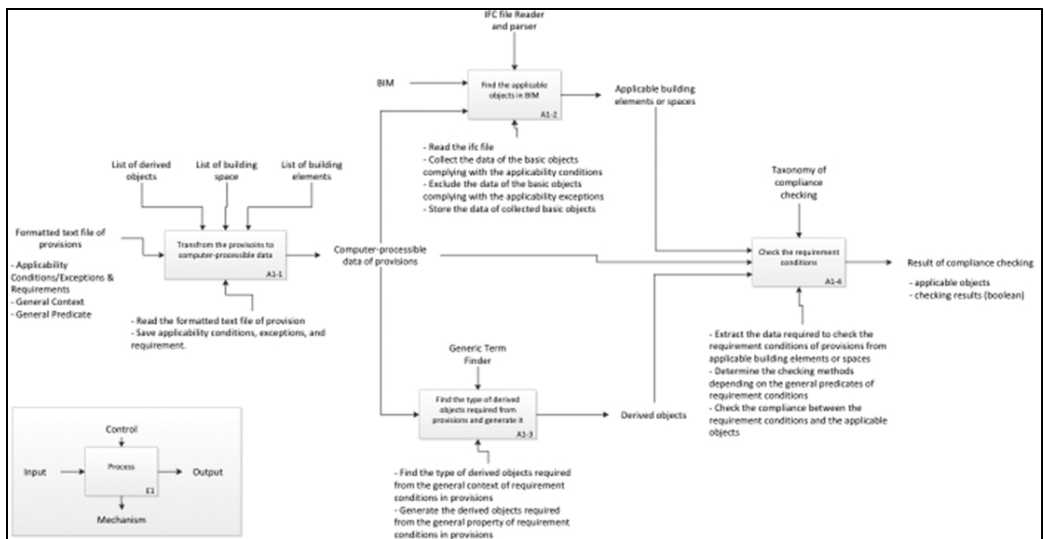


Figure 1. The process of prototype for code compliance checking by using the derived data from IFC