

FORUM8

Design Festival

WORLD16 Research Group

**ARCHITECTURES OF
TOWN
BIM - IFC: THE NEW WAYS FOR
THE
INTERACTIVE DESIGN**

Paolo Fiamma

School of Engineering University of Pisa Italy





The Building Information Modelling B.I.M. Philosophy

The meaning of digital models changes from that of a virtual plastic to the more scientific one of an operating scheme, also theoretical. The implementation of structural models can even go so far as to guide the designing practice itself. Regarding professional practice, it offers the advantage the on-going process of a project in independent steps, allowing the recovery of its meaning as an expression of a single and simultaneous concept of all the aspects involved. In fact to make the most of the possibility to develop an integrated virtual model, the design concept needs to be integrated since an early stage. I think that is possible to make a prevision regarding the supply of structural products for design. Like a puzzle is composed of different pieces, an organism is made of cells , a system is made of subsystems, in this manner the virtual model of a building will always be constructed with 3D elements provided by the Production Companies.



The IFC Philosophy

In the future the level of the complexity of the design will be increased according the develop of the specializations of the actors and the phases of the design-production process. How will be possible to manage this complexity without using a interaction between different languages of the digital resources?

The Industries Foundation Classes are the most important standard for exchanging data between different software.

There aren't many software worldwide able to use the IFC standard in the field of Civil Engineering and Architecture, therefore to offer this possibility of interaction means open new horizons for the develop of the design of tomorrow.



The case of study

A new building will be located on a central square of the Town: Urbanism and Architecture will be deeply linked. How improve the design facilities? How to have more chances for realize a better environment?

The case of study is focused to explore new way of design using different digital tools “as one” like UcWin Road and Allplan.

We can obtain an added value if we understand how the actors of the entire process-product can develop a new collaborative approach.

The core of this presentation is to highlight the common parametric “nature” of both software that can be used in a holistic manner for different focuses: to use a scientific visualization for the plan of the building field; the impact of the construction on the perception of the environment by the people; the forms of interaction between the traffic flows and the building construction; the contribute for reduce times and costs of the new building.







