

TYPE

Building company

CUSTOMER

Irlandini Costruzioni srl

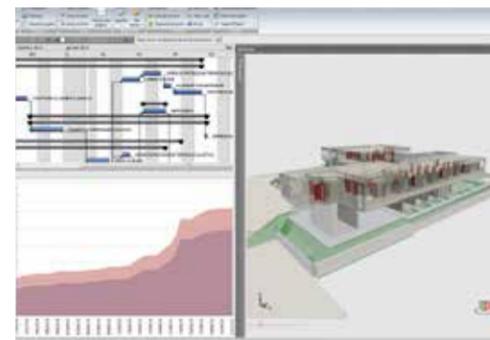
INTERVIEWEE

Armando Casella - Architect

SOFTWARE

STR Vision CPM

STR Vision BIM



SPECIAL BIM

INTRODUCTION

Any building company faces problems not easy to solve: economic needs, work schedules, difficult position where the building site is opened... When all these circumstances occur at the same time, problems increase more and more. The BIM method is an extremely efficient approach to reach the highest performance level even when conditions are so unfavourable. An example? The company Irlandini Costruzioni srl, which promoted the use of BIM in restructuring and enlarging a hotel near Verona. Let's see how BIM impacted on this operation with the staff who worked together with Mr. Michele Irlandini, Architect and Project Manager of Irlandini Costruzioni srl.

Irlandini

BIM improves the company

What requirements made Irlandini company adopt the BIM approach?

The choice was made on the basis of the specific aspects of this project. The hotel owner had decided to make a remarkable investment both to restructure and enlarge the building. The project and the company were chosen on the basis of a concept proposed by Mr. Michele Irlandini. There were two crucial points to be taken into account: first of all there was a fixed budget (established on the basis of the concept) and times were extremely strict. The customer wanted the works to start after the Summer season and to finish by the end of April / beginning of May, with no exceptions. This meant just seven months and the contract provided for penalties in case of delay. In addition the restructuring works on the ground floor had to be so organized as to allow the restaurant to work even in Winter. Just a short closing period (15 days) was allowed in January.

How did the BIM approach help the company?

The company asked us for project engineering and management. We'd never used BIM before, but we had collected information and we understood that it could offer enormous benefits. Since the first meetings, when we described the potentialities of the available tools and the workflow, we realised that we had chosen the right way.

The procedure was backwards: due to the number of requirements of this contract we had to help the company fulfil them in the best way. First of all we analysed the model supplied by Mr. Irlandini with LOD (Level Of Detail) 200, brought it to LOD 300 and synchronized it on the basis of the execution times.

Then we carried out non-detailed scenario simulations to see if macro works could be carried out in seven months, as required. After checking the feasibility of the project, both in terms of times and macro costs, we started with the actual development project.

Later we brought the project to LOD 350 and to LOD 400 for the building site drawings. As planned, the building site was opened in mid-October with remarkable advantages: for example, 3D simulations were indispensable when organising a building site layout that didn't interfere with the restaurant and its customers' safety.

And what were the advantages during the construction?

The BIM method enabled us to achieve a high quality level under unfavourable conditions: the restaurant in activity on one side, the presence of two different building sites on the other, that is one for the restructuring works (about 500 sq.mt.) and the other one for the enlargement (about 700 sq. mt.). We have supported the company by means of tools enabling it to use the geo-referenced model directly on the building site, to better understand which works had to be carried out. This aspect was very appreciated by our customers and we were very satisfied with it. We cannot state that technology has replaced traditional tables (still asked for by all companies), but no doubt we have introduced an instrument that helps professionals read and interpret traditional drawings. Especially in case of complicated projects, it's very important to supply this kind of support and make it promptly available. For example, we make use of viewers that are easily and quickly at the professional's disposal.

What kind of training does the user need?

No special training. Some knowledge, instead. It isn't generally known that there are intuitive instruments capable of offering so big advantages! The models can be approached easily. Changes need a separate consideration, but the display and query functions are really user-friendly. You just need an iPad or a portable PC! There are a lot of easy-to-use viewers to navigate these models and they're often free of charge!

Would you recommend the BIM approach even for lower-value projects?

The experience made with this hotel shows that BIM is the ideal instrument for any work. The project was just over one million Euros, a much lower value than our usual projects. But even in this case, as I've just explained, there were very remarkable advantages. BIM also represents a quality improvement from the designing point of view. Companies usually supply us with 2D drawings and ask for 3D projects. With Mr. Michele Irlandini this step was totally omitted: he gave us a model and we started working on it, that is from an upper level (even as for attitude). In this way we could comply with times and costs and achieve a high quality result, which is of top importance.

What's STR role in this process?

In the BIM processes we use STR software to process 4D (times) and 5D (costs) steps. Our choice is based not only on STR experience in the software for building and design companies, but especially on the IFC engine inside the software: this offers maximum interoperability and perfectly matches the OpenBIM philosophy that we adopted since the beginning. At present STR Vision CPM is the best software on the Italian market to integrate 4D and 5D within a BIM process. We've tested it both with small and bigger models and we are very happy.



INFO

Irlandini Costruzioni s.r.l.
37011 Bardolino (VR)