DATA DESIGN SYSTEM*

DDS-CAD User Case

INPrediais demonstrates added value of BIM in Brazil

INPrediais, a DDS-CAD user since DDS started its activities in Brazil, has successfully demonstrated the added value of BIM to the Brazilian construction industry. The company was involved in a project that was aimed at assisting the organization and planning of MEP systems of a hospital expansion covering more than 5.000 m2 in Sao Paulo, Brazil. "The challenge was to improve productivity and prevent construction delays as much as possible by visualizing conflicts between the systems (HVAC, medical gases, hot water, drinking water, electricity and telecommunication)", as said by Humberto Farina, CEO of INPrediais.

INPrediais started this project by analyzing the traditional 2D plans that were produced by other engineering offices and converted all the documentation to a BIM using DDS-CAD, putting all systems together in a single model. At an early stage it became apparent that it would be difficult to organize all the systems in the limited space that was available. As a result, the contractor decided to adjust the ceiling height with an additional 0,30 meter and forced the complete project team to review their old designs.

At this stage INPrediais is assisting the client in order to assure that they will be receiving the quality as expected. Furthermore, the intention is to have INPrediais train the people on-site, making them use the model for decision making in advance of actual construction activities.

Throughout the project INPrediais used IFC to exchange models between the Architecture and Structure disciplines. This resulted in fully coordinated models with an optimized design and a minimal number of issues.



A detailed view of the extract and supply air system, closely passing over and underneath each other.

Source: Data Design System GmbH



All systems ranging from ventilation ducts, pipes, bus bars and electrical conduits have been coordinated using DDS-CAD's internal clash control and externally between AEC disciplines using Tekla BIMSight.

Source: Data Design System GmbH



Characters: 1.639 (excluding title)



One of the new wings of the hospital's expansion showcasing all systems precisely modeled within limited space.

Source: Data Design System GmbH