



Dear Readers,

Greetings for the season. With our ever endeavor to provide quality services we have taken effort to bring up articles which will help construction industry for migration from two dimensional drawings to BIM.

The migration article series are a compilation of articles on the topic given by various experts world over. We have taken effort to bring the excerpts from these articles as a tool for the industry need.



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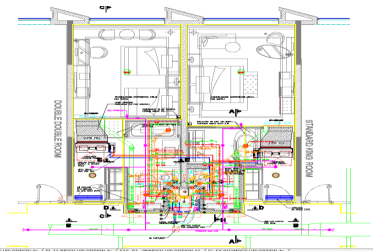
## ★ The Buzz

### Draw it Once

In a traditional CAD design environment, it is often the case during the schematic design phase of the project that a temporary 3D model is built using one software program (like Sketch-up or Rhino). Once schematic design (SD) is over, it is typical that this same 3D model is discarded as the project moves into 2D CAD production using a different software product (like AutoCAD). If the 3D model remains, it will sometimes be updated in tandem with the 2D CAD files but this additional work is not automatic. Changes in the 2D CAD files do not update in the 3D model because the users are using two different software programs. When the CD (Construction Drawing) phase begins, the 3D model often is out-of-date with the CAD files and is no longer an integral part of the production phase. Once the CD's are done and the project moves into Construction Administration, it is often that the contractors will build their own 3D model for costing and clash detection. A true BIM model is built once during the early schematic design, is refined in design development (DD), and is used for the CD set. Firms can also use the same model to be passed along to the contractor for their costing and clash detection. Once again, the design process of our industry is being streamlined by BIM. Today every other construction house is demanding that BIM be used for preconstruction, during construction and for post construction facilities management.



## On Going Projects at Excelize



Excelize has worked for a hotel project located at Mumbai, we have created a virtual mockup for a hotel suite. We have not only modeled architectural & services components, but have also detailed interior components for this room. For this project dry walls are being used in the suites. We have modeled these to coordinate with the interiors. As an example – there are wood panels of different sizes at the bed wall. We have used this model to coordinate the panels with the studs of the dry walls, so that there are no execution challenges.

Besides using this model to assist in clash detection & coordination of services in the suite, we are also using it to generate BOQ & BOM for the interior components. For example – we are generating quantity of the flooring, wall paneling, ceiling light fixtures, upholstery etc.

The interior cabinetry has also been detailed to extract quantities of plywood, laminate & hardware. This allows us to get estimates of furniture materials. Using this data the client wanted to build everything offsite and then install at site. This enables faster construction. It also reduces the cost of interior fit outs for the suites due to standardization.



## The Technology for you

### BIM Implementation (Article Series) Article 2 BIM's Database v/s 2D CAD

To help clarify the differences between BIM and traditional 2D computer aided design (CAD), let's compare a series of MS Word documents and an Access database. Two word documents by nature are not connected in any way and require a user to manually create a connection between them.

However, two reports from an Access database allow the user to view the same data in two different ways. If the user changes the data, both reports update. Traditional 2D CAD works much like the Word document: a plan file does not inherently connect with an elevation or section file since these are separate files. A true BIM is a database where the data is the project model and the reports of the database are the queries (or views) of that model. Hence all plan views, section views, elevations, callouts, perspectives, even schedules are live within a single project model. A BIM allows users to make a change in one view and have that change update in all other views across the entire project.

A true BIM should also allow a user to import and export to traditional 2D CAD. The "Puresst" wants to keep the entire project as a separate BIM. However, for most offices transitioning to BIM, the reality of their first few BIM projects will include importing 2D CAD files thus creating hybrids of both BIM and 2D CAD. Again, this is typical during the transition to BIM and should be considered a success for the first project. Eventually, all the users will be Building Information Modelers but until then, traditional 2D CAD will be part of our design process.



## Upcoming Events

**How will the recent global uncertainties affect the Indian real estate market and the rest of the Asian market?** Programs by : Harvard Business School  
<http://www.exed.hbs.edu/category/Pages/realestate.aspx>

**Excelize will be visiting this season:**

**Nirman Gujrat** : 23-25 September 2011 [www.nirman.biz](http://www.nirman.biz)

**FICCI International Real Estate Summit 2011**: 22 & 23 September 2011,



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