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BIM conversion process is an important step for any design firm. CAD to BIM simply means paper based drawings or Computer Aided Design are converted into BIM smart models. It sounds a simpler process to carry out for CAD to BIM conversion but it is not necessarily easy. BIM actually means Building Information Modeling which produces 3D ,4D or 5D Building Information Models with high level dealing and complexities using software™s like Revit, ArchiCAD etc. These models can be further utilized to get estimation of materials or construction purposes. How can these drawings be converted? Second question - why should this be converted? Let™s talk a bit on that.

As we all know, Building Information Modeling has been in the CAD Industry since a decade. Prior to BIM, CAD Drafting was widely used to create drawings, plans and Construction Drawings. Now a lot of builders are going towards re construction of buildings according to updated standards and technology like Green Building, Energy Analysis etc. So it is vital to have the CAD Plans convert to Models for further utilization. This gave birth to CAD to BIM Conversion.

HOW TO CONVERT CAD TO BIM:

The best software which is mostly chosen for conversion is Revit. This software provides most accurate 3D modeling with high quality construction documentation which makes task smooth for engineers, contractors, modelers and many other persons involved in project. Thus for conversion basic input we require are 2d CAD design files or drawing files. To further continue with conversion we require PC with moderate configuration having Revit software installed. The final output will be in the form of 3D model along with brief documentation.

Following Steps must be effectively followed for CAD to BIM conversion:

1. The very first step is to open Revit software and import CAD based drawing files drafted in AutoCAD into Revit. The very important thing to be kept in mind while importing is that 2D drawing files must be imported by elevation level in Revit.
2. For importing one must go in menu option then further click insert drawing file. Then after by giving path of location of CAD drawing, it will successfully import the 2D cad drawings into Revit.
3. The next step after importing is to draw building components like walls, doors, windows, roofs etc. over imported 2D cad drawing.
4. We can easily find the building components which are already present in Revit families by default. One can also create customized families in Revit as per client™s specifications.

In this way 3D BIM model can be easily created from 2D cad drawings.

COMPARING CAD BASED 2D DRAWINGS WITH 3D BIM SMART MODELS:

1. A BIM model provides high level of construction documents which are very useful at the time of construction for contractors and structural engineers at site. CAD based designing does not provide such kind of documents.
2. For 3D BIM models created in Revit, number of users can work in a single file. In auto cad only single user can access and work at a time.

3. Revit provides facility of storing all project data in a single file. In AutoCAD there can be multiple files for a single project.

Thus BIM can be considered as smart and intellectual process for moving towards construction faster.

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