



MODELLING AND LAYOUT OF INDEPENDENT HOUSE USING AUTOCAD 3Ds MAX

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Abstract – This project involves creating a comprehensive 3D model and layout design for an independent house using Autodesk 3Ds software. The primary objective is to provide a visually stunning and functional living space that meets the client's requirements. This project aims to design and model an independent house using AutoCAD and 3Ds Max software. The project involves creating detailed architectural plans, including floor plans, elevations, and sections, using AutoCAD. These plans will then be imported into 3ds Max to create a 3D visualization of the house. The project will focus on optimizing the layout for functionality and aesthetics, while also considering structural integrity and material efficiency. The final deliverable will include a comprehensive set of architectural drawings and a 3D model, showcasing the design and layout of the house.

Key Words: AutoCAD, 3ds max, Architectural Design, 3D Modelling, Floor Plan, Elevations, Visualization, Renderings, CAD Software, residential Layout, Interior design, Exterior design

1. INTRODUCTION

Autodesk 3ds Max, 3D Max, is a professional 3D computer graphics program for making 3D models, and images. It is developed and produced by Autodesk Media and Entertainment. It has modelling capabilities and a flexible plugin architecture and must be used on the Microsoft Windows platform. It is frequently used by studios, and architectural visualization studios. It is also used for movie effects and movie pre-visualization. 3ds Max features shaders (such as ambient occlusion and subsurface scattering), dynamic simulation, particle systems, radiosity, normal map creation and rendering, global illumination, a customizable user interface, and its own scripting language.

1.1 3ds Max Interface Overview

The 3ds Max interface comprises controls, status information, and viewports, where you work and view

Your Scene. One of the most important aspects of using 3ds Max is its versatility. Many program functions are available from multiple interface elements. For example, you can open track view for animation control from the main toolbar as well as the Graph Editors menu, but the easiest way to get to a specific object's track in track view is to right-click the object and then choose track view selected from the quad menu. You can customize the user interface in a variety of ways: by adding keyboard shortcuts, moving toolbars and command panels around, creating new toolbars and buttons, and even recording scripts into toolbar buttons.

1.2 Creating Objects

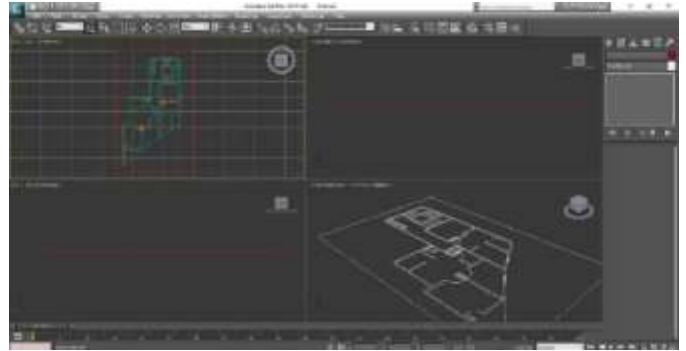
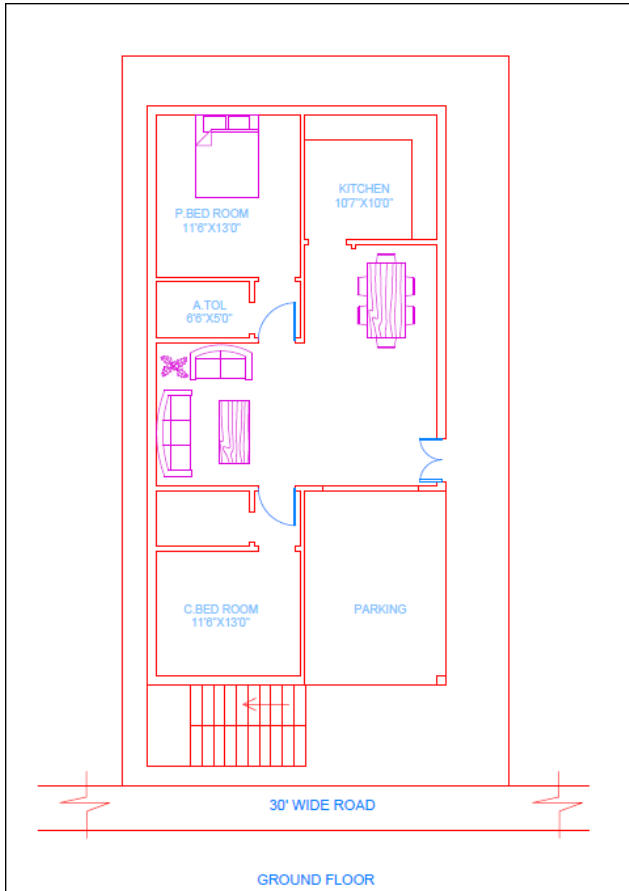
You create objects by clicking an object category and type on the create panel and then clicking or dragging in a viewport to define the object's creation parameters. 3ds Max organizes the create panel into these basic categories: geometry, shapes, lights, cameras, helpers, space warps, and systems. Each category contains multiple subcategories from which you can choose.

2. Create Panel

The create panel provides the controls for creating objects. This is the first step in building a new scene in 3ds Max. Most likely, you will continue to add objects throughout an entire project. For example, when it is time to render a scene you might need to add more lights.

2.21 Modify Panel

From the create panel of 3ds Max, you place basic objects in your scene, including 3D geometry, 2D shapes, lights and cameras, space warps, and helpers. Each object you add has its own set of creation parameters, which define its geometry and other characteristics, depending on the type of object. Once placed in a scene, objects carry their creation parameters with them. You can change these parameters on the modify panel.



3. CONCLUSION

This project effectively utilizes 3ds Max software to create a detailed and realistic 3D model of an independent house, showcasing proficiency in architectural modeling and design. This study demonstrates the capabilities of 3ds Max in architectural visualization, highlighting its potential for enhancing design communication and decision-making. This project showcases expertise in navigating 3ds Max's user interface, leveraging its features to produce a polished and professional architectural visualization. The successful integration of architectural and interior design elements has resulted in a stunning visual representation of a dream home. This project demonstrates expertise in 3ds Max modeling, texturing, and lighting, highlighting the potential for immersive and realistic architectural visualizations.



2.22 Hierarchy Panel

The Hierarchy Panel Provides Access to Tools to Adjust the Hierarchical Linkage Between Objects. By Linking One Object to Another, You Create a Parent-Child Relationship. Transformations Applied to The Parent Are Also Transmitted to The Child. By Linking More Objects to Both Parent and Child Objects You Can Create Complex Hierarchies.

2.23 Motion Panel

The Motion Panel Provides Tools to Adjust the Motion of The Selected Object. Key Timing and Easing in And Out of a Key Are Parameters That You Can Adjust with Tools on The Motion Panel, For Example. The Motion Panel Also Provides an Alternative to Track View for Assigning Animation Controllers.

2.24 Display Panel

The Display Panel Provides Access to Tools That Control the Display of Objects in The Scene.