GAME MODDING AND TES: NEW WAY TO DESIGN VIRTUAL WORLDS

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Introduction:

Computer games are not a new phenomenon but the concept of a game is difficult to describe. A dictionary defines a "game" as 'a contest with rules to determine a winner'[1] and the term 'computer game', is used to cover all types of digital games. There are various computer systems, which provide digital games, such as PC, Playstation, Xbox, Mac, GameBoy, and the like. A computer system has three roles in a game[2]. It coordinates the game process, illustrates the situation and participates as a player.

Computer games are classified according to their genres. There are five basic genres taken into account: action games, adventure games, role playing games (RPG's), simulation games and strategy games. All genres aim to provide the user an interactive experience coupled with the freedom to think and act. Two important criteria referring to the freedom of the player in the virtual world are interactivity and openness. Interactivity refers to the frequency of the player's interactions with this world and openness refers to the range of different interactions offered by the game[3].

Supported by the story, settings and combat systems of tabletop role-playing games, RPG's provide interesting interactivity and openness opportunities to players. One of the most distinctive attribute of role playing games is the character creation process. This process offers the player the chance to play a customized character in an interactive virtual world. The player selects his race, gender, age, class and defines his attributes and skills. The attributes often refer to the physical and mental properties of humankind such as strength, intelligence, charisma, dexterity, constitution and wisdom. The skills are necessary for realistic interactions with the virtual world. Some of these skills are thieving, bargaining, persuasion, swordmastery and etc. The player explores the virtual world, goes on quests, fights enemies, buys and sells equipment, and develops his skills and attributes.

Most games now come with toolsets or construction sets, which allow users to create new gaming environments that may be added to the original game and shared amongst gamers. These custom modifications, or mods, customize the gaming environment in different ways. Mods increase the lifespan of a game title and marketing of some games relies heavily on gamer created content[4]. These tools are either included with each copy of the game or downloadable from the developer's website. There is an increasing popularity of mod-creation tools in the RPG genre[5], indicating the importance of fan participation in videogame production. Games such as The Elder Scrolls III Morrowind[6] and Neverwinter Nights[7] provide mod creation software to their players. An interesting toolset is the TES Construction Set provided with the role playing game, Morrowind. There are thousands of mods created by the fans of the game, which can be downloaded from the Internet.

According to Aarseth[8], there are three ways to acquire knowledge about any game. Firstly, the researcher can get information from the designers of the game. Secondly, the researcher can observe others while they play the game. And finally, the researcher can play the game himself. The best way to acquire information about a game is to experience the game personally. I have played and finished the games, Neverwinter Nights and Morrowind. Both games offer a mod creation tool. I have used these tools to create my own virtual worlds. I have played and tested many user created mods created by the fans of these games. From my point of view I think, the mod creation tool of Morrowind, TES, offers a more professional and user-friendly way to create a virtual world by yourself.

Bethesda Softworks released Morrowind in 2002. The game provides players more freedom than most other RPGs on the market today[9]. Aarseth describes Morrowind as an impressive and interactive RPG that has a non-linear storyline. Using the character creation screen in the game, players can create 480 billion different characters. The game is set in a mysterious fantasy empire and impresses the players with its massive virtual world and the variety of wildlife, vegetation, people and architectural styles. There are 3,244 NPC's in the world and these virtual characters interactively communicate with the players providing information about various things. There are ruling houses, various merchants, guilds and secret cults in the empire. Besides the main plot, there are hundreds of sub-plots and hundreds of places to explore within the virtual world. Every single object in the game, even the spoons and candelabras are 3D modeled. There are 316,042 3D modeled objects in the world. The players can interact with these objects freely. Even the volumes in the shelves of booksellers are designed with delicate detail. Every book includes a short story about a hero, guild or legend.


Picture 1: Screenshots from Morrowind

TES Construction Set that comes with Morrowind, allows players to build their own virtual worlds. TES comes with its own scripting language but TES Script is not a SDK that lets you actually work with and change the games source code. You can use the 3D models and textures (almost 6000 models and 4000 textures) included in the package or you can design your own models with popular software tools like 3D Studio Max. To export 3D artwork from 3D Studio Max into the TES Construction Set, Bethesda provides an exporter tool for the construction set. By using the TES, players can work with every facet of the Morrowind universe from dungeons, towns, landscapes, dialogue, weapons, characters, races, magic and much more. Mod creators can even alter the standard behavior of a NPC by writing scripts or simplified code commands to alter the Artificial Intelligence of the non-player characters. The system is built on plug-in technology, where all changes to the game's world are saved as separate files, which can then be incorporated into individual sessions.

There are various object types in the construction set. Activators are made up of objects that the user can interact by clicking. Apparatus includes objects related with alchemy and alchemical tools. Armor and Weapons, as their name implies, gives the user the complete list of all the armors and weapons used in the game. The models used for the bodies of people in the game are stored in Body Parts . Books include all the books and scrolls, Clothing includes various clothing used in the game. There are various types of doors under the Door objects and Containers include chests, barrels and other objects that can contain other objects. Various fauna and flora that can either be eaten raw or used in alchemical processes are in the Ingredients. Users can determine the lighting of the virtual world by using Light objects. Virtual characters of the game are included in the NPC objects and the monsters of the game are stored in Creatures. Static objects include the building blocks of the world. Walls, houses and furniture can be found under this title.

Construction sets or game mod creation tools provide an easy to use and flexible way to design virtual worlds. By using various objects presented in these
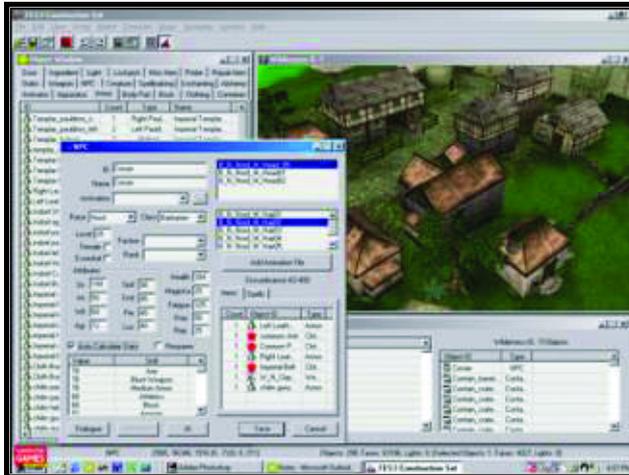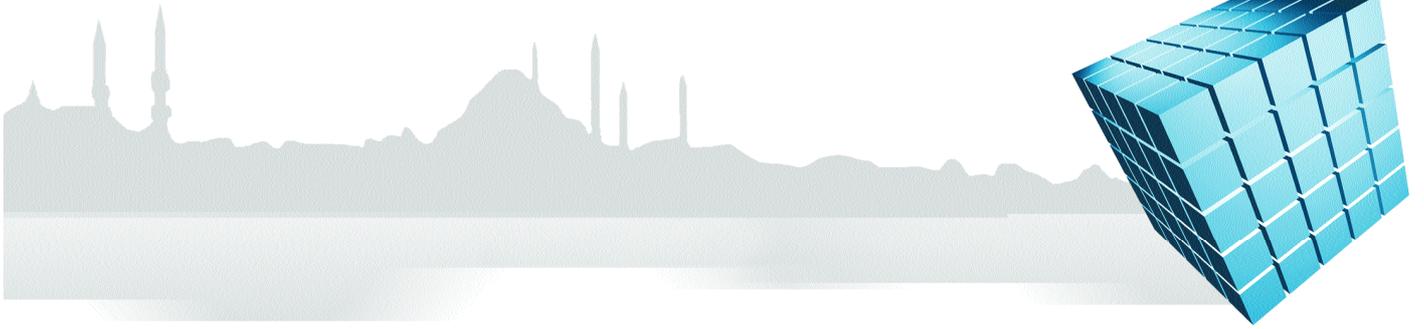
Picture 2: Screenshot from TES Construction Set

packages, different virtual environments can be built. Strengthened by the scripting capabilities of these tools, interactive simulations can be run. This may present many opportunities for the researchers. Everyone can design and implement 3D solutions without the need to design textures and models by using complex software tools such as 3D Studio Max. Since the created mods shall run on the game engine, the simulations will be smooth and realistic. The main drawback of creating mods is that, they actually work as plug-ins rather than stand-alone applications. Among these tools, TES is a professional world building tool that meets the designers every need. This tool can be used to create interactive virtual solutions for future 3D applications.

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