Atlas 3x3 map

A texture map is a two-dimensional image file that can be applied to the surface of a 3D model to add color, texture or other surface details, such as gloss, reflection or transparency. Texture maps are developed to directly match the UV coordinates of an unwrapped 3D model and are either designed from real-life photos or hand-painted in a graphic application such as Photoshop or Corel Painter. Texture maps are usually painted directly at the top of the UV aspect of the model, which can be exported as a square bitmap image from any 3D software package. Texture artists usually work in layered files with UV coordinates on a semi-transparent layer that the artist will use as a guide to where certain details are placed. After the name suggests, the most obvious use for a texture map is the addition of color or texture to the surface of a pattern. This could be as simple as applying a wood grain texture to a table surface, or as complex as a color map for an entire game character (including armor and accessories). However, the term texture map, so it is often used is a bit of a wrong name - surface maps play a huge role in computer graphics beyond just color and texture. In a production setting, the color map of a character or environment is usually just one of three maps that will be used for almost every 3D model. The other two types of essential maps are speculating maps and cuckoo/movement, or normal maps. Speculating maps (also known as glossy maps). A speculary map tells the software which parts of a model should be shiny or glossy, as well as the extent of glossiness. Speculating maps are named after the fact that shiny surfaces, such as metals, ceramics and some plastics exhibit a strong specular highlight (a direct reflection from a strong light source). If you're not sure about speculary highlights, look for white reflection on the edge of the coffee mug. Another common example of specolour reflection is the small white glimmer in one's eye, just above the pupil. A speculation map is usually a grayscale image and is absolutely essential for surfaces that are not uniformly glossy. An armored vehicle, for example, requires a speculary map for scratches, dents and imperfections in armor to come over convincingly. Similarly, a multi-material game character would need a speculary map to convey different levels of gloss between the character's skin, metal belt buckle, and clothing material. A little more complex than any of the two previous examples, bump maps are a type of texture map that can help give a more realistic indication of bumps depressions on the surface of a model. Consider a brick wall: An image of a brick wall could be mapped to a flat polygonal plane and called finished, but chances are not to look very convincing in a final rendering. This is because a flat plane does not react to light just like a brick wall would, with its cracks and coarseness. To increase the impression of realism, a normal cuckoo or map Be added to recreate more precisely coarse, grainy surface of bricks, and enhance the illusion that the cracks between the bricks are actually shrinking in space. Of course, it would be possible to achieve the same effect by modeling each hand brick, but a normal map mapped is much more computationally efficient. It's impossible to exaggerate the importance of normal mapping in the modern gaming industry - games just couldn't look like this today without normal maps. Bump, displacement, and normal maps are a discussion in their right and are absolutely essential for achieving photo-realism in a rendering. Keep an eye out for an article that covers them in depth. Apart from these three types of maps, there are one or two others you will see relatively often: Reflection Map: Tell the software that portions of the 3D model should be reflective. If the entire surface of a model is reflective or if the level of reflection is uniform, a reflection map is usually oised. Reflection maps are grayscale images, with black indicating 0% reflection and pure white indicating a 100% reflective surface. Transparency map: Just like a reflection map, except that it says the software that portions of the model should be transparent. A common use for a transparency map would be a surface that would otherwise be very difficult, or too expensive calculation to duplicate, would be a chain-link fence. Using transparency, instead of shaping links individually, can be quite compelling as long as the model is not too close to the foreground and uses far fewer polygons. Topographic maps (often called topo maps in short) are large-scale maps, often larger than 1:50,000, which means that an inch of the map is equal to 50,000 centimeters on the ground. Topographic maps show a wide range of human and physical characteristics of the Earth. They are very detailed and are often produced on large sheets of paper. At the end of the 17th century, French Finance Minister Jean-Baptiste Colbert hired an inspector, astronomer and physician Jean-Dominique Cassini for an ambitious project, the topographic mapping of France. Author John Noble Wilford says: He [Colbert] wanted some kind of maps that indicated man-made and natural characteristics so are determined by precise engineering studies and measurements. They would describe the shapes and altitudes of mountains, valleys and plains; the network of streams and rivers; the location of cities, roads, political boundaries and other works of man. After a century of work by Cassini, his son, nephew and great-grandson, France was the proud owner of a complete set of topographic maps. It was the first country to produce such an award. Since the 1600s, topographic mapping has become an integral part of a country's mapping. These remain among the most valuable maps for the government and the public alike. In the United States, the U.S. Geological Survey (USGS) is responsible for topographic mapping. There are over 54,000 quadrupeds. quadrupeds. sheets) covering every inch of the United States. The usGS's main scale for mapping topographic maps is 1:24,000, which means that an inch on the map is equal to 24,000 centimeters on earth, the equivalent of 2,000 feet. These patrols are called 7.5 minute quadrangles because they show an area that is 7.5 minutes wide longitude of 7.5 minutes of high latitude. These sheets of paper are about 29 cm high and 22 cm wide. Topographic maps use a wide variety of symbols to represent human and physical characteristics. Among the most striking are topo maps display ing of topography or terrain in the area. Outline lines are used to represent altitude by connecting equal elevation points. These imaginary lines do a good job of representing the land. As with all isolines, when the contour lines are close to each other, they represent a steep slope; far apart lines represent a gradual slope. Each quadrangle uses a suitable outline range (elevation distance between contour lines) for that range. While flat areas can be mapped with a contour interval of five feet, the rugged terrain can have a contour range of 25 feet or more. By using contour lines, an experienced topographic map reader can easily view the direction of the flow and the shape of the terrain. Most topographic maps are produced on a large enough scale to show individual buildings and all streets in cities. In urbanized areas, important larger and specific buildings are represented in black, and the urbanized area around them is represented with red shading. Some topographic maps also include features in purple. These quadrupeds were reviewed only by aerial photographs and not by typical field verification that is involved in the production of a topographic map. These revisions are presented in purple on the map and can represent newly urbanized areas, new roads and even new lakes. Topographic maps also use standardised cartographic conventions to represent additional features, such as blue for water and green for forests. Several different coordinate systems are displayed on topographic maps. In addition to latitude and longitude, the basic coordinates for the map, these maps show the Universal Transverse Mercator (UTM), township and range networks, as well as other coordinate systems. Campbell, John. Use map and analysis. William C. Brown Company, 1993. Monmonier, Mark. lie down with Maps. University of Chicago Press, 1991. Wilford, John Noble. Cartographers. Vintage Books, 2001. While everyone loves to beat on Apple Maps - and not without justification - none of the existing maps apps are pretty good yet. Whether it is data quality or user experience, all of which still make it wrong too often to be acceptable, and this needs to change. Apple, for all their data aggregation, cleaning, and disinfection problems, gets a few things right. Interface, both pre- and post-iOS 7 not only looks good, but provides a good amount of information not only your next turn, but turn after. Voice directions also do a good job of keeping you informed along long stretches of road, and advising you to stay left or right so that you are in the right place for an earlier turn rather than too late. Unfortunately, while Apple Maps can often take you to the block you're going to, it tends to break down when it comes to the exact location and entry into it. It's less human. It will tell you that you need to call right without warning you to get right, or you will tell you to go left when there are three options left, and just get to drafting well after a correct has passed. (And lest you think their data is perfect, today they told me to pull a u-turn on a dead-end road when I was actually in the middle of a 4-lane highway. This only came after we crossed the virtual dead end. On the way to Mountain View. yes.) Nokia Here maps, TomTom, and everyone who licenses data from them all has to do a better job, not only with this data, but with the presentation in a more humane way. Well-checked, constantly presented location that doesn't just tell you where to turn and get where, but makes sure you're in the right place to go back and help you get there. Like far too many things, if I could somehow mash Apple and Google Maps back together, I would get something approaching what I want – great data and great interface – but that's an option that no longer exists. For now, it's a race to see who can become more than the other, better, faster. Maps are heavy, no doubt. But getting lost sucks. What is a reasonable level of accuracy? What is a reasonable level of experience? If you miss a turn or are sent in the wrong direction, how often is it too often? We may earn a commission on purchases using our links. learn more. More.