

## Studying new techniques of composing 2D animation with 3D animation required for Animation Film production

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### **Abstract:**

Animation is a sequence of frames played per seconds and started to be a successful production when Walt Disney started animating his famous series like Tom and Gerry, But the problems started when the animated films started using digital animation and advanced techniques and the 3D animation using 3D objects and Camera movements have got a big market of animation production and then animated film starts asking about composing 2D animation with 3D animation , all these needs forced animation software to start to develop its options so that it can serve animation films and animators requirements starting by Adobe After effects which offers great results in motion graphics , animation and composting , but also Toon boom have released harmony premium The most powerful software ever created for animation production so that we can Access to a complete toolset for traditional frame-by-frame animation. Or Build simple to advanced cut out rigs with specialized tools. Master controllers save time when animating sophisticated rigs.

Also we can Import 3D Objects as Once we have exported a model using a 3D authoring software, we can import it into a 2.5 Scene and integrate it to set up your 2D animation scene. we have the possibility to convert our 3D models to the \*.fbx format compatible to be imported to Harmony. This will allow us to render 3D files with the associated textures without the need to copy over the textures manually .

Using multiplane space is a 2.5 Animation where we can move layers forward and backward on the Z-axis. Latest Animation softwares like toonboom harmony brings us a true three-dimensional space where we can actually rotate your camera and layers on all axes. This lets us perform a 360 degree rotation around elements, create a floor and even build sets!

Once we have a 3D set, the exciting part is to do a camera move in it. Once we know how to do this, we can enjoy the delights of working in 3D space and traveling inside with 2D or 3D animations together.

We can change the near and far clipping planes of the camera. The near plane is the point on the camera cone where the camera is located. The far clipping plane is the far end of the camera cone. Nothing outside that range is visible. This is useful when dealing with 3D elements and 3D sets.

And finally these latest solutions help us to animate 3D models and their individual parts directly while integrating 3D elements with 2D characters.

**Keywords:** animation; 2d; 3d; compositing.