
Subject: Issue with converting a facing to a Vector3.Z value to look at

Posted by [iRANian](#) on Wed, 14 Mar 2012 22:27:06 GMT

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I'm working on a modified spectate plugin that adds a feature to automatically follow a player (by attaching the player to the head bone of the guy to follow) and also have it automatically follow the camera of the guy that's being followed, what I'm using now works with X and Y but it doesn't work correctly with the Z-height. This is what I'm using:

```
void Iran_Spectate_Follow_Camera_Player::Timer_Expired(GameObject *o, int number)
{
    if(number == 1)
    {
        GameObject *Player = Get_GameObj(ID);
        if(o && Player)
        {
            float facing_spectatedguy;
            float PI = 3.14159265f;
            Vector3 pos2 = Commands->Get_Bone_Position(Player,"c head");

            facing_spectatedguy = Commands->Get_Facing(Player);

            pos2.X += 20.0f*(cos(facing_spectatedguy*PI/180));
            pos2.Y += 20.0f*(sin(facing_spectatedguy*PI/180));
            pos2.Z += 20.0f*(sin(facing_spectatedguy*PI/180));

            Force_Camera_Look_Player(o,pos2);
            Commands->Start_Timer(o,this,0.05f,1); // Loop
        }
    }
}
```

The Z-height of the camera is always off. I'm attaching the guy to the head of the other guy that he's following, according to `Commands->Get_Position()` this causes the position of both players be the same. I have the following two questions:

1. Is the way I calculate the Z-Height (pos2.Z in my case) correct?
2. Is it actually possible to get this correctly working, as third person and first person targeting have different Z-height from my experience?