Camera

- const XMVECTOR WORLD_UP
- XMVECTOR position
- XMVECTOR forward
- XMMATRIX worldMatrix
- XMMATRIX viewMatrix
- XMMATRIX projectionMatrix
- float nearPlane
- float farPlane
- float fov
- const float FOV_CHANGE_SPEED
- const float ZOOM_CHANGE_SPEED
- const float ZOOM_MIN
- const float ZOOM_MAX
- const float ZOOM_DISTANCE_FACTOR
- float aspectRatio
- float cameraDistance
- float theta
- float phi
- const float epsilon
- const float ROTATION_SPEED
- XMVECTOR velocity
- XMVECTOR movementDirection
- const float MOVE_SPEED
- const float acceleration
- const float dragFactor

+ float toRadians(float degrees)
+ float toDegrees(float radians)
+ void Initialize(int windowWidth, int windowHeight)
+ void changeAspectRatio(float newAspectRatio)
+ void AdjustFOV(float fovChangeFactor)
+ void Zoom(float zoomFactor)
+ void Rotate(int dx, int dy)
+ void MoveCamera(float dx, float dy, float dz)
+ void stopMovement()
+ void moveForward()
+ void moveLeft()
+ void moveBackward()
+ void moveRight()
+ void Update(double deltaTime)
+ void calculateP()
+ void calculateV()
+ XMVECTOR getPosition()
+ XMMATRIX getW()
+ XMMATRIX getV()
+ XMMATRIX getP()