Renderer # static constexpr int **CELL SIZE** + virtual ~Renderer() + GamePixmapItem * renderGame Objects(QList< QMap< DataRole, OVariant >> objectData) + virtual GamePixmapItem * renderGameObject(QMap < DataRole, QVariant > objectData) + virtual void renderGameObject (OMap < DataRole, OVariant > objectData, GamePixmapItem *item) + QPixmap rotatePixmap (const QPixmap &originalPixmap, int direction) + Olmage rotatelmage (const Qlmage &image, int direction) # QImage animateHealthPack (int health, GamePixmapItem *item) # OPropertyAnimation * animateTint(QColor final, QColor initial ={0, 0, 0, 0}) # QPropertyAnimation * animateAttack(int dir, bool attacking) # QPropertyAnimation animateBounce() # QPropertyAnimation animateHealth(Direction dir) # QPropertyAnimation animateHide()

ColorRenderer

- + ColorRenderer()
- + void renderGameObject (QMap< DataRole, QVariant
- > objectData, GamePixmapItem *item) override
- QPixmap renderTile (QMap< DataRole, QVariant > object)
- QPixmap renderDoorway (QMap< DataRole, QVariant > object)
- QPixmap renderHealthPack (QMap< DataRole, QVariant > object)
- QPixmap renderProtagonist (QMap< DataRole, QVariant > object)
- QPixmap renderEnemy (QMap< DataRole, QVariant > object)
- QPixmap renderPEnemy (QMap< DataRole, QVariant > object)
- QPixmap renderMovingEnemy (QMap< DataRole, QVariant > object)

OverlayRenderer

+ OverlayRenderer()

SpriteRenderer

- + static const QMap< ObjectType, CharacterData
- > m charMap
- Qlmage m tiles
- Qlmage m_characters
- QSize m charSize
- OSize m⁻tileSize
- + SpriteRenderer()
- + void renderGameObject (QMap< DataRole, QVariant
- > data, GamePixmapItem
- *item) override
- + GamePixmapItem * renderGame Object(QMap< DataRole, QVariant
- > data) override
- QImage sliceFrames
 (QImage image, QLine diagonal, OPoint frameSize)
- QRect getTileRect(QMap
- < DataRole, QVariant > data)
- QRect getCharacterRect (ObjectType type)
 int calculateFrame (QVariant direction, int POVnum)
- QPropertyAnimation
- * animateDeath(QPoint frame)
- * QImage m_tiles
- * Qlmage m characters
- * QSize m_charSize
- * QSize m_tileSize

- + void renderGameObject (QMap< DataRole, QVariant > data, GamePixmapItem *item) override
- Qlmage renderTile(QMap
- < DataRole, QVariant > data)
- QImage renderCharacter (QString str, QColor color, int direction=0)