

GALAXY FORGE GAMES, LLC

Side-Quest Design Document

Reevor's Infestation

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1/10/2017

This document contains the required details and information to develop, test, and release the Reevor Infestation Quest to the Skyrim Overhaul Mod Project: Baldur's Gate. This document was developed by the design team at GFG, LLC., under the Apache 2.0 License.

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1 Overview

1.1 Document Revision Tracking

This document is tracked and organized by the table listing below. Any action made in this document is performed under strict logging to this tracking table. Access to the document is performed in good faith that no action shall be taken on the document without expressly documenting the changes to be performed in the tracking log.

Date	User	Role	Activity
12/05/2016	Jonathan Adams	Project Lead	Initial Creation
12/06/2016	Jonathan Adams	Project Lead	Updated Game Function section.
12/07/2016	Jonathan Adams	Project Lead	Updated Quest Stages section.
01/10/2017	Jonathan Adams	Project Lead	Updated License and Reference information. Performed release document polishing.

1.2 Purpose

The purpose of this document is to provide a reference and development standard for the side quest *Reevor's Infestation* for the Skyrim Mod: Baldur's Gate software product. This document shall provide a consistent understanding and reflect changes to the structure and design as required by the functionality of the Game Engine. As well, any configuration changes or specific constraints that are encountered during development will be listed and indexed within this documentation.

1.3 Scope

1.3.1 Objectives

The objective of this project is completely re-create the Reevor Infestation quest from Baldur's Gate 1 into the Skyrim Overhaul Mod project. This document shall outline the quest details and creation procedures under the perspective of the Quest Dialogue system present in the Creation Kit.

1.3.2 Goals

The Goal of this project is to create the Reevor Infestation quest with an absolute 1-to-1 replication from the Baldur's Gate 1 CRPG into the Skyrim Overhaul Mod project. There are some sections of the quest which need expansion, and these sections shall be created with respectable quality so as to provide immersion and to replicate the themes and tones of the original Baldur's Gate game.

1.3.3 Architecture

This quest shall be created using the TESV Creation Kit (CK) software framework. The CK is a complete Skyrim Modding tool which can be utilized to overhaul the original Skyrim game and replace the majority of content with newly developed and modified content.

The CK software is provided to developers and modders by Bethesda Softworks, and works in conjunction with the Creation Engine developed by Bethesda Softworks LLC.

1.4 Glossary

These common terms are used throughout the document.

Term	Definition
Quest	A storyline game function in which the Player interacts with other characters by taking on requests for help and service in exchange for rewards.
Player	The Player is another term for the target end user who will utilize this product. The Player specifically refers to the User at the time when they are engaging with the software.
Creation Kit	The development software framework. The Elder Scrolls: Skyrim Creation Kit.
TESV	An acronym short for The Elder Scrolls: V (Skyrim).
Baldur's Gate (BG)	Baldur's Gate is a CRPG video game created in 1999. Baldur's Gate was originally created by TSR and Black Isle.
Stage	A package of functions, values, objectives, conditions, scenes, and dialogue as separate sections of a quest that can be called or initiated. A stage can be started or stopped through script snippets, console commands, and events that occur as part of the quest execution.
Reference Alias	A pointer-like object that allows a quest to change reference to different locations and actors as required during the quest. A Reference Alias is bundled with items, ai, scripts, and other conditional controls to apply a quest template state to an actor.
Dialogue	The written speech, recorded dialogue, and animations that collectively allows a player to speak with another actor.
Package	An AI Package of data, schedules, locations, and behavior scripts that control what an actor does at any specific time. Packages tell an actor what to do, where to do it, and when to do it.
kmyQuest	The Quest Script utilized by the Quest Dialogue.

2 Quest Design Overview

2.1 Description

The *Reevor's Infestation* quest involves the Player interacting with Reevor in Candlekeep. Reevor tells the player to clean the rats out of his warehouse. The player then enters Reevor's warehouse, and kills the five rats inside it. When the rats are killed, the player returns to Reevor for quest rewards and the quest is completed.

2.1.1 Quest Overview

The proceeding table outlines the major high-level data associated with the quest.

Major Quest Data	
Quest Allies	Reevor
Quest Enemies	Rats (x5)
Quest Objectives	Kill the Rats in the Storehouse (X/5), Speak to Reevor
Quest Locations	Candlekeep Storehouse
Quest Rewards	10 gold

2.2 Quest Perspective

This section defines the interfaces and perspectives this quest shares with other objects and functions of the game engine. These processes shall interface in a bi-directional manner unless otherwise defined, and any information related to the structural constraints or limitations of the quest in conjunction with external facets will be referenced.

2.2.1 Location Interfaces

This quest will occur in the isolated city-zone of Candlekeep, and in the interior cell of the Candlekeep Storehouse. The player will encounter Reevor standing outside the Storehouse, and encounter the rats within the interior cell of the Storehouse. The quest utilizes no other zones, cells, or locations.

Name	Cell Name	Location Reference	Type
Storehouse	_BG_CandlekeepStorehouse	_BG_CandlekeepLocation	Interior
City Area	_BG_CandlekeepCity03	_BG_CandlekeepLocation	Exterior

2.2.2 Quest Interfaces

The quest interfaces with only one other quest; the Main Prologue Quest. The Main Prologue Quest interacts with this quest after the player leaves Candlekeep during the Main Prologue Quest sequence. Once the player leaves Candlekeep, this quest is evaluated – if it is started and not completed then the quest will fail the quest; otherwise it will shut down as completed and idle.

Quest	Quest Name	Type	Interface Purpose
Main Quest: Prologue	_BG_MQCH00	Main Quest	Terminates this quest.

2.2.3 NPC Interfaces

There are multiple NPCs in this quest. The NPCs provide quest objectives and dialogue.

Reevor is the main quest giver, and rewards provider. Reevor is a dwarf male, and tells the player to clean out the storehouse.

The Rats are quest objective enemies spawned by the quest at the start of the game. On the death of a rat, a script -- attached to the rats -- is called to determine the count of total dead rats. When the count of quest-rats killed equals to 5, the quest is transitioned to the next stage. Since the rats exist in the quest location irrelevant of the quest received stages, the player may interact with the rats outside of the major actions of the quest and thus they are quest-dependent interfaces.

Name	Actor	Type	Functional Usage
Reevor	_BG_Reevor	Friendly	Provides the quest to the player.
Rat(s)	_BG_RatReevorQuest	Enemy	The quest objective.

2.2.4 Item Interfaces

There are no major item interfaces which are utilized in other parts of the game. This quest is largely encapsulated from most other objects.

2.2.5 Script Interfaces

The only interface to other scripts this quest maintains is to the Main Quest CH:00 cleanup script, as defined in section 2.2.2. The Cleanup Script triggers completion of this quest dependent on the current stage of the quest. If the rats have not been killed, or the player has not spoken with Reevor after receiving the quest and killing the rats, then the quest is failed. If the player has not started the quest by speaking to Reevor, then the quest is shutdown only. If the player has completed the quest, then the script does nothing.

Name	Script Name	Type	Functional Usage
MQCH00 Cleanup	_BG_MQCH00HandlerScript	Quest Script	Called by MQCH00 during a scene to cleanup residual incomplete quests in Candlekeep.

2.3 Quest Functions

This section describes the functional process the quest takes from beginning to completion, called quest functionality. All information relevant to the internal execution of the quest, and any calls to and from external interfaces are defined within the scope of quest functionality.

2.3.1 Quest Conditions

The Quest Conditions section defines any conditional features required for the quest to initiate or to shut down fully.

2.3.1.1 Quest Initiation

This quest is started on game start; however, the quest is not triggered as started in the player's journal until the player speaks with Reevor. Once the player has spoken with Reevor, the quest objective is displayed and the quest has started. There are no other Quest Initiation conditions that would stop the quest from beginning.

2.3.1.2 Quest Shutdown

This quest is shutdown either by completing the quest objectives, by failing to complete the quest objectives, or by failing to initiate the quest. Once the quest is completed, Reevor will return to his default package set.

2.3.2 Quest Rewards

The rewards for this quest are limited to the location, enemies, and provided rewards from the quest giving NPC. There are no other rewards provided to the player outside the rewards defined in the proceeding table.

Reward Source	Quality	Value	Rewards
Reevor	Poor	10 gp	10 gold coins
Rats (x5)	Poor	5 gp/ea.	Minor goods, food, and potion or cooking ingredients. As well, combat experience from killing the rats.
Storehouse	Common	25 gp	Silver ring (x1). Minor goods, food, and potion or cooking ingredients.

2.3.3 Quest Sequence

This quest follows a sequence of three primary activities as stages: speaking with Reevor to obtain the quest, completing the quest objective to kill the rats in the Storehouse, and speaking with Reevor to complete the quest. As such, this quest follows a typical quest activity diagram, moving from one stage to the next in non-repetition, displayed in the graph below.

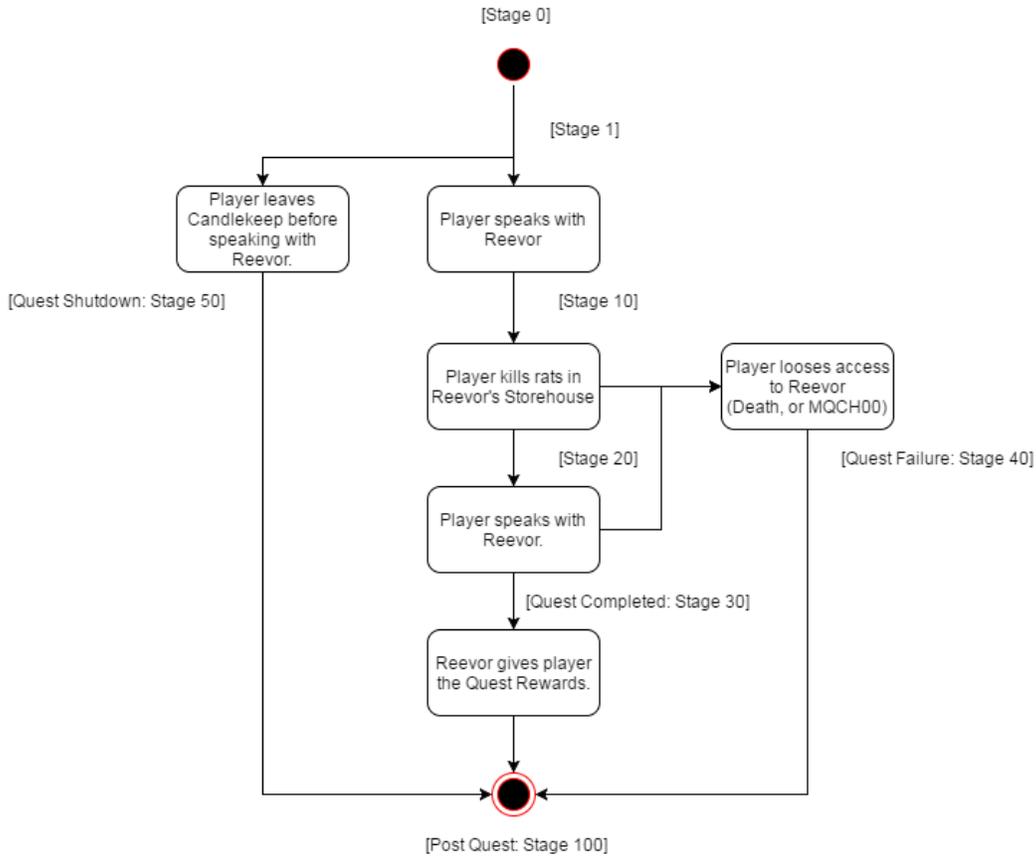


Figure 1 - Reevor's Infestation Quest Flow Diagram

2.3.4 Quest Objectives

This quest has two primary objectives – to kill the rats in the storehouse, and to speak with Reevor.

The first objective is to kill the rats in the Storehouse. The quest shall spawn 5 quest-specific rats at the beginning of initialization. These rat will be of low level, and easy to kill. They shall have a script attached to them which will call a counting function on the quest when they die.

Objective Text	Objective Target	Completion Condition
Kill the Rats in Reevor's Storehouse (X/5)	Location Alias: Reevor's Storehouse	All 5 rats in the storehouse are killed.
Speak with Reevor	Reference Alias: Reevor	The player has spoken with Reevor.

2.3.5 Quest Stages

The stage section describes each of the primary quest stages required to execute this quest in detail. Each section defines specific dialogue, journal entries, scripts, and transitions that occur during the stage.

2.3.5.1 Stage 0

Stage 0 of this quest is an initialization stage in which no activity occurs. The Stage shall call a set-up function from the kmyQuest to handle any necessary setup of variables and values, and then the quest will transition to Stage 1. No other activity, journal entries, dialogue, or other processes will occur in this stage.

2.3.5.1.1 Stage Dialogue

There is no dialogue that occurs during this stage.

2.3.5.1.2 Stage Journal Entries

There are no journal entries triggered during this stage.

2.3.5.1.3 Stage Scripts

This stage has two major snippets that occurs during the stage, described in the tables below.

This script describes the quest start-up block snippet, which calls the baseline kmyQuest to set up various values or objects in the quest which isn't normally handled by the creation of aliases or set through quest constants.

Name	Stage 0
Type	Snippet
Description	This quest calls the setup function using the kmyQuest variable, and then transitions the quest to Stage 1 when the setup function has completed.
Triggers	On initialization of the stage.
Location	Attached to the quest stage as a snippet.
Expected Output	The quest variables are set and the quest transitions to the next stage.
Notes	None.

This snippet reflects a function which is called by other scripts when the quest starts.

Name	Setup
Type	Function
Description	This function resides in the kmyQuest script, and is called from the Stage 0 script-block. This function will initialize any global quest variables to their starting values.
Triggers	By call from external scripts.
Location	In the handler script attached to the quest dialogue scripts tab (i.e. kmyQuest).
Expected Output	The global variables are set.
Notes	_BG_ReevorKillCount is a global value set to 0. _BG_ReevorKillTotal is a constant global value set to 5.

2.3.5.1.4 Stage Transitions

This stage has one transition to Stage 1. This transition is called in the Stage 0 script snippet.

2.3.5.1.5 Stage Actions & Packages

There are a few distinct stage features that occur in this stage.

In this stage, Reevor obtains an idle package through his reference alias. Reevor shall move to and sandbox, within a range of 512, an idle marker outside of the Storehouse. For quest safety and debugging, Reevor's spawn location shall be in the Candlekeep Inn. Once the quest starts, Reevor shall move to the idle marker, and shall sandbox between nearby markers until the quest stage reaches 100.

Package Name	Duration	Type	Description
_BG_ReevorInfestationReevorSandbox	Stage 0 - 100	Sandbox	Reevor idles in a Sandbox package at a range of 512 outside of the door to the Storehouse.

In this stage, the Rats will be spawned in the Storehouse. On initialization of the quest, the Rat reference aliases shall be spawned at the Storehouse spawn marker. Each rat will be given a sandbox idle package for the entire cell through their alias. The cell should have multiple idle marker that the rats may move between – eating, rummaging, etc. The rats will receive their Rat OnDeath Handler script (see Stage 10 Scripts, section 2.3.5.3.3) through their quest Reference Alias.

Package Name	Duration	Type	Description
_BG_ReevorInfestationRatSandbox	Stage 0 - 30	Sandbox	Rats idle in a Sandbox package in the cell (Storehouse).

2.3.5.2 Stage 1

Stage 1 of this quest establishes the idle state before the quest has been accepted by the player. In this stage, the quest giver – Reevor – speaks dialogue to the player and then the quest is started. Once the quest is started, the stage transitions to the next stage.

2.3.5.2.1 Stage Dialogue

This stage has only one block of spoken dialogue. The dialogue shall be spoken and then the quest is started. This dialogue is spoken only once, and shall block any other dialogue that the NPC may speak.

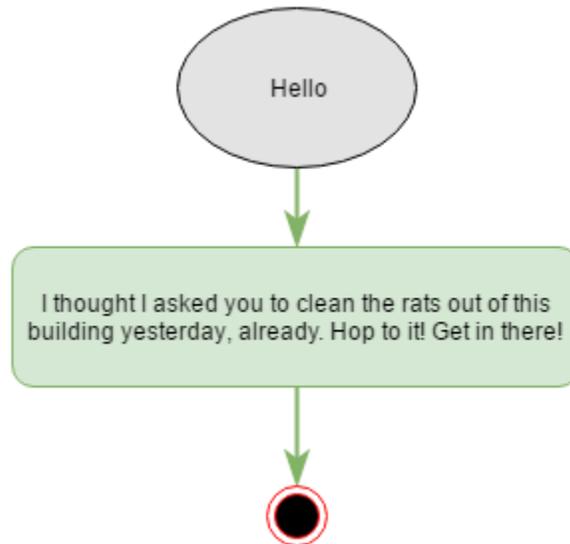


Figure 2 - Reevor Dialogue Stage 01

2.3.5.2.2 Stage Journal Entries

This stage has no journal entries associated with it.

2.3.5.2.3 Stage Scripts

This stage has one script case which is triggered at the end of the spoken dialogue. There is no other scripted actions in this stage aside from the triggered script.

This snippet defines a script block that triggers a transition to the next stage.

Name	Trigger Quest Start
Type	Snippet
Description	This snippet is called on the end of the spoken dialogue said by Reevor. This snippet shall trigger the transition to the next stage.
Triggers	By call from the dialogue completing.
Location	Attached as a snippet to the dialogue.
Expected Output	The stage transitions to the next stage.
Notes	The next stage in the sequence is 10.

2.3.5.2.4 Stage Transitions

This stage has one transition from Stage 1 to Stage 10. This transition occurs at the end of the dialogue with Reevor.

2.3.5.2.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.3 Stage 10

Stage 10 of this quest enables the player to complete the major quest objectives. In this stage, the player may speak with Reevor to receive instructions, or they may kill the rats. This stage remains open unless the player fully completes the primary objective to kill all the rats.

2.3.5.3.1 Stage Dialogue

This stage has one sequence of dialogue, spoken by Reevor. In this dialogue, Reevor insults the player for not quickly killing the rats, and then references the location of the rats.

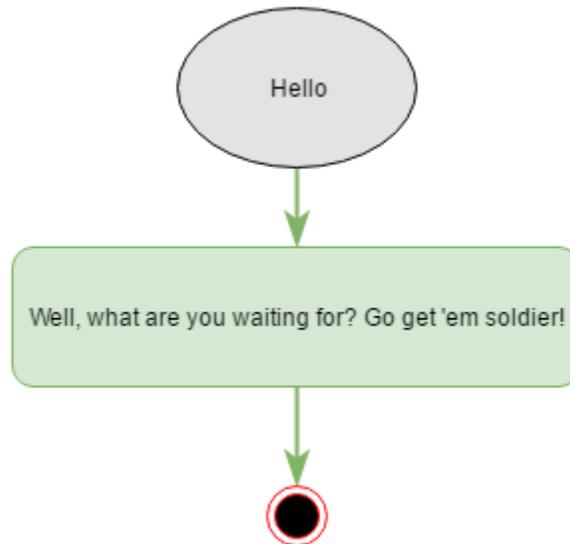


Figure 3 - Reevor Dialogue Stage 10

2.3.5.3.2 Stage Journal Entries

This stage has one journal entry related to the start of the quest objective. This journal entry is displayed on the start of this stage.

Entry	Journal Text	Conditions
1	Reevor has once again pressed me into service in his storehouse. All reports suggest that our feline forces have turned traitor and that the rats are on the offensive. It appears that I am our last hope in the face of such an awesome display of power. Farewell, dear Journal... Farewell.	Default/None.

2.3.5.3.3 Stage Scripts

This stage has three acting scripts – the OnDeath handling script for the rats, the quest-attached handler script, and the Stage Start script. The OnDeath handling script is attached to the rats and triggers a counter on the quest helper script. The quest-attached handler script adds up the kill-counter and compares it to the objective. The stage start script handles setting of the quest state and displaying objectives.

This script handles the OnDeath of each rat. It is attached to the rat through alias reference, and called when an OnDeath event is raised by the alias.

Name	Rat OnDeath Handler
Type	Script
Description	This script has one function; the event OnDeath event function. This function is called when the rat is killed. When it is killed it calls the increase count function on the quest handler (kmyQuest) script.
Triggers	By On Death Event of the Reference Alias.
Location	Attached as a script to the Reference Alias.
Expected Output	The kill counter function is called.
Notes	This script should not have or require any quest information, other than calling the quest handler script. All stage information is handled in that script.

This script is the kmyQuest Handler Script, and consists of two major functions for this stage – the kill count increment function, and the count objectives function. This script is attached to the Quest, and fills the kmyQuest variable role.

Name	Quest Handler Script
Type	Script
Description	<p>This script is modularly called from other functions in the quest. There shall be two central functions:</p> <p><i>Kill Count Increment:</i> This function increases the global variable, <code>_BG_ReevorKillCount</code>, with the current number of dead rats killed during the quest.</p> <p><i>Count Objectives:</i> This function begins by refreshing the global variable for visibility on the quest objective. Then, this function shall determine the stage of the quest, and call functions based on the stage. If the stage is 10 and the rat kill count is less than the value required by the quest, then the quest will display the quest objective forcefully. If the stage is 10 and the rat kill count is equal to or greater than the value required by the quest, then the quest will display the objective as completed, and the quest will transition from 10 to 20.</p>
Triggers	By call from the dialogue completing.
Location	Attached as a snippet to the dialogue.
Expected Output	The stage transitions to the next stage.
Notes	The next stage in the sequence is 10.

The Stage Start script handles the initialization for the quest.

Name	Start Stage 10
Type	Snippet
Description	This snippet is called on the start of stage 10. The script shall set the objective displayed to kill the rats, and then call the calculate function in the quest handler script to calculate the number of rats needed to proceed.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage displays the first objective and calculates the remaining rats to kill.
Notes	If the player has already killed the rats, then handling will be provided by the calculate function.

2.3.5.3.4 Stage Transitions

This stage has one transition to Stage 20. This transition is called from the Count Objectives function in the Quest Handler Script.

2.3.5.3.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.4 Stage 20

Stage 20 is the quest turn-in stage which allows the proper selection of dialogue for Reevor, and sets the quest objective to speak with Reevor.

2.3.5.4.1 Stage Dialogue

There is one sequence of dialogue spoken in this stage. This dialogue is spoken by Reevor, and he provides rewards to the player through this dialogue.

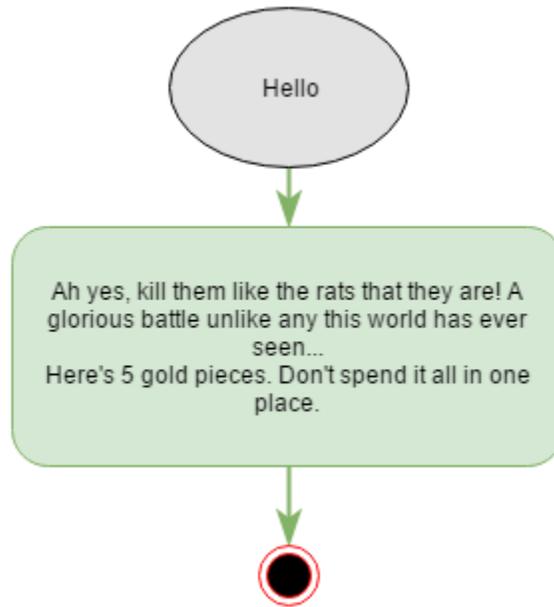


Figure 4 - Reevor Dialogue Stage 20

2.3.5.4.2 Stage Journal Entries

There are no journal entries associated with this stage.

2.3.5.4.3 Stage Scripts

There are two scripts which are used during this stage. One script is a snippet attached to the stage which sets the objective displayed. The other script is a snippet called at the end of the Reevor dialogue, and it provides the player with rewards.

This snippet is the script block attached to the stage, which performs stage-initiation.

Name	Start Stage 20
Type	Snippet
Description	This snippet shall set the objective displayed to speak with Reevor, and then set the previous objective to kill the rats as completed.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage displays the objective to speak with Reevor.
Notes	

This script is a snippet attached to the dialogue spoken by Reevor.

Name	Reevor Dialogue Snippet
Type	Snippet
Description	This script shall give the player a reward for completing the quest. Once the reward is given to the player, the quest is transitioned to stage 30.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage displays the objective to speak with Reevor.
Notes	

2.3.5.4.4 Stage Transitions

There is only one stage transition that occurs during this stage. The transition is called through the Reevor end-of-dialogue script, and transitions to Stage 30.

2.3.5.4.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.5 Stage 30

Stage 30 is a quest completion and cleaning stage. During this stage, no dialogue activity occurs and only a quest script is executed to close out the open objectives and perform any necessary post-quest functions. This stage marks the quest as completed and shutdown.

2.3.5.5.1 Stage Dialogue

There is no dialogue associated with this stage.

2.3.5.5.2 Stage Journal Entries

This stage has one journal entry, which reflects the completion of the quest.

Entry	Journal Text	Conditions
1	Mental note: Don't join the armed forces. They never inform you of the full danger when you enter, and they always pay you squat when you leave. Reevor gave me all of 5 gold pieces for putting my life on the line in there. Isn't there a Candlekeep People's Revolutionary Front I can join somewhere?!	Default/None.

2.3.5.5.3 Stage Scripts

This stage has one script attached as a snippet to the start of the stage. This snippet performs any necessary actions to fully complete the quest and leave it in a secure state.

Name	Start Stage 30
Type	Snippet
Description	This snippet shall set any open objectives to complete, and set the stage to 100.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage transitions to 100.
Notes	

2.3.5.5.4 Stage Transitions

This stage has one transition to stage 100, which is a post-quest idle state.

2.3.5.5.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.6 Stage 40

This stage is a quest failure stage. If the player leaves the inner grounds of Candlekeep in the Main Quest with Gorion; then the player becomes isolated from Candlekeep and may not complete the final objectives of the quest. If the player has accepted the quest, and performed any objectives without finally turning in the quest to Reevor, then the quest is set to this stage when the player leaves Candlekeep. As well, if the player or any other actor successfully kills or assaults Reevor when the player has already accepted the quest, and the stage is not 30, then the quest fails to this stage. This stage marks the quest as failed and shutdown.

2.3.5.6.1 Stage Dialogue

There is no dialogue associated with this stage.

2.3.5.6.2 Stage Journal Entries

There are two journal entries associated with this stage, and each defines the failure of the quest. If the player leaves Candlekeep before completing the quest, then the default entry will display. If Reevor is dead, then the second entry will be displayed.

Entry	Journal Text	Conditions
1	Reevor will need to find someone else to clean out his storehouse. It's not worth the effort to help him.	Default/None.
2	I don't think Reevor needs his storehouse cleared out anymore – he is unfortunately no longer with us.	Reevor is dead.

2.3.5.6.3 Stage Scripts

There are three scripts associated with this stage; a snippet to handle the initialization of the stage, a script to call the transition to this stage, and the Reevor OnDeath and OnAssault event functions.

This script snippet is attached to the stage initiation block for both versions of the Journal Entry.

Name	Start Stage 40
Type	Snippet
Description	This snippet shall set any open objectives to complete, and set the stage to 100.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage transitions to 100.
Notes	

This script handles setting the stage to 40 for the quest to handle failure.

Name	FailQuest (Quest Handler Script)
Type	Script
Description	This script shall set the stage of the quest to 40.
Triggers	By external call to the Quest Handler Script.
Location	Function in the Quest Handler Script (kmyQuest)
Expected Output	The stage transitions to 40.
Notes	

This script handles the OnDeath event function on Reevor.

Name	Reevor OnDeath
Type	Script
Description	This function shall call the FailQuest function from the Quest Handler Script.
Triggers	By OnDeath event from Reevor.
Location	Function the Reevor Handler Script.
Expected Output	The kmyQuest "FailQuest" function is executed.
Notes	This should conditionally check if the stage is greater than or equal to 10 (i.e. quest is started).

This script handles the OnAssault event function on Reevor.

Name	Reevor OnAssault
Type	Script
Description	This function shall check if the assaulting actor is the player or part of the player's faction, and then call the FailQuest function from the Quest Handler Script.
Triggers	By OnAssault event from Reevor if the assaulter is the Player or part of the Player Faction.
Location	Function the Reevor Handler Script.
Expected Output	The kmyQuest "FailQuest" function is executed.
Notes	This should conditionally check if the stage is greater than or equal to 10 (i.e. quest is started).

2.3.5.6.4 Stage Transitions

This stage has one transition to stage 100, which is a post-quest idle state.

2.3.5.6.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.7 Stage 50

This stage is a safety quest shutdown stage. The quest neither completes nor fails if this stage is called. There are only two conditions in which this state is called – the player leaves Candlekeep before accepting the quest from Reevor, or Reevor is killed before the player is able to speak with him. This stage performs simple quest cleanup and the quest is transitioned to stage 100.

2.3.5.7.1 Stage Dialogue

There is no dialogue associated with this stage.

2.3.5.7.2 Stage Journal Entries

There are no journal entries associated with this stage.

2.3.5.7.3 Stage Scripts

There are three scripts associated with this stage; a snippet to handle the initialization of the stage, a script to call the transition to this stage, and the Reevor Handler Script which includes two functions to call transition to this stage by events and conditions.

This script snippet is attached to the quest stage initiation block and handles any stage-specific startup procedures.

Name	Start Stage 50
Type	Snippet
Description	This snippet shall set any open objectives to complete, and set the stage to 100.
Triggers	By call on start of the stage.
Location	Attached as an initialization snippet to the stage.
Expected Output	The stage transitions to 100.
Notes	

This script is included as a function in the quest handler script (kmyQuest) to be called from actor scripts and other external sources.

Name	SafelyTerminateQuest (Quest Handler Script)
Type	Script
Description	This script shall set the stage of the quest to 50.
Triggers	By external call to the Quest Handler Script.
Location	Function in the Quest Handler Script (kmyQuest)
Expected Output	The stage transitions to 50.
Notes	

This script-function handles the OnDeath event function on Reevor, and is part of the Reevor Handler Script.

Name	Reevor OnDeath
Type	Script
Description	This function shall call the FailQuest function from the Quest Handler Script.
Triggers	By OnDeath event from Reevor.
Location	Function the Reevor Handler Script.
Expected Output	The kmyQuest "SafelyTerminateQuest" function is executed.
Notes	This should conditionally check if the stage is less than 10 (i.e. quest is not started).

This script-function handles the OnAssault event function on Reevor, and is part of the Reevor Handler Script.

Name	Reevor OnAssault
Type	Script
Description	This function shall check if the assaulting actor is the player or part of the player's faction, and then call the SafelyTerminateQuest function from the Quest Handler Script.
Triggers	By OnAssault event from Reevor if the assaulter is the Player or part of the Player Faction.
Location	Function the Reevor Handler Script.
Expected Output	The kmyQuest "SafelyTerminateQuest" function is executed.
Notes	This should conditionally check if the stage is less than 10 (i.e. quest is not started).

2.3.5.7.4 Stage Transitions

This stage has one transition to stage 100, which is a post-quest idle state.

2.3.5.7.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.5.8 Stage 100

This stage is a post-quest idle state, which leaves the quest as shutdown. This stage is the final stage of the quest, and no quest activity occurs during this stage.

2.3.5.8.1 Stage Dialogue

There is no dialogue associated with this stage.

2.3.5.8.2 Stage Journal Entries

There are no journal entries associated with this stage.

2.3.5.8.3 Stage Scripts

There are no scripts associated with this stage.

2.3.5.8.4 Stage Transitions

There are no transitions that occur in this stage.

2.3.5.8.5 Stage Actions & Packages

There are no new special stage actions or packages that occur in this stage.

2.3.6 Quest Completion

The Quest is completed in three separate ways; success of objectives, failure of objectives, or failure to start the quest.

2.3.6.1 Quest Success Shutdown

The Quest Success condition is called when all objectives have been completed. This is called during stage 30. When the quest has shutdown, the player receives the quest rewards from Reevor. When the rewards are added to the player's inventory, they shall be removed entirely from Reevor's inventory. If Reevor has the quest rewards pick-pocketed from his inventory, the quest shall still provide the player with appropriate rewards.

2.3.6.2 Quest Failure Shutdown

The Quest Failure condition is called from the player leaving Candlekeep, or on the death of the quest giver, Reevor. Reevor has one handler script attached to him through his Reference Alias which executes an OnDeath event and OnAssault event to call the Quest's handler script to either fail or neutrally shutdown the quest. See the scripts described in Stage 40 (section 2.3.5.6.3) and Stage 50 (section 2.3.5.7.3) for more information.

As well, the quest may be shut down through failure if the player leaves Candlekeep before the quest objectives have been completed. This is handled by an interface call to the kmyQuest.

2.3.6.3 Quest Neutral Shutdown

The Quest Neutral condition is called from the player either leaving Candlekeep, or the death of the quest giver, Reevor. Reevor has one handler script attached to him through his Reference Alias which executes an OnDeath event and OnAssault event to call the Quest's handler script to neutrally shutdown the quest. See the scripts described in Stage 50 (section 2.3.5.7.3) for more information.

Additionally, the quest may be neutrally shutdown if the player leaves Candlekeep before the quest is accepted. This is handled by an interface call to the kmyQuest.

3 Quest Design Planning

This section outlines the timetables and development concerns for the planned creation of the quest.

3.1 Development and Testing

This quest shall be developed under the following development schedule. There are three phases for the development: Quest Development, Unit Testing, and Final Acceptance Testing.

3.1.1 Sub-Phases

With each phase, there are multiple sub-phases.

3.1.1.1 Quest Development

Quest Development has five sub-phases; Quest Form Creation, Alias Creation, Script Development, Package Development, and Dialogue/Voice Recording.

Sub-Phase	Task Scope
Quest Form Creation	Handles development of the quest form, stage creation and set up, journal development, and quest associations.
Alias Creation	Handles creation of the actors, placement of the actors, alias creation and creation conditions.
Script Development	Development of all scripts in or associated with the quest as defined in this document.
Package Development	Development of the default Actor packages, and Alias Reference packages.
Dialogue/Voice Recording	Development of the quest writing and dialogue, voice recording, and actor animation events for speaking.

3.1.1.2 Unit Testing

Unit testing is performed as sub-tasks are completed in the development phase. Each Development Sub-Phase has a corresponding Unit Testing phase.

3.1.1.3 Acceptance Testing

Acceptance Testing is performed at the end of the quest, during the final weeks of development. Acceptance testing shall validate that all quest conditions operate properly during each stage, that stages transition correctly, and that conditions managing quest start-up and shut-down are validated as correctly operating.

3.1.2 Tasks

See the Asana Reevor Infestation Quest Tasks Webpage for task tracking and management.

3.1.3 Resources

This quest shall be developed with minimal resources. This project is developed as a hobby project, and team members shall contribute time as available.

3.1.4 Budget

This project is developed under a limited budget. No funding shall be available for the creation of this quest.

3.1.5 Schedule

The following time-scale table shows the development sequence and planned unit-testing phase. Once Full Quest Acceptance Testing is completed, a final phase to capture video recordings for marketing and advertisement will be performed. There is no timescale for completion of this final event.

Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Quest Creation	X					
Alias Creation	X	X				
Alias Unit Testing			X			
Script Development	X	X				
Script Unit Testing			X			
Package Development	X	X	X			
Package Unit Testing				X		
Voice Recording				X	X	
Dialogue Testing					X	
Combat Balance Testing					X	
Full Quest Acceptance Testing						X

4 Appendix

4.1 References

- Creation Engine. (n.d.). Retrieved January 10, 2017, from https://en.wikipedia.org/wiki/Creation_Engine
- Reevor's Infestation. (n.d.). Retrieved January 10, 2017, from http://baldursgate.wikia.com/wiki/Reevor%27s_Storehouse
- Creation Kit Wiki. (n.d.). Retrieved January 10, 2017, from <http://www.creationkit.com>
- IEEE Standard for Information Technology—Systems Design— Software Design Descriptions. (n.d.). Retrieved January 10, 2017, from <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5167255&isnumber=5167254>
- 29148-2011 - ISO/IEC/IEEE International Standard - Systems and software engineering -- Life cycle processes --Requirements engineering. (n.d.). Retrieved January 10, 2017, from <http://ieeexplore.ieee.org/document/6146379/?reload=true>

4.2 License

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Side-Quest Design Document: Reevor's Infestation

A design document developed for the content creation team to lead the development of the Skyrim Overhaul Mod Project: Baldur's Gate.

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