*Florida International University*

*School of Computing and Information Sciences*

Software Engineering Focus

Feature Document

User Story ID #723 Create Interactive Button

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**Project:** VR-Gaming to Broad Participation in CS

**Product Owner(s)**: Francisco Ortega

**Mentor(s)**: Francisco Ortega

**Instructor**: Masoud Sadjadi

**User Story Name: Create Interactive Button**

* Description: As a developer, I want to implement an interactive button in Unreal, so that the user can initiate a command on call.

Acceptance Criteria

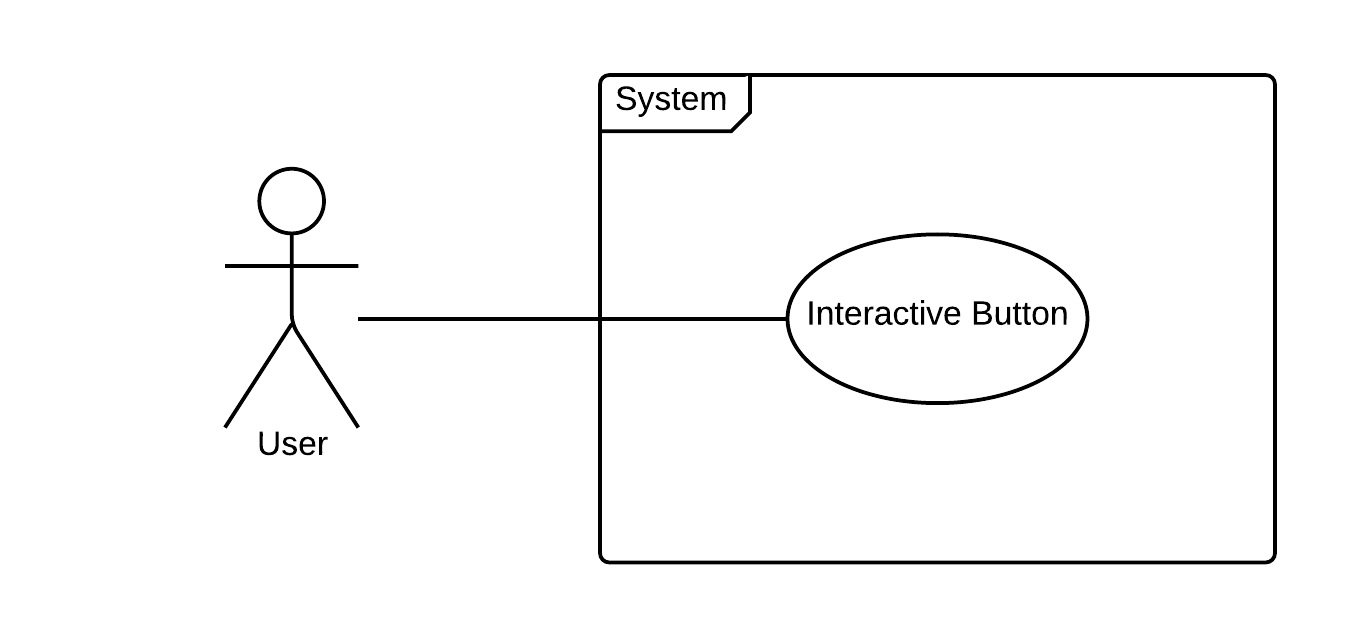
* Verify that the interactive button can be assigned to any object in Unreal.
* Verify that when the user is within range of the button a message pops up informing the user what to press in order to interact with the button.
* Verify that the user can only interact with the button when within range.
* Verify that the command gets initiated when the user presses the correct key.
* Verify that the proper function is executed when the user initiates the command.

**Use Case**

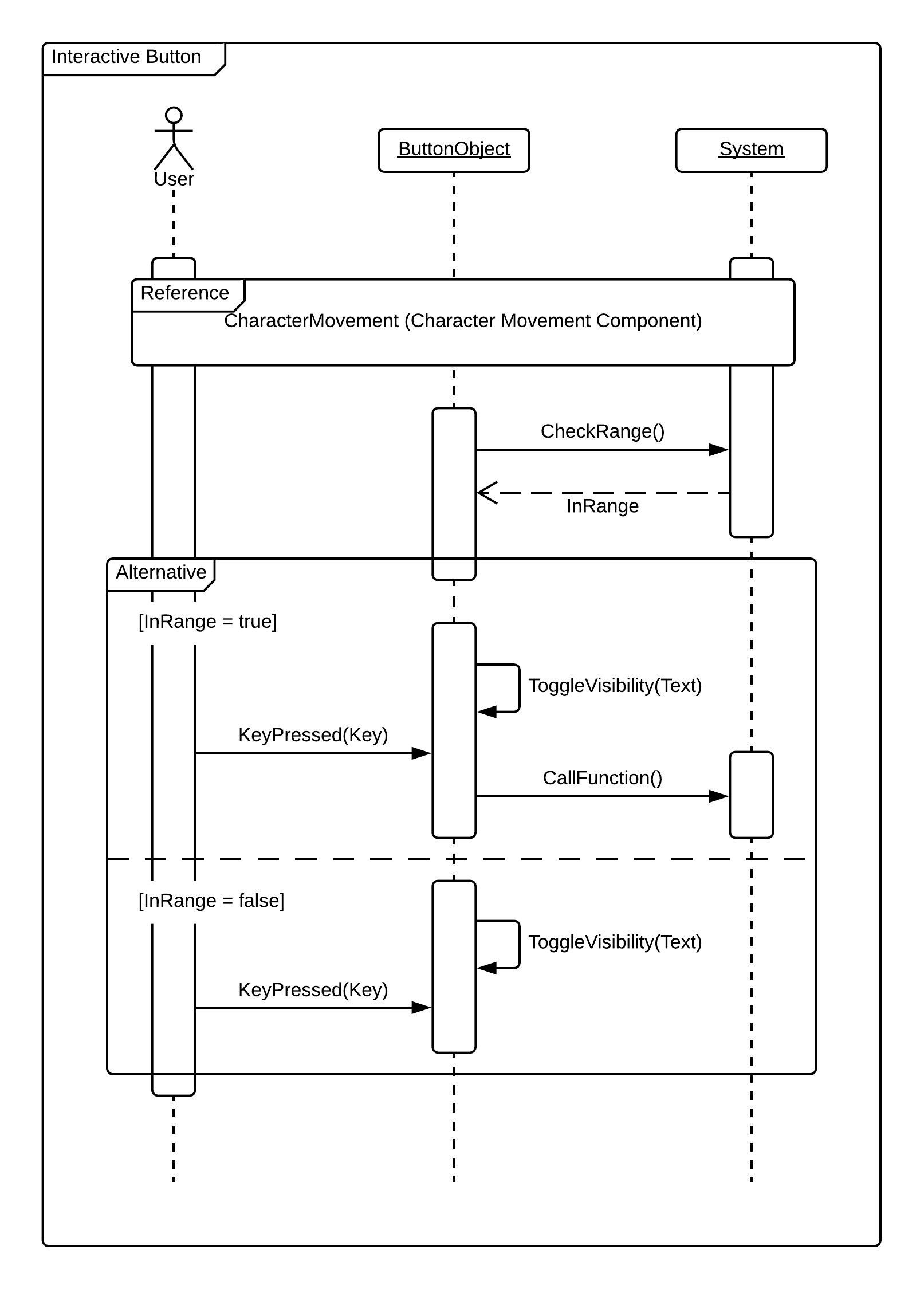
* Name: Interactive Button
* Actor: User
* Preconditions: Interactive button must be assigned to an object.
* Description <Flow of events>:

1. The user moves within range of the button.
2. A message pops up informing the user what to press in order to interact with the button.
   1. If the user moves out of range the message disappears.
3. The user interacts with the button only if within range.
4. The command gets initiated.
5. The proper function gets executed.

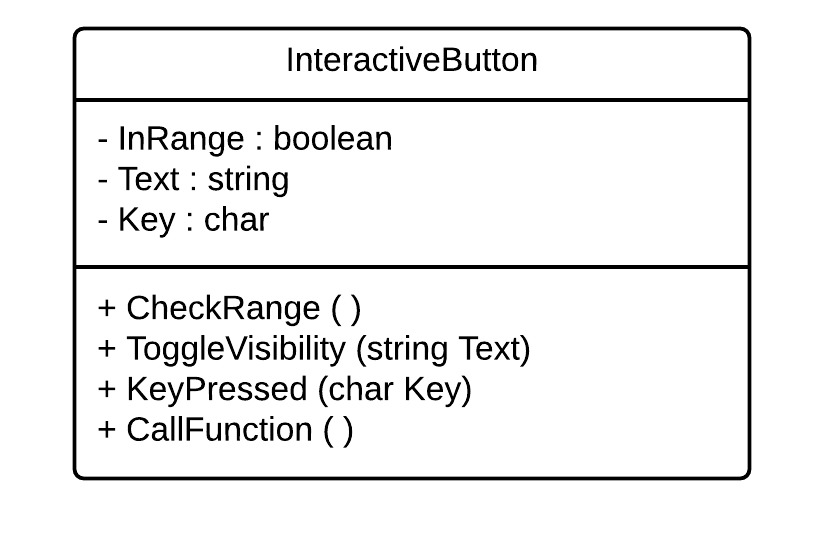
**Use Case Diagram**



**Sequence Diagram**



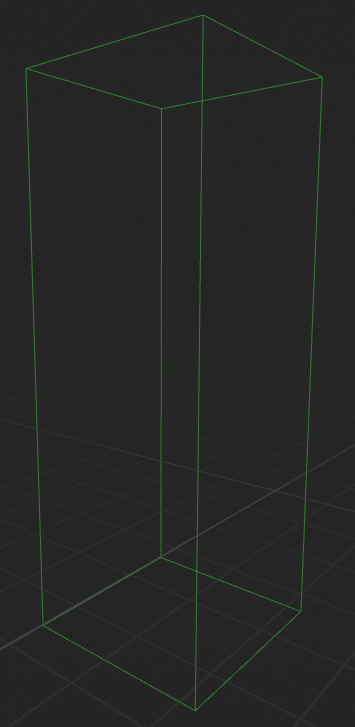
**Class Diagram**



**Unit Test**

* Test case ID: assign\_button
* Description/Summary of Test: Interactive button can be assigned to any object in Unreal.
* Pre-condition: Object must exist in level.
* Expected Results: The object gains the functionality of the interactive button.
* Actual Result: The object gained the functionality of the interactive button.
* Status (Fail/Pass): Pass
* Test case ID: toggle\_message\_on
* Description/Summary of Test: A message is shown when the user is within range of the button.
* Pre-condition: The user is within range.
* Expected Results: Message is shown on screen.
* Actual Result: Message is shown on screen.
* Status (Fail/Pass): Pass
* Test case ID: toggle\_message\_off
* Description/Summary of Test: The message is hidden when the user is not within range of the button.
* Pre-condition: The user is not within range.
* Expected Results: Message is hidden.
* Actual Result: Message is hidden.
* Status (Fail/Pass): Pass
* Test case ID: press\_button\_1
* Description/Summary of Test: The user can only interact with the button when within range.
* Pre-condition: The user is within range and the correct key is pressed.
* Expected Results: The command gets initiated.
* Actual Result: The command got initiated.
* Status (Fail/Pass): Pass
* Test case ID: press\_button\_2
* Description/Summary of Test: The user can only interact with the button when within range.
* Pre-condition: The user is not within range and the correct key is pressed.
* Expected Results: Nothing happens.
* Actual Result: Nothing happened.
* Status (Fail/Pass): Pass
* Test case ID: execute\_function
* Description/Summary of Test: The proper function is executed when the user initiates the command.
* Pre-condition: The user is within range and the correct key is pressed.
* Expected Results: The function gets executed.
* Actual Result: The function got executed.
* Status (Fail/Pass): Pass

**Visual User Guide**

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