

# Brilliant Student VS Zombie Professors Protocol Definition

## Overview

This document contains part of the protocol definitions for the Brilliant Students vs Zombie Professors game. The system has many different agents (processes) that need to communicate with each other. The defined protocols are only those involve the Brilliant Students (BS), Whining Twine Generators (WG), and the Excuse Generators (EG).

## Communication Patterns

Figure 1: Successful Request-Reply Conversation

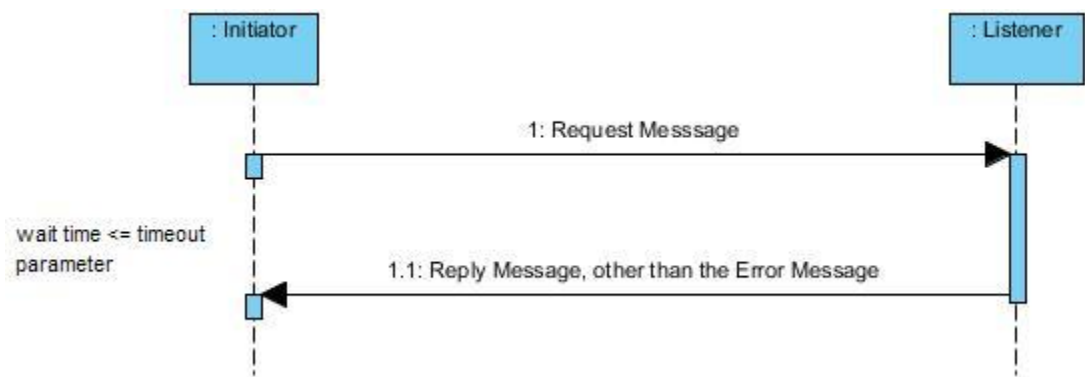


Figure 2: Timeout Request-Reply

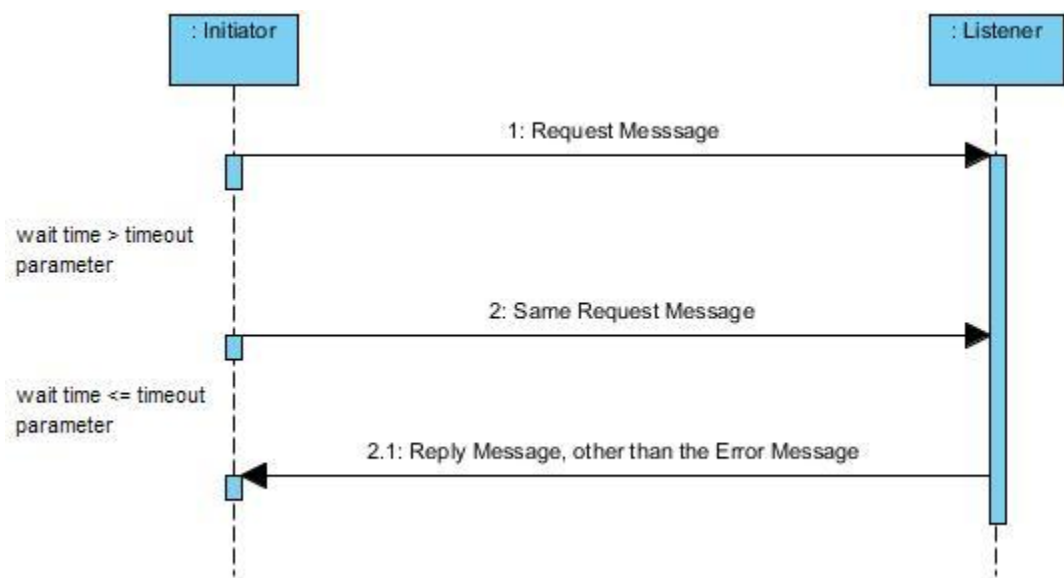


Figure 3: Request without response



Conversations

**Table 1 : All of the conversations with descriptions**

Conversation	Initiator	Receiver	Type	Request Message	Response Message	Description
Register	BS,WG,EG	Game	Request/Response	Register	Ack	Register with the playing field and be placed
Move	BS	Playing Field	Request/Response	Move	Ack	Move
Throw Bomb	BS	Playing Field	Request/Response	Bomb	Ack	throw a bomb on the field
Clock Tick	Clock Tower	BS,WG,EG	Request	TimeTick	N/A	clockTower sends everyone a time tick
GetField	BS	Game	Request/Response	FieldReq	FieldRes	Bs asks for the Playing Field
getParams	ANY	Game	Request/Response	ParamReq	ParamRes	Get the current Parameters
GetLayout	BS	Playing Field	Request/Response	LayoutReq	LayoutRes	Get the layout of the ground(grass/sidewalk )
getAgents	BS	Playing Field	Request/Response	AgentReq	AgentRes	Get information about agents (BS,WG,EG,ZP)
getMaterial	BS	WG,EG	Request/Response	WineReq   TwineReq	WhineRes   TwineRes	Get an excuse or twine from the generator
GetTarget	BS	BS	Request/Response	TargetReq	TargetRes	Get the ZP the other BS is currently targeting
DecreaseHealth	Playing Field	BS,EG,WG	Request	DecreaseHealth	N/A	Notify agent that it is being eaten/killed

Figure 4:Message Hierarchy

