

entertAI n play DOCUMENTATION SUMMARY



THE UNITY PLUGIN

entertAI n play can detect players' emotions through audio. The most important features of entertAI n play are namely: embedded, light-weight, resource-friendly, drag-and-drop Unity Game Engine integration, etc.

The applications of this product include player emotional input as immersion factor/control, emotional monitoring for child-safety, player feedback, etc.

GAME FLOW

- 1. Game Design:** Capturing the player's voice through a specific event in the game, or constantly recording it for the environment adaptation to the player's emotion.
- 2. Record and Stream:** Capturing the audio through Microphone interface and streaming that to the „emotion AI“ models.
- 3. openSMILE / SensAI:** entertAI n core technology will extract 6000 audio features and returns scores for default emotions.
- 4. Game Interface:** Receiving the emotion and changing the game accordingly (e.g. trigger animations).
- 5. New iteration:** For the new game event, the player's emotion can be analyzed again

FILES AND CLASSES DESCRIPTION

Sens AI : This is the main script which is in charge of recording the audio, sending it for analysis and retrieving the emotion results. This script must be attached to the Game Object with the Audio Source Component on the scene. The followings are the most important events and functions inside this class.

Emotion Data: This file acts as a model for emotion data, highest emotion and also emotion categories.

Emotion Detection: This class calls on the GetFunctions (e.g. GetHappiness()) from SensAI and stores the retrieved value (e.g. amount of happiness in the last utterance) in a variable. It can be attached to any game object which is supposed to react to the selected emotion and inside the script the behavior of the game object (e.g. laughter animation trigger) can be manipulated.

The following basic emotions are available in the plugin:

- SadnessDetection.cs
- BoredomDetection.cs
- AngerDetection.cs
- ExcitementDetection.cs
- RelaxationDetection.cs
- PleasantnessDetection.cs
- ControlDetection.cs
- UrgencyDetection.cs

Public Functions: The following elements can be selected through publicly available GetFunctions:

- Speaker Gender
- Speaker Emotions
- Confidence for Pleasantness, Urgency und Control
- Highest Emotion



**FURTHER QUESTIONS?
CONTACT US!**

Bernd Zeilmaier
Director Business Development

bzeilmaier@audeering.com
+49 174 6985434