



# RAGE

Realising an Applied Gaming Eco-System

## Motivation-based Adaptation Asset

T3.4D

created by TUGraz

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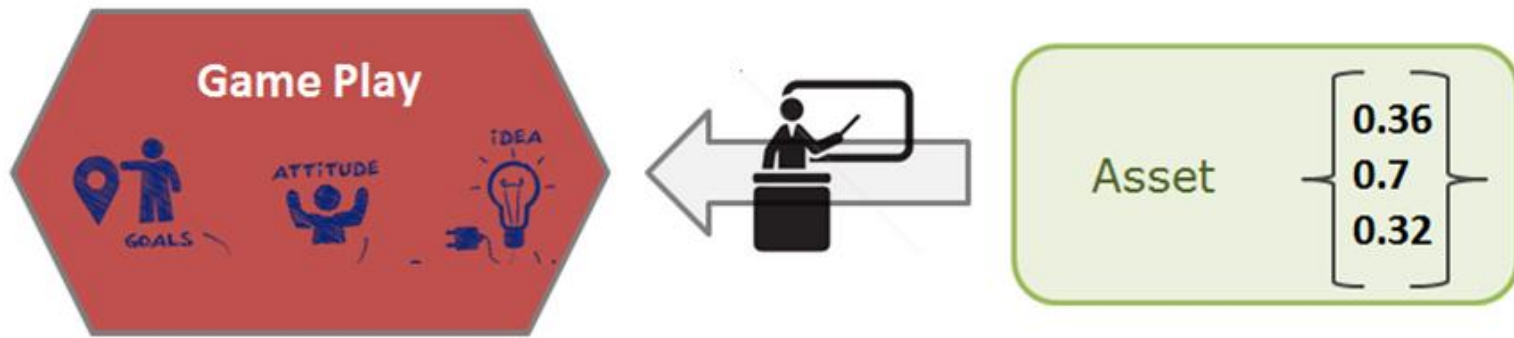


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# Idea and Pedagogical Value

- Tool for adapting a game to an individual player's current motivational state
  - Based on a menu of adaptation types and adaptation rules, motivational interventions within a game situation (e.g. encouraging feedback) are triggered.
- Pedagogical value
  - Motivation is important for achievement and the learning outcome
  - Monitoring the motivational state can be used to detect problems and provide respective interventions



# Asset Concept

- Measuring of the following motivation aspects based on behavioural indicators (from Motivation Assessment Asset)
  - Satisfaction
  - Attention
  - Confidence
- Behavioural indicators gained from game situations
  - Number help requests
  - Number approaches to a problem
  - Time to first/final approach to a problem
  - Gained Levels
- Interventions triggered based on low motivation aspect values

# Infrastructure / Context

- Implemented as Client side asset
- Loads Motivation Model from Motivation Assessment Asset
- Loads Motivational state from Motivation Assessment Asset
- Proposes intervention type and intervention instance, when appropriate

Needed/Optional Bridges	Needed/Optional Assets
ILog - optional	Motivation Assessment Asset

# Integration – Setup

- The asset needs to be created:

```
MotivationBasedAdaptionAsset mbas = MotivationBasedAdaptionAsset.Instance;
```

- Furthermore, only the underlying Assets need to be created
  - Motivation Assessment Asset

# Integration – Usage

- Request all suitable intervention type IDs:

```
List<string> interventionTypeIDs = mbas. getInterventions();
```

- Request a suitable intervention instance for an intervention type:

```
string interventionInstance = mbas. getInstance(interventionTypeIDs[0]);
```

## Why should a game developer use the Motivation Assessment Assets?

This asset allows an **easy handling of motivation within a game**

- Bringing in a psychological model of motivation into game design
- Motivational aspects and their behavioural indicators within the game can easily be defined
- Motivational interventions can be adapted without changing the game

# More Information

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- More information on these assets:
  - <http://css-kti.tugraz.at/projects/rage/assets/>
- Video Demo
  - <http://css-kti.tugraz.at/projects/rage/assets/videos/Demonstration-MotivationBasedAssets.mp4>