



FizzX: Unsynchronized Multiplayer Networked Games, Feasibility with Time Rewind

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Motivation

- ✓ Individual Time Manipulation in Multiplayer Games, is it possible?
- ✓ What is the effect of Time Rewind on playability?
- ✓ What if we have unsynchronized network games?
 - We showed that game instances can become unsynchronized due to network latency, but game playability is retained.
- ✓ Does Time Rewind maintain its ability even if the game is unsynchronized?





Releasable Video Game

- ✓ Microsoft's XNA game development framework.



- ✓ Players with Panda avatars cooperatively kill enemy “slimes” to achieve a high-score.
- ✓ Enemies spawn at a greater rate as they die, initially with 2 to a maximum of 5 slimes present at a given time. On average, 4 hits are required to kill an enemy slime.
- ✓ Environment-wide time rewind is achieved through the use of entity owners





Reference:

- ✓ S. Ratti, C. Towle, P. Proulx and S. Shirmohammadi. FizzX: Multiplayer Time Manipulation in Networked Games. *ACM/IEEE NetGames 09*, Paris, France, November 2009.





**Thanks
for
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