

# CapStudio: An Interactive Screencast for Visual Application Development

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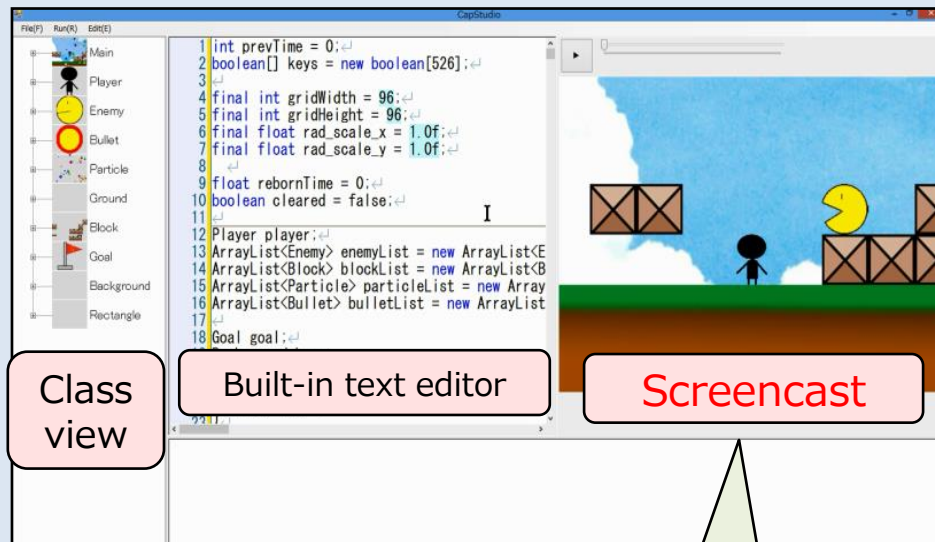
The University of Tokyo

## CapStudio IDE

A Processing IDE with an interactive *screencast*

Screencast:

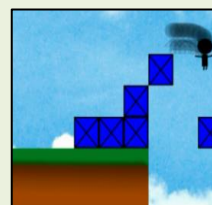
- A pseudo preview window for a game programming
- A captured output window with *Forward/Backward editing* functionalities



**3. Additional feature:** Options for supporting game programmers



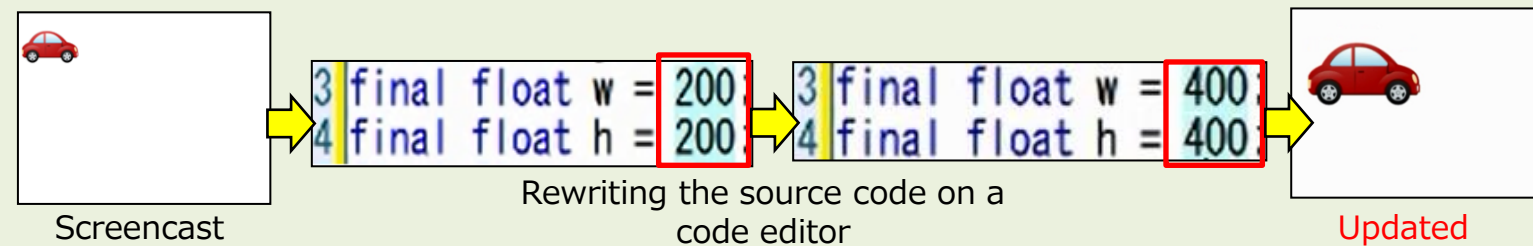
Trajectory rendering



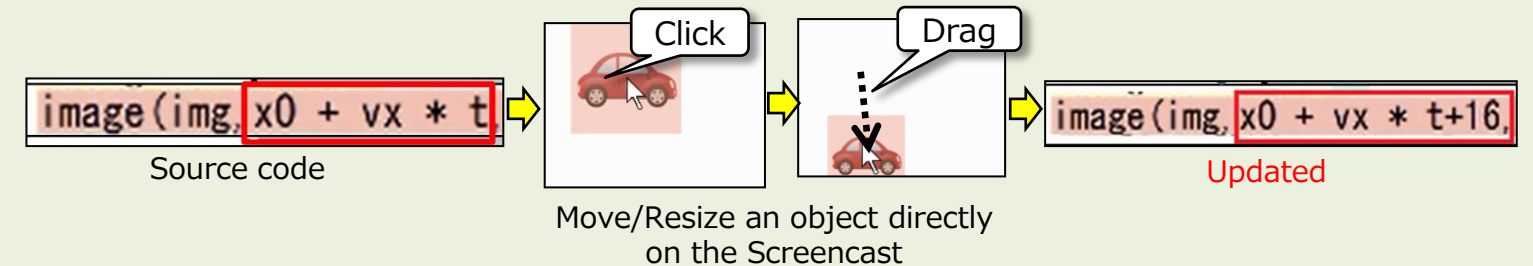
Camera shifting

## What programmers can do with Screencast

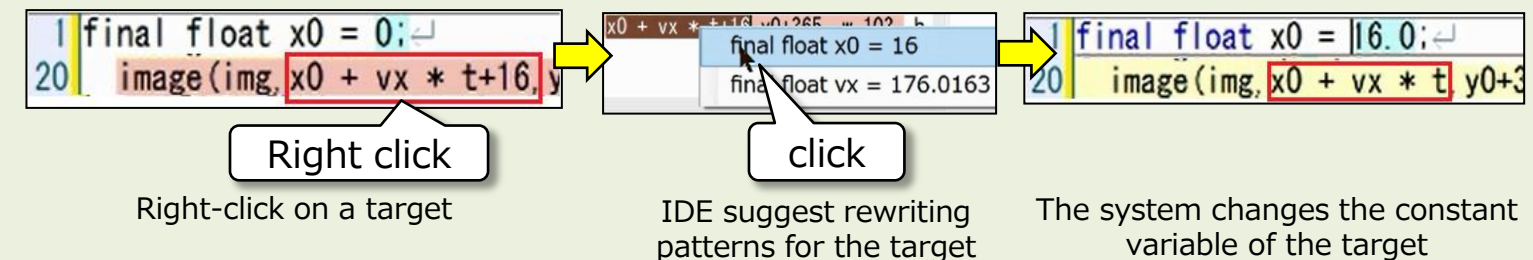
**1. Forward Editing:** CapStudio can reflect the modification in a screencast to the source code



**2. Backward Editing:** CapStudio can reflect the modification in a source code to the screencast



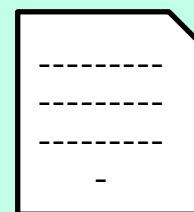
• IDE suggests the rewriting for refactoring of constant variables



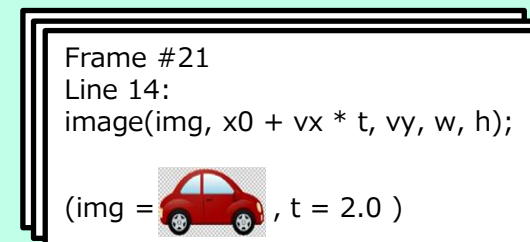
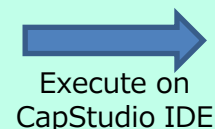
## Implementation

Recording **rendering history** of the application, not capturing the application window as a Video

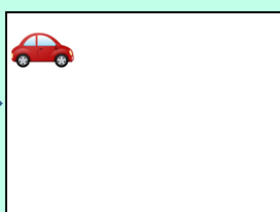
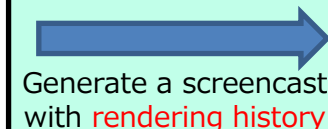
- Generate the screencast with the **rendering history**
- Use the **rendering history** for Forward/Backward editing



Source code



Record **rendering history**



Screencast