**DejaVu**: Integrated Support for Developing Interactive Camera-based Programs

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**BACKGROUND**

Camera-based programs are getting popular with affordable hardware and useful software libraries.

Current IDEs do not provide sufficient support and programmers have to test/debug programs by...
- Breakpoint, Console.Write()
- Custom visualization code

**DEJAVU**

We made an enhancement to an IDE for interactive camera-based programs.

**Distinctive Challenges**

**A)** Various visual data:

**B)** Continuous processing:

**C)** Non-reproducible input:

**CANVAS** Interface to sketch and visualize “now”

- Sketch anything to memorize what the program is doing.
- Drag and drop variables from the code editor to visualize them.

**TIMELINE** Interface to look into and replay “the history”

- See the history of data which has been shown in the canvas. (inputs, outputs, intermediate results)
- Play a new session, replay or refresh a recorded session.

**IMPLEMENTATION**

SharpDevelop (OSS IDE) + extension

1) Thin wrapper of Kinect SDK
2) Code rewrite before/after compilation

Original: double a = func();
Rewritten: double a = (Double)(IDE.track(func(),17));