InspectorWidget: a System to Analyze Users Behaviors in Their Applications

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Abstract

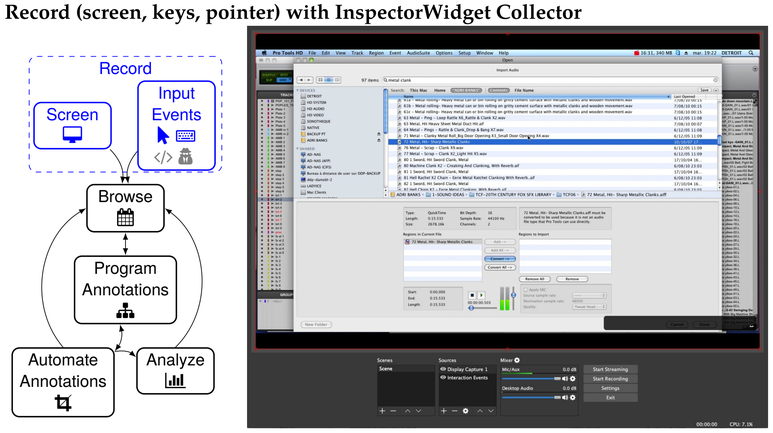
We propose InspectorWidget, an opensource application to track and analyze users' behaviors in interactive software. The key contributions of our application are:
1) it works with closed applications that do not provide source code nor scripting capabilities;
2) it covers the whole pipeline of software analysis from logging input events to visual statistics through browsing and programmable annotation;
3) it allows post-recording logging;
4) it does not require programming skills.
To achieve this, InspectorWidget combines low-level event logging (e.g. mouse and keyboard events) and high-level screen features (e.g. interface widgets) captured though computer vision techniques. InspectorWidget benefits end users, usability experts and HCI researchers.

Design Goals

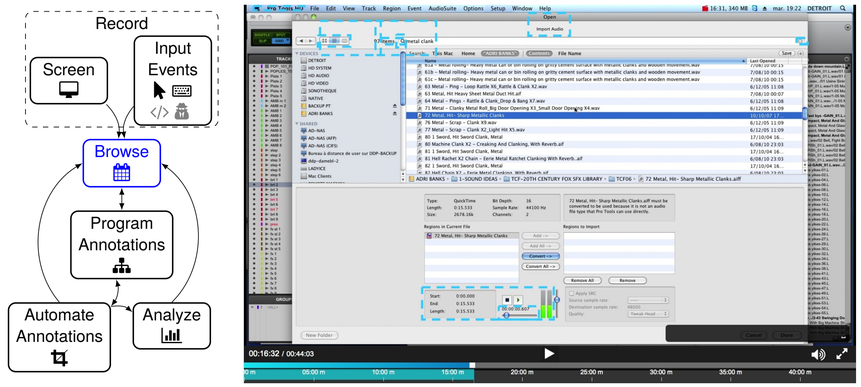
- Monitor diverse applications
- ... Collect diverse data
- ... Automate diverse annotations
- Browse collected data
- Allow iterative monitoring
- Minimize programming

System

Record (screen, keys, pointer) with InspectorWidget Collector

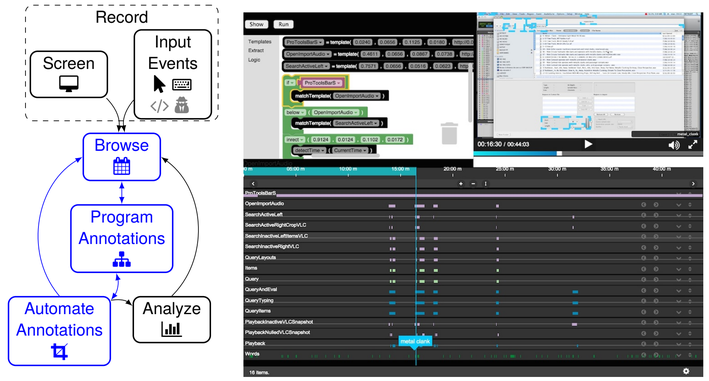


Browse with InspectorWidget Iterator

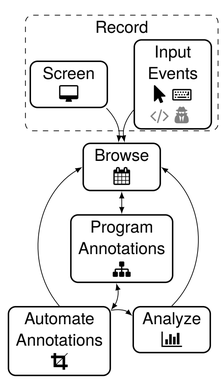


Program annotations with InspectorWidget Iterator

Iterate (browse and annotate) with InspectorWidget Iterator



Workflow



Background

Name	Monitor diverse applications	Collect diverse data	Automate diverse annotations	Browse collected data	Allow iterative monitoring	Minimize programming requirements	Platforms	Release
AppMonitor								
Delta								
TechSmith Morae 3.3								
Patina								
Prefab								
Chronicle/Screencast								
Sikuli								
Waken								
InspectorWidget								

Criteria

Data types:
- Screencast
- Keyboard
- Mouse
- Document Object Model
- Accessibility

Methods:
- Computer vision

Platforms:
- Linux
- OSX
- Windows

Distribution:
- Opensource
- Free to download
- Commercial support

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Download

`http://github.com/InspectorWidget`