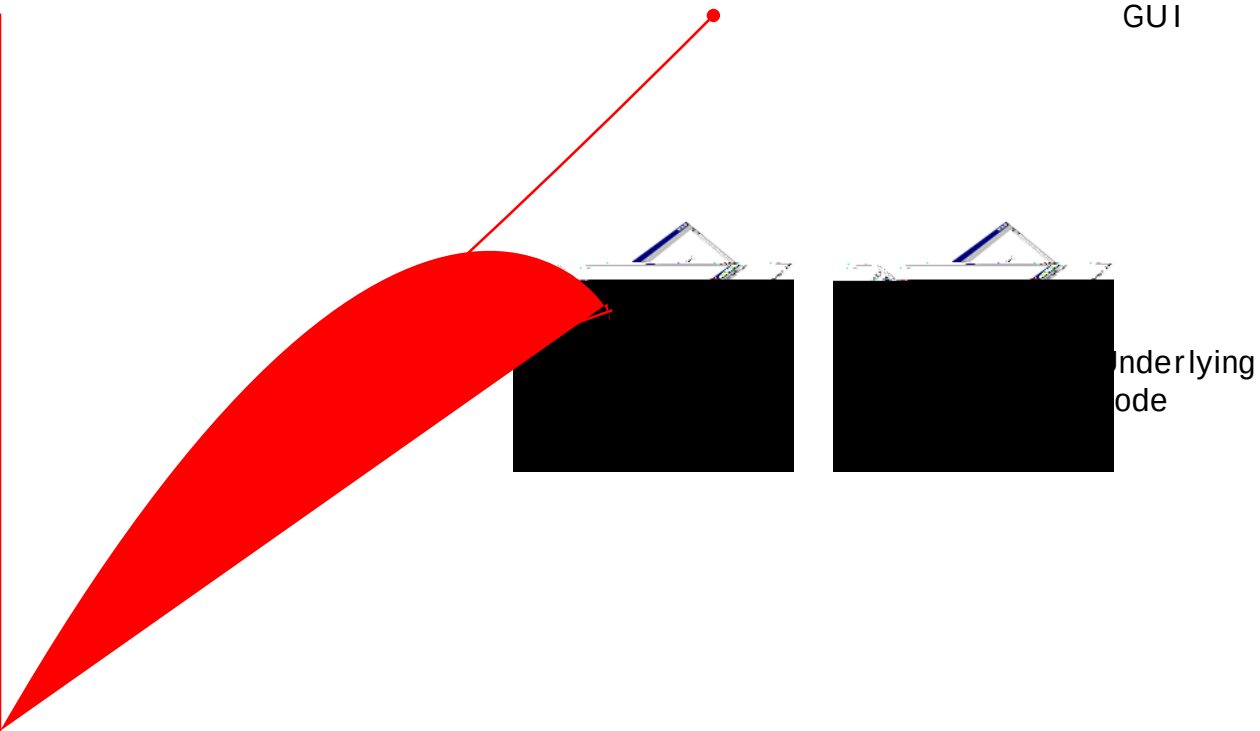
1

Plan Generation for GUI Testing

- *The 21st International Conference on Software Engineering*
- *The Fifth International Conference on Artificial Intelligence Planning and Scheduling*
- *IEEE Transactions on Software Engineering*

2



3

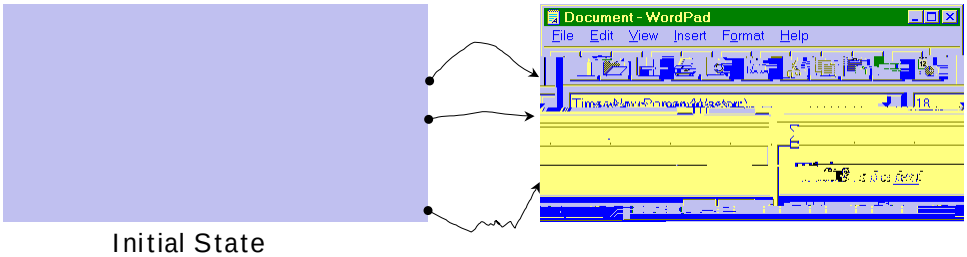
Why Planning for GUI Testing

- GUIs are Event Driven
- Individual User Events
  - NOT ENOUGH !
  - Sequences of User Events lead to Different States
- Test Case: Sequence of User Events
- How to Generate Test Cases ?
- Use Planning to Select Likely Test Cases

4

Selecting Test Sequences

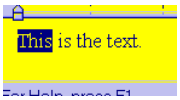
- Infinitely Many
- Randomly Choose Sequences
- Expert Chooses Sequences
- Automatically Generate Events for COMMONLY USED TASKS



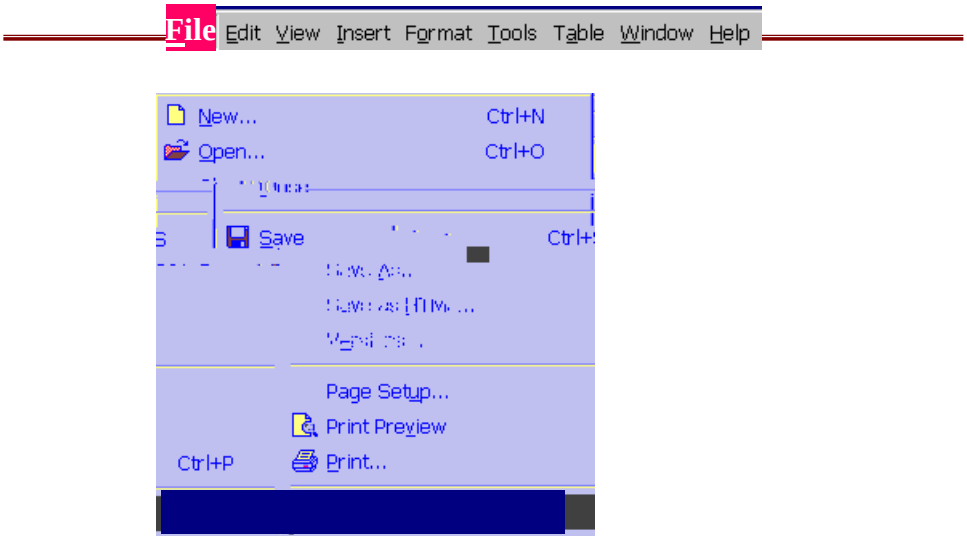
Initial State

A Plan for a GUI Task

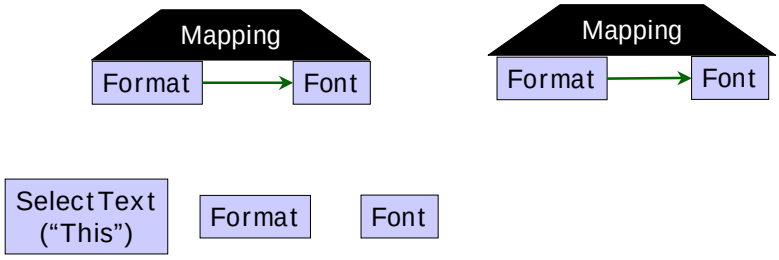
SelectText("This")



Opening Menus



Create Abstract Operators


Mapping
Format
Font
Mapping
Format
Font
Select Text ("This")
Format
Font