

## Empirical Study

(1) UI Widgets  
Comparison

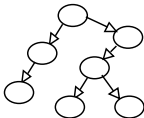
(2) Apps  
Comparison

Model  
Extraction

(3) Cross-  
validation

Analysis

## Abstract Models: Infer GUI Mappings



Processing  
component



Data



Flow



Output

### Step 1: Collect Apps

### Step 2: Execute Apps

### Step 3: Collect States and Attributes

### Step 4: Infer State-pairs Mappings

### Step 5: Output Inconsistencies

iPhone Apps

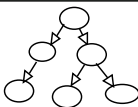


Android Apps



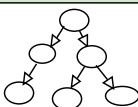
Generating Consistent  
Executable Scenarios

Output



iPhone UI  
Elements /  
Properties

Output



Android UI  
Elements /  
Properties

CAMP Checking

Heuristics

Mapping

Evaluation

List of  
Inconsistencies  
with Probabilities

Control  
Experiment