

Set-Top Box Testing Framework

Dean Laganiere, Trevor Mahoney, Teresa Worner



Innovative Systems

Issue

Set-Top Boxes are **manually tested** for regressions in new software versions

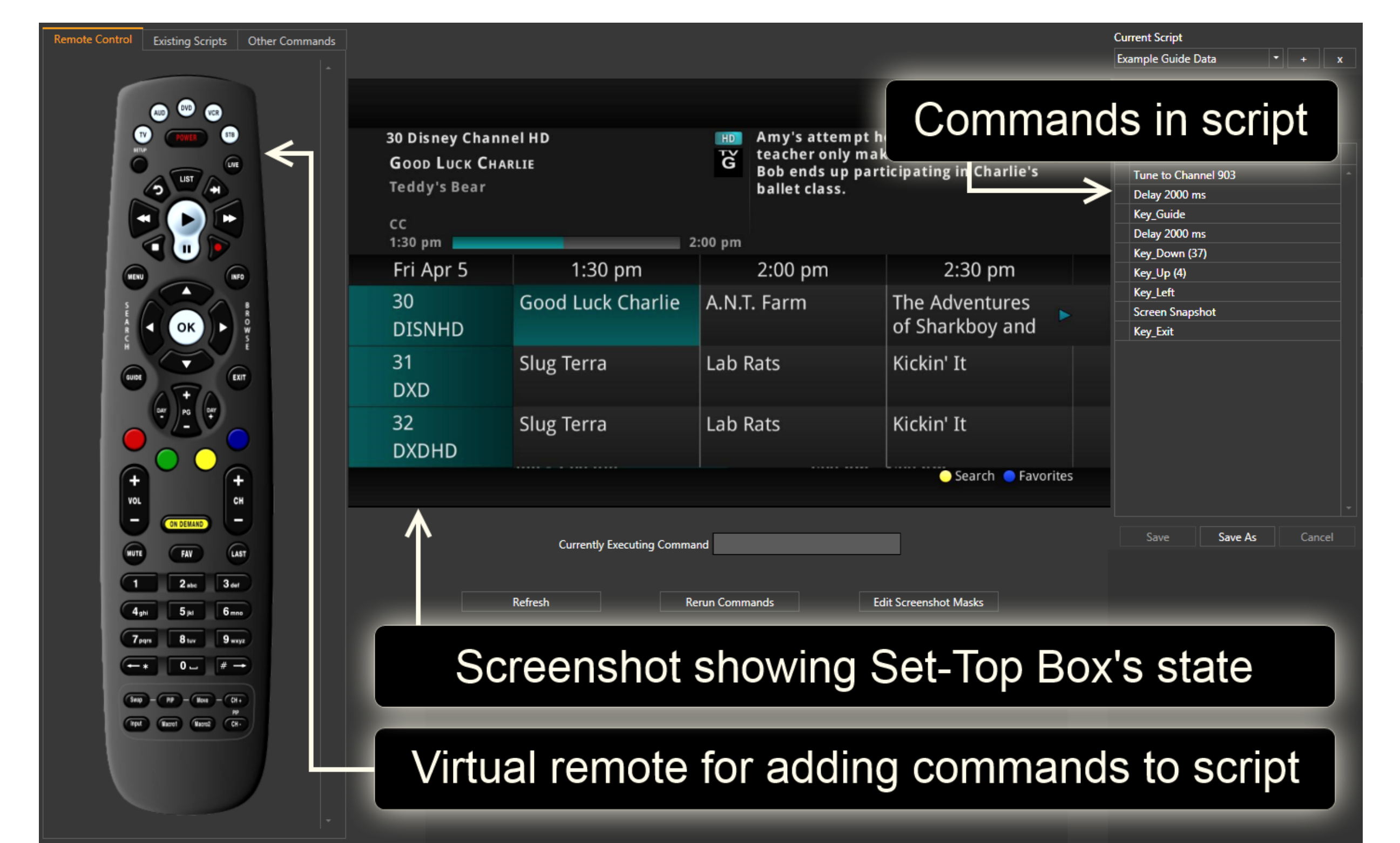
Resolution

A software framework that allows for consistent **scripted testing**

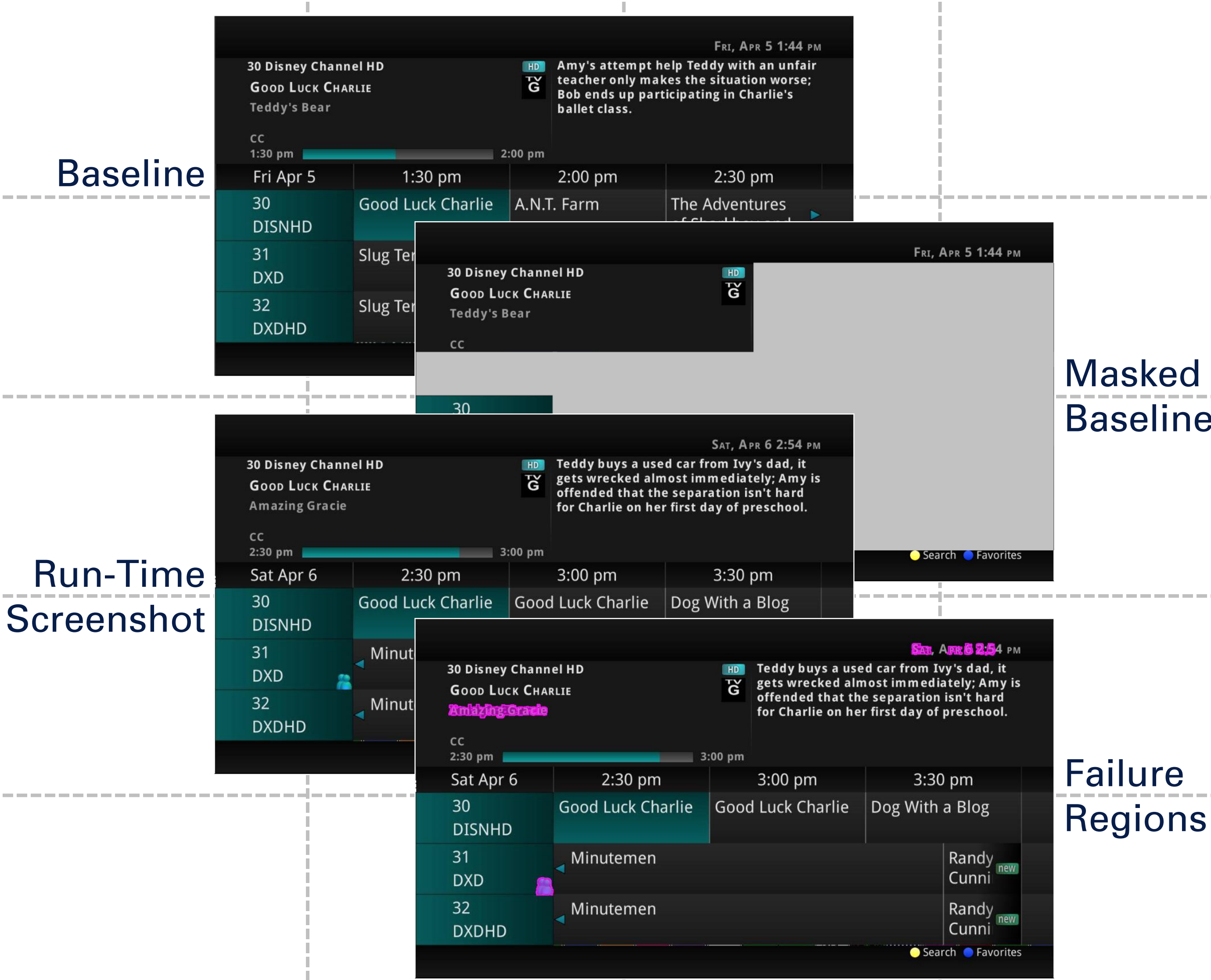


Test Setup

A script is a sequence of commands to be executed. Our **layered test setup** allows the embedding of scripts inside scripts.



Screenshot Comparison



Targeted Set-Top Boxes



Amino 140



Amino 540

Acknowledgments

Brian Butterfield
David Springhetti

Test Execution

Scripts can be run against multiple set-top boxes simultaneously to find regressions

User-Interface validation is done through **screenshot comparisons** (top right)

Masks exclude regions from comparison

Test Analysis

Icons and data summaries give the tester a **high-level view** of each test run

	Start Time	Run Name	Total Fails	Unanalyzed Fails
⚠️	3/27/2013 1:42:05 PM	t8	10	6
⚠️	1002 Basement	amino540 v35.9.36	4	0
	Ordinal	Is Analyzed	Comments	
	54	✓	Missing OK button on dialog box. --TW	
	96	✓	Failed due to dependency on previous failure. --TM	
	125	✓	Failed due to dependency on previous failure. --TM	
	136	✓	12.8 RESET. --DL	
⚠️	1001 Garage	amino140 v35.9.36	6	6
✅	3/26/2013 12:42:58 PM	t7	0	0