universität innsbruck



LiveView A Work in Progress

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What is LiveView?

CoCo 2022

| COM | | | | | |
|--|--|-----------------------|--|--|--|
| problems: solvers: conflicts: | 85 ACP ver.0.70 COM fixed CoLL 2021 CoLL1.6.1 FORT-h FORT-h+FORTify none | | | | |
| ACP ver.0.70 COM fixed YES:17 NO:40 MAYBE:2 | | score: 67.06 % | | | |
| GoLL 2021 (85 of 85): YES:26 NO:32 MAYBE:2 | 7 | score: 68.24% | | | |
| Coll1.6.1 (85 of 85): YES:26 NO:32 MAYBE:2 | 7 | score: 68.24% | | | |
| FORT-h (85 of 85): YES:17 NO:20 MAYBE:4 | 8 | score: 43.53% | | | |
| FORT-h+FORTITY (85 of YES:15 NO:16 MAYBE:5 | | score: 36.47% | | | |

| TRS | | | | |
|--|----------------------------|--|--|--|
| oroblems: solvers: conflicts: | ACP ver.0.70 TRS CONFident | r.0.70 TRS CONFident 2.0 CSI CSI 2021 Hakusan0.5 | | |
| ACP ver.0.70 TRS (100 VES:36 NO:29 MAYBE: | | score: 65.00% | | |
| CONFident 2.0 (100 of : FES:11 NO:20 MAYBE: | | score: 31.00% | | |
| DSI (100 of 100): YES:38 NO:30 MAYRE: | 12 | score: 68.00% | | |
| | | | | |
| CSI 2021 (100 of 100): YES:38 NO:30 MAYBE: | 12 | score: 68.00% | | |
| Hakusan0.5 (100 of 100 YES:18 NO:0 MAYBE:8: | | score: 18.00% | | |
| | | | | |

Overview

- visualization of the Confluence Competition
- bachelor project of Andreas Parschalk (completed 2015)
- CoCo website link 2017 (oldest data 2014)
- http://cocograph.uibk.ac.at/

Outline

- 1. Current LiveView
- 2. LiveView 2.0
- 3. Automating CoCo

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Features

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LiveView

- visualize competition run on StarExec
 - categories/tracks
 - participants
- excitement
- visualize results in real time
- highlight YES/NO conflicts
- shows last processed benchmark



Figure: CoCo 2019

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Issues

- no source!
- even small issues (almost) impossible to fix
 - renaming tools on StarExec
 - changes in the spaces
- no automation
 - testing
 - job creation
- StarExecCommand

advantage: maintained by StarExec

disvantage: maintained by StarExec (current version not working)

LiveView 2.0

Goals

- reimplement LiveView
- have most/all features of previous version
- more maintainable
- also support additional features

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Current State



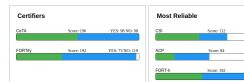
Features

- most visible features of old LiveView are implemented
- links to tables on database website
- conflicts can be viewed in detail
- support for the new certified categories

Combined Categories

CoCo 2023 - Certification Categories

- Certification rank certifiers based on number validated certificates
- Reliability rank tools based on number produced valid certificates



Implementation

- fetch data ⇒ display data
- ARI database website already does a lot of what we want

Summary

| status | AGCP | AGCP_2022 | FORT-h | FORT-h+FORTify | total |
|--------|-----------|-----------|-----------|----------------|-------|
| YES | <u>37</u> | <u>37</u> | <u>6</u> | <u>5</u> | 41 |
| (sec) | 1.68 | 1.68 | 0.13 | 2.23 | |
| NO | <u>21</u> | <u>21</u> | <u>12</u> | <u>10</u> | 22 |
| (sec) | 5.15 | 5.35 | 2.59 | 38.70 | |
| MAYBE | <u>42</u> | <u>42</u> | <u>82</u> | <u>85</u> | 88 |
| (sec) | 838.28 | 840.42 | 0.00 | 120.79 | |
| total | 100 | 100 | 100 | 100 | |

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Some Details

/?year=2023

frontend htmx

>

backend: Ruby CGI scripts

full page

new category

• produces HTML on three endpoints

/category?year=2023&name=TRS normal category

hx-swap="outerHTML"

/combined-category?year=2023&name=Certifiers

<div hx-get="category.cgi?year=2023&name=TRS"</pre>

hx-trigger="load delay:5s"

Outlook

- make prettier
- more control over StarExec job
- automate configuration

possible features

- virtual best solver
- filter view
 - only certified outputs
 - hide last years tools

What would you like to see?

Running CoCo

Setup Competition

- submission space per tool
- run tests
- extract test results

- competition space
- competition job
- not easily possible on StarExec







Figure: CSR track

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End of StarExec 2025/2026

Is it worth automating this now? I don't think so

More Important

update CoCoWeb

- possibility to use both ARI and COPS format
- maintain old tools

What would you like to see in LiveView?

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