ACT-R Updates

2023 ACT-R Workshop

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Prerelease of next version available

- http://act-r.psy.cmu.edu/next/
 - 7.27.9
- Will become current version early August

7.27.8

- More retrieval request parameters
 - All of the mechanisms can be adjusted within a request

```
+retrieval>
  :mp-value    temp-:mp
  :rt-value    temp-:rt
  :bll-value    temp-:bll
  :mas-value    temp-:mas
  :ans-value    temp-:ans
```

7.27.9

- Added the reusable-buffer-p command
 - Check if a buffer is using the same chunk every time
 - Can be useful for modules to check if chunk names are being recorded

Other updates

Error handling around all calculations using exp and log

There are test models for all of the extras

 The save-model extra now has hooks to write additional information into the model definition

Tutorial Lisp tasks updated to avoid warnings in SBCL

Bug fixes

- Production compilation wasn't always unifying all variables
 - Catches all the dynamics when appropriate now

```
(P PRODUCTION0
"bad"

=GOAL>

=S =VAL

STATE =S

=S0 =VAL0

STATE =S0

==>
)
```

- Visual-location requests specifying a value of current when the attention shift was made with a "non-visual" chunk sometimes failed
 - Always maps current request to the actual visual feature now

Mac Software updates

- The standalone Mac software has a startup script to clear all of the quarantine flags
- Added an Environment application built for Apple silicon
 - Built with the Tcl/Tk in Python
- There's an Apple silicon version of the ACT-R app in the standalone
 - Built with SBCL
- The running scripts pick the correct version(s) to run
 - run-mac-environment.command
 - All of the standalone scripts (both versions are included)

Discussion Questions

Should all of the standalones be built with SBCL?

Should there be separate downloads for the Mac standalones?

- Does anyone use the Docker container version?
 - The Dockerfile doesn't build correctly now, but the cached container works