2024 Medley Project Ideas

** BEING REVISED**

Website "Get Involved" page update? · Issue #1431 · Interlisp/medley (github.com)

These project ideas are mainly for people who

- don't necessarily know Interlisp or Lisp (unless noted)
- need a project they can take up and finish in a month or three (or twelve)
- need a clear metric of success
- aren't looking for full-time employment

We're interested in encouraging student projects to help with the goals of the Medley Interlisp project – to build a sustainable body of code and documentation and experimentation. The result could be a paper, study, video, software enhancement or other interesting deliverables.

- Case Study: Write up the Medley project as a case study in a particular kind of software preservation: Porting, software cloning, as part of a larger context of legacy software preservation.
- Blbliography: for Interlisp, for Lisp, for Lisp Machines, for software environments
 developed at Xerox PARC. Following the SPN-produced Guidelines for Metadata,
 produce records that link the documents to the software being described. We have
 started down this path collecting documents but need to improve our collection
 methodology.
- Courseware: Using Medley, LOOPS, or other components, including the CHM-PARC backup archives, EaaSi and (the Internet Archive's) MAME, build a module of instruction that had the students using Medley as one data point in the "History of Computing" modules for self-discovery, e.g., a "History of HyperText" "History of Object Oriented Programming" "History of Scrollbars" "History of Cut/Copy/Paste".
- **Museum ware:** An interactive exhibit using the Medley environment Software exhibits for computer museums
- **Videos:** produce some videos about Medley, introducing the environment, talking about various points.
- **GitHub integration:** Using our GITFNS as a starting point, build a reliable Interlisp / FILEPKG integration.

Although many don't require Interlisp skills, they do require skills. And there are other things we want done, but these require more discussion and probably a longer-term commitment.

These projects should be high priority for the following Medley project goals:

- Remove barriers to entry so that newcomers can use it without too much agony
- Fix egregious bugs, especially of things that used to work
- Lead in "software preservation" by documenting our work

Project segment (one demo, one video etc.) should budget in the \$400-\$2000 range. Free (volunteer) is better.

The Medley Interlisp project is Open Source. Contributions are expected to follow or assign copyright to Interlisp.org

These are just ideas — substantial discussion will be necessary to insure mutual understanding.

The kind of candidates we're seeking include

- Student interns (senior CS majors, grad students, librarians, archivists, with professor mentors)
- Contractors (on UpWork.com or similar)
- Volunteers

For a longer list of smaller things we need help with, see the <u>Medley Repo Issue list</u>, especially those with "help wanted" tags.

Videos

Videos are good for introductions, and a way of overcoming some of the difficulties newcomers have. (In many cases it would be better to fix the code so that things work more smoothly, but...)

- Produce videos using consultants and/or sponsor
- Videos point to documentation but don't remove the need for written documentation;
 Video production should include noting corresponding documentation that is out-of-date, incomplete, incorrect or simply missing
- Categories of videos:
 - History (who did what when and what else was going on)
 - About the project (what we've done, are doing, want to do)
 - How to run and use Medley, demos of various features
 - Architecture of Medley
 - o Medley as an example of "software preservation"

Documentation

- UI design for online.interlisp.org this isn't quite documentation but needs to integrate with it. Perhaps with some walkthroughs of running demos?
- Papers, presentations on Medley Interlisp project (a mini-documentary?)

Demonstrations

These projects require Interlisp skills; using the DEMO package or a successor would help. Check against Medley Primer

• ; add sample programs that demonstrate efficiently repainting damaged portions of windows, one for a window displaying mostly graphics (points, lines, shapes), and one for a window with textual information (headings with different fonts, text paragraphs).

Online Older Interlisp Versions

These projects will allow us to provide a true "emulation" of previous versions of Interlisp, for those who want to establish historical record, available through online.interlisp.org with 0 install.

- Using DarkStar (Dandelion emulator) get older versions of D-machine Interlisp to run under online.interlisp.org.
- Using a Tops-20/TWENEX or TENEX emulator, get Interlisp-10 to work as well.
- Using PUP and IFS emulator with CHM Parc archives, get emulation of PARC network environment to work.
- Using XNS and DoDo networking, set up file sharing site init
- Using DosBox and Medley 2.01, set up Medley 2.01 under DOS

More Modernization

- Regularize and establish modern key bindings
- Mouse cursor feedback on which things move, resize when clicked
- Bigger fonts in common sizes to make prettier display than you get with pixel scaling

Testing

These projects require Lisp skills:

- Regression testing: set up the Medley test infrastructure (Interlisp/test repo). Add tests for testing bug fixes possibly introduced during 2020's. (Requires Interlisp skills)
- Test Against "Practical Common Lisp" (Can Medley be used to learn Common Lisp using a popular book).

Other coding projects

These are listed, but don't fit the criteria without more scoping

- ANSI Common Lisp conformance
- Networking stack that implements the same networking API Medley had back in the day (any supersets welcome).

- Fix LOOPS.
- Review Interlisp features vs. Common Lisp's ASDF and Quicklisp to Medley.

Administration

Help with non-programmer parts of project::

- Github project management: acknowledge contributors, insure responses, good public open source project etiquette.
- Manage meeting agendas, notes, recordings
- Manage YouTube channel
- Project Legal (copyright assignment by contributors; source file copyright), Accounting (enter expenses into ledger)
- Fundraising, including Google Summer of Code, Season of Docs,
 - Google Summer of Code: Google pays for coding work on open source projects https://summerofcode.withgoogle.com
 - Google Season of Docs: same as Google Summer of Code but for documentation https://developers.google.com/season-of-docs

Started with text from Google Bard:

There are many ways that volunteers can help with the Medley Interlisp project. Here are a few ideas:

Documentation: There are gaps in our documentation. We have "user guides" that were written in the 1980's that need updating or at least checking to see if they're still valid. We have some introductory videos but they need review and likely updating as the topics covered are often under development



Testing: Volunteers could help to test features and report bugs. We should establish a system of regression testing: making sure bug-fixes stay fixed. This winds up testing areas that are undergoing development more broadly.

Community outreach: The Medley Interlisp project needs to be promoted to potential users. Volunteers could help to create blog posts, give presentations, or participate in online forums.

Development: Experienced programmers can help to develop new features for the Medley Interlisp project.

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