UCSD EaaSI Statement of Importance

Please provide 250 words that address the following:
- Why is software preservation important?
- What are the advantages to community infrastructure or approaching software preservation and emulation as a collective action problem?
- What are your strongest use cases for emulation?
- What are you hoping to learn through your participation in the EaaSI Network?

The UCSD Library's Research Data Curation program has been working with UCSD researchers for over half a decade to curate and preserve research data produced by our campus. Our large and quickly-growing collection contains unique, non-standard data file formats as well as software created or used to generate scientific findings. If data file formats are not interpretable by commonly available software, it becomes necessary to use the software which originally generated the data in order to access it. Likewise, if software is created to produce research findings, that software also warrants preservation to ensure the scientific reproducibility of the research we're preserving. As software environments morph over time, it becomes necessary to capture the original computing environment which produced the data. Therefore, emulation becomes an essential tool in not only accessing data generated in certain environments but also reproducing scientific results years after the original studies have been completed.

Even though much of the data and software are idiosyncratic, good preservation solutions are not. Only by working within a community can we leverage the wide range of expertise needed to address digital preservation issues. Only within a community-based process can we look at a range of technological solutions as well as begin to surface solutions that span across multiple domain needs. This is why we are excited to participate in the EaaSI Network, which represents a logical next step in the digital preservation process.