Plan:

Christophe (primary): making the VM liquid, eventually exporting available versions of liquid sources, and reading a table of rows each of which specifies versions of each source to try, then execute in a frozen virtual machine and report back results. When executing a frozen virtual machine, use Reprozip again to return to Sarah a graph of dependencies (and maybe the order in which they occur) so that Sarah can try to figure out some root causes that make one execution work and another fail.

Dennis (primary): query language and eventually compiler for that query language.

Sarah (primary): graph analysis to determine why a particular set of rows (particular combinations of versions) did not execute correctly.

VM liquid:

Graph of dependencies.

Different software: S1’, S2’, … and data D1’, D2”,

Machine M2 and OS O2

Reprozip

Reprozip

Preparation Step

VM frozen:

Graph of dependencies.

The same software with different data D1’, D2’

Machine M2 and OS O2

Original execution some analysis program P on data D1, … Dk and software S1… Sj