This directory contains the main subprojects of Sample:

* /sample: the core of sample, that is, all the statements of the Simple language and their semantics, some basic implementation of the abstract states, and all the interfaces for heap and semantic analyses;
* /AccessPermissionInferece: the implementation of the static analysis and the inference of access permissions;
* /ArrayAnalysis: some basic interfaces for the analysis of the content of arrays. It has been developed for the project assigned to students in Venice for AVP 2010/11;
* /HeapAnalysis: simple heap analyses that can be used in combination with other analyses for whom the heap structure is not particularly critical;
* /NumericalAnalysis: numerical analyses both non-relational (sign and intervals, together with a generic interface that can be used to develop other non-relational numerical domains) and relational (and in particular apron - <http://apron.cri.ensmp.fr/library/>);
* /TypeAnalysis: a particular type analysis for proving some particular properties on pattern matching (see FORTE/FMOODS 2010);
* /UserInterfaces: the user interfaces – TODO : each project should call some standard interfaces in sample by its own and combines it with the preprocessing of the language we are interested in
* /ScalaPreprocessing: the preprocessing of Scala to translate them into Simples.

The dependencies between different projects and the external libraries of each subproject follow.

|  |  |  |
| --- | --- | --- |
| Subproject | Dependencies | External libraries |
| sample | /////////// | /////////// |
| AccessPermissionInference | sample  HeapAnalysis | lpsolve.jar  <http://lpsolve.sourceforge.net/> |
| ArrayAnalysis | sample  NumericalAnalysis | /////////// |
| HeapAnalysis | sample | jgraphx.jar  <http://www.jgraph.com/> |
| NumericalAnalysis | sample | apron.jar  gmp.jar  <http://apron.cri.ensmp.fr/library/> |
| ScalaPreprocessing | sample | scala-compiler.jar |
| TypeAnalysis | sample | /////////// |
| UserInterfaces | *ALL subprojects* | /////////// |