Language Extensions

1. What is the goal? Language extensions in the form of:
   - extensions that translate to Alloy
   - extensions that are go beyond a translation to Alloy (probabilistic, fuzzy logic, temporal logic, arithmetic)
   - orchestrating analysis in Alloy
   - Alloy as an intermediate language
2. Why isn't this already done and what are the challenges?
   - code base wasn't built as an extensible system
3. What are the promising approaches?
   - Java APIs
   - meta-languages such as Rosette for using Racket
   - language/semantic engineering frameworks

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4. What are the potential risks and costs?
   - Java APIs will help for smaller extensions, but don't help much for new backends
   - language engineering frameworks enable more extensibility but start-up cost is high
5. What are the success criteria?
   - extensions become independent of current code
   - e.g., Electrum, DynAlloy as independent jars
6. What are the concrete action items?
   - Peter: Java API + javadoc docm to maven central
   - Perhaps make an independent jar of Electrum
   - Nancy: syntax of Alloy in xText is available