To DO and DONE list

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DONE

1. (Prototype) Implementation of $ncPost_\ell$ and $UPost_\ell$ for PHAVer Scenario (LHA)
2. (Prototype) Tool for translating Simulink into SpaceEx (SL2SX)
3. Theoretical results for Urgency on AHA
4. Theoretical results for Relaxed HA
5. Way for improving accuracy of approximative reachability on AHA (by invariant split)

To Do List/1 (SpaceEx Engine Side)

1. Definitive and Efficient implementation of $ncPost_\ell$ and $UPost_\ell$ for LHA
2. Implementation of $ncPost_\ell$ and $UPost_\ell$ for AHA
3. Implementation of the "splitting invariant" techniques for improving accuracy
4. Implementation of Relaxed Semantics
5. Study NON-LINEAR invariants
6. Allowing components with same name in different networks
7. Reduce VARS to CONST when it is possible
8. Allow Arithmetical Expressions (for example a constant a could be linked with something like $a = c + b$)

To Do List/2 (SL2SX Side)

1. Graphical Interface
2. Read MATLAB .m file
3. Derive automatically the initial states
4. Write automatically the .cfg file (SX configuration file)
5. Integration between SL2SX and tools for linearitazion

To Do List/3 (SpaceEx Editor Side)

1. Add "Import From Simulink" (Under *Experimental Features*)
2. Add fields for Δ and ϵ Relaxation
3. Wireless Connections
4. Different Colors for Connections
5. Hide/Show Variables Name
6. Show three of the hierarchy

Future Works

1. Effective Implementation of Strategy by using Urgency (Game LHA)
2. Formula 1 strategy analysis
3. Translation from Modelica into SpaceEx
4. Automatic test-case generation “Guards-guided”