

Copilot : Traceability and Verification of a Low Level Automatically Generated C Source Code

Georges-Axel Jaloyan

École Normale Supérieure, NASA Langley Research center, National Institute of Aerospace

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1 Preliminaries

2 Conclusion



Copilot language

Copilot is an *EDSL* (embedded domain specific language), embedded in *Haskell* and used for writing *runtime monitors* for hard real-time, distributed, reactive systems written in C.

A Copilot program, can either be :

- compiled to C using two back-ends : SBV, ATOM
- interpreted
- analyzed using static analysis tools (CBMC, Kind)



Copilot syntax

A program is a list of streams that can be either external or internal which are defined by mutually recursive stream equations.

Each stream has a type which can be Bool, Int8, Int16, Int32, Int64, Word8, Word16, Word32, Word64, Float, Double.

Questions

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