HiFrog: Interpolation-based Software Verification using Theory Refinement

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What is HiFrog?

- An SMT-based bounded model checker for C

- Computes and reuses Function Summaries
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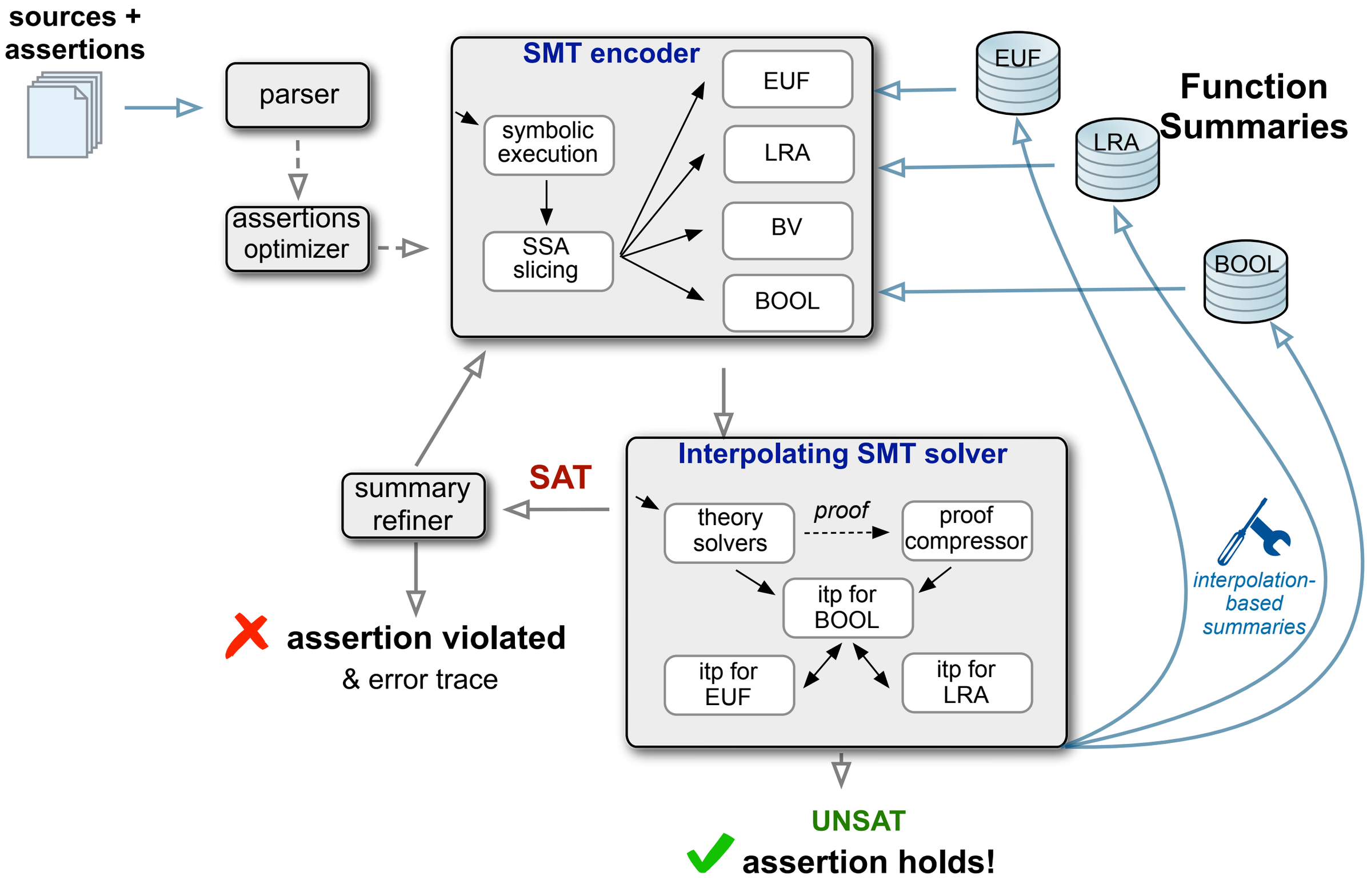
- **Automatic adjustment of abstraction using different theories**
  - **Theory Refinement**

HiFrog and Function Summarization



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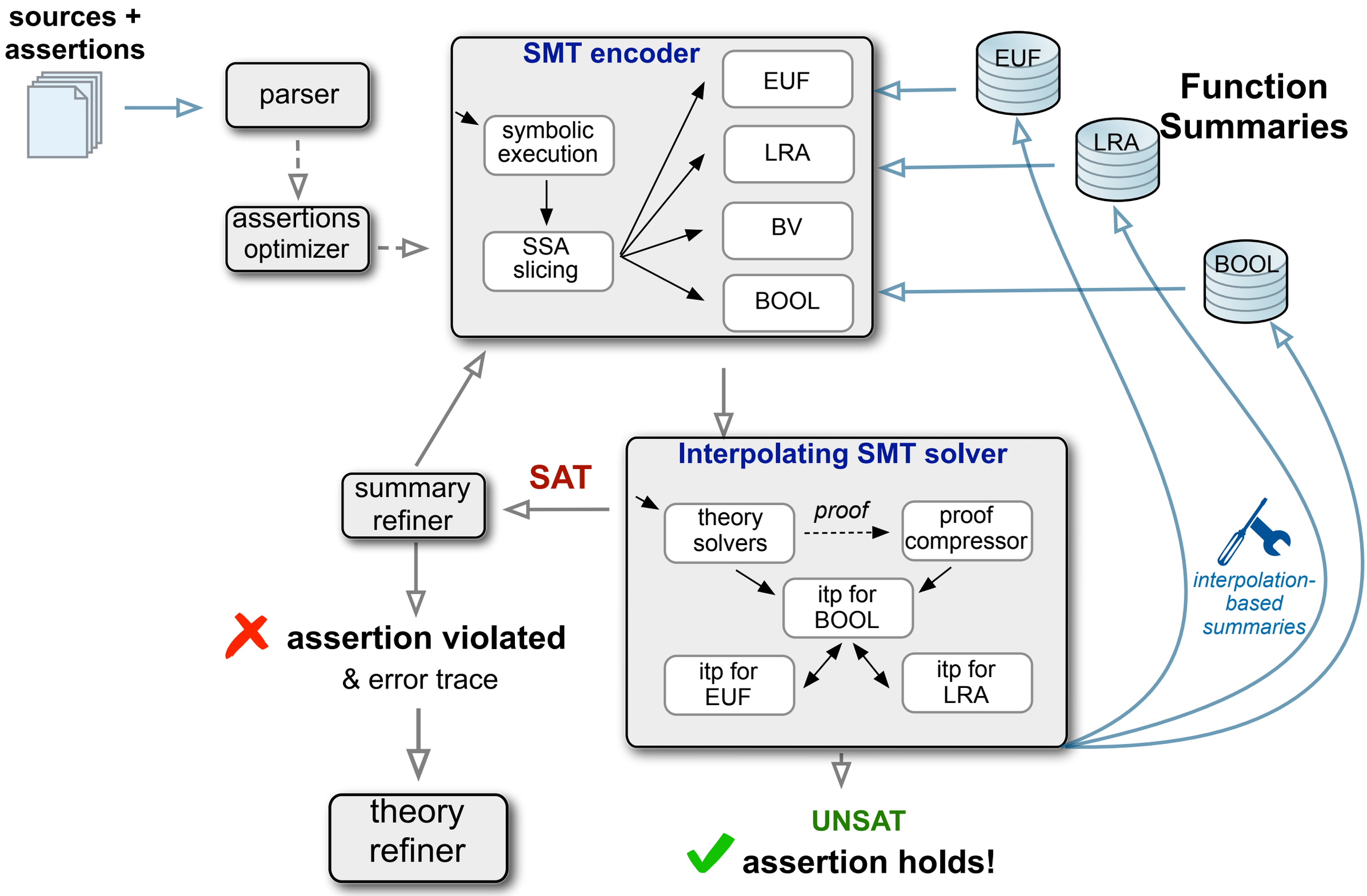
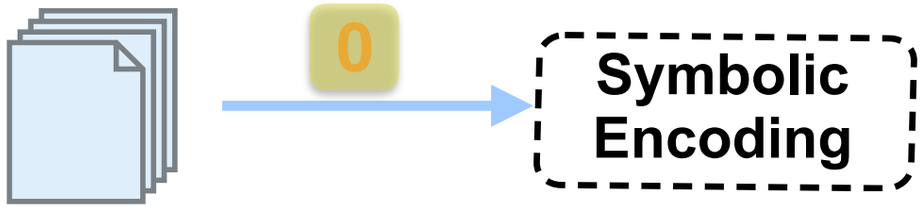


HiFrog and Theory Refinement

Università della Svizzera italiana

HiFrog and Theory Refinement

Program +
Assertions



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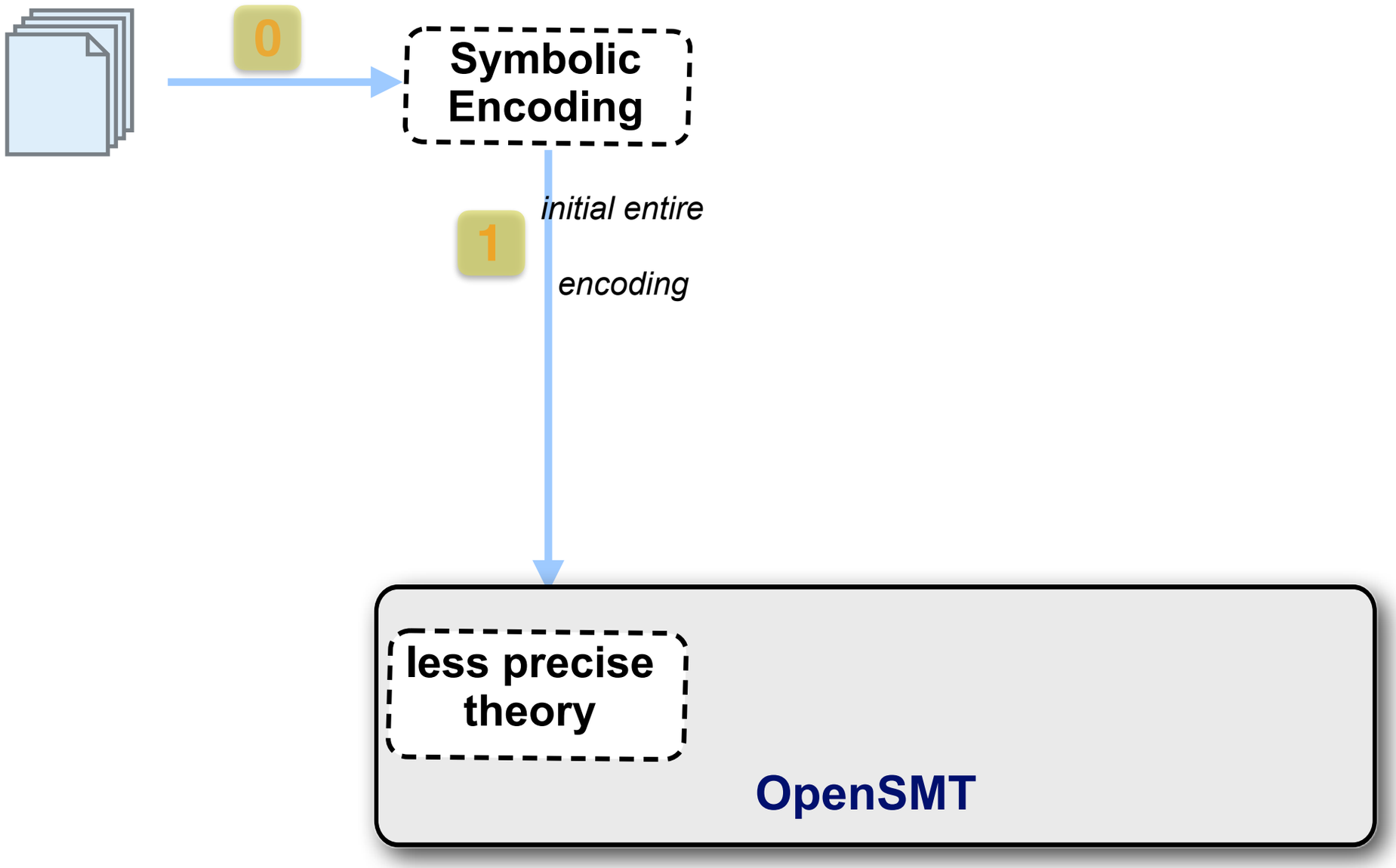

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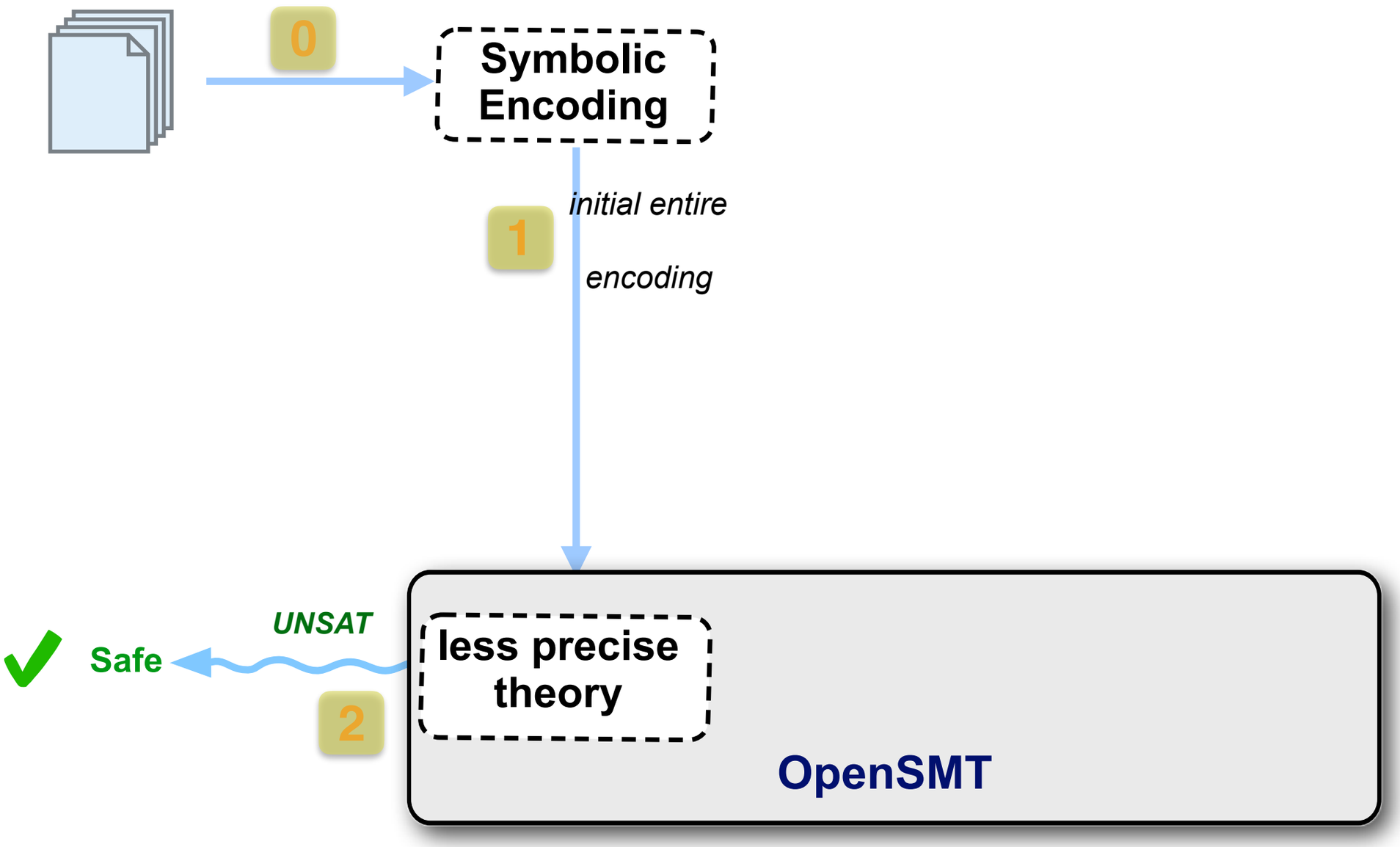

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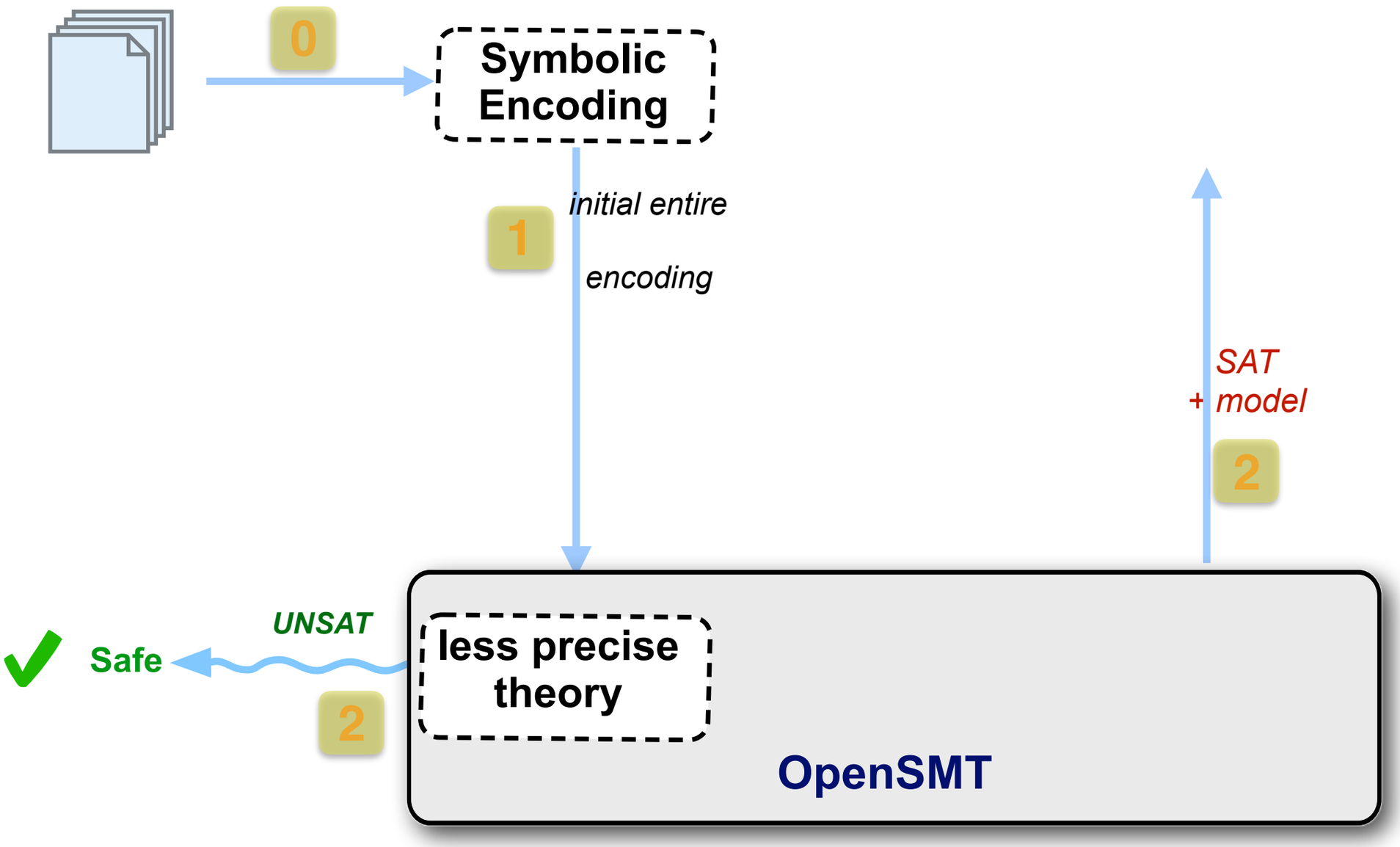

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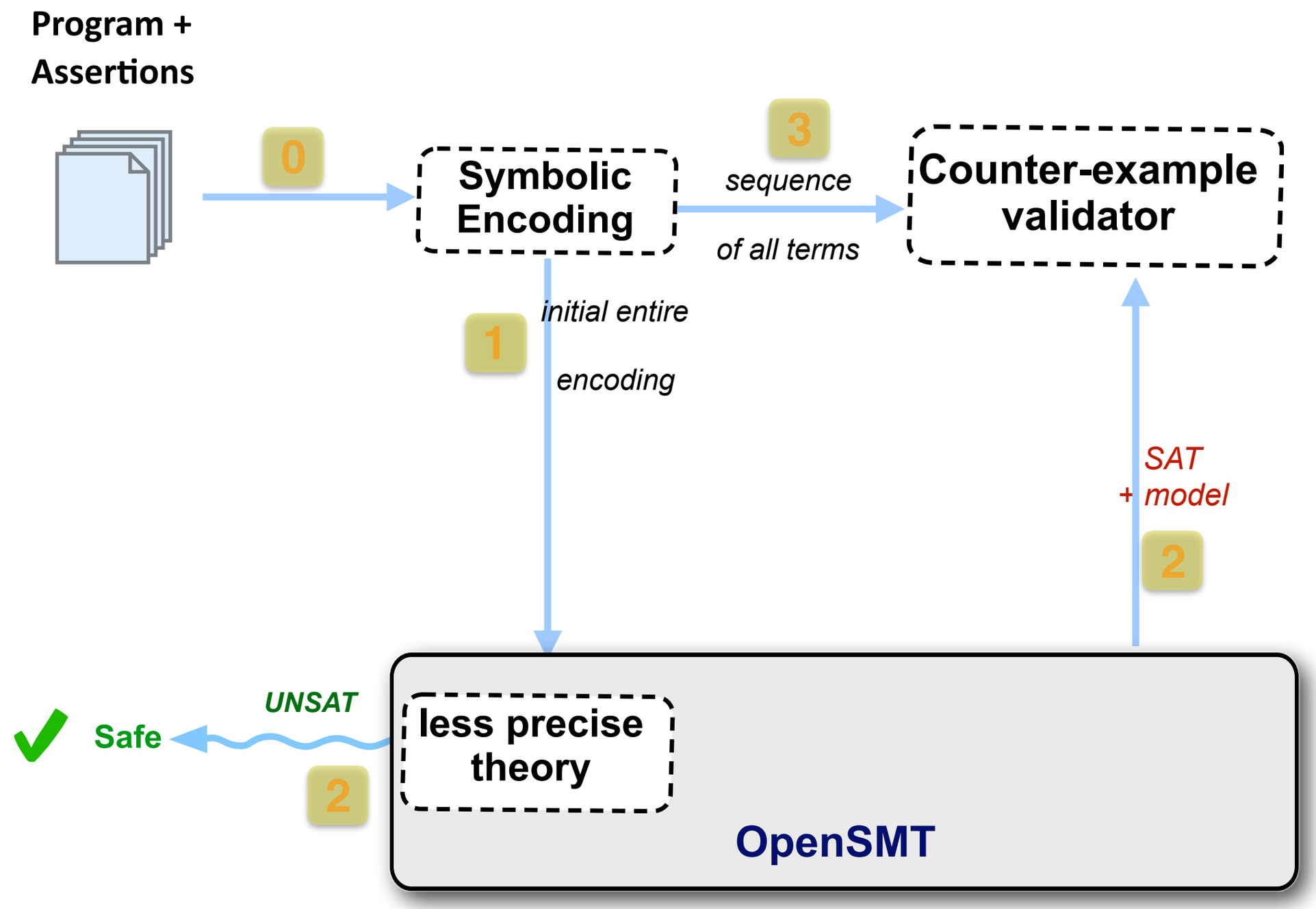

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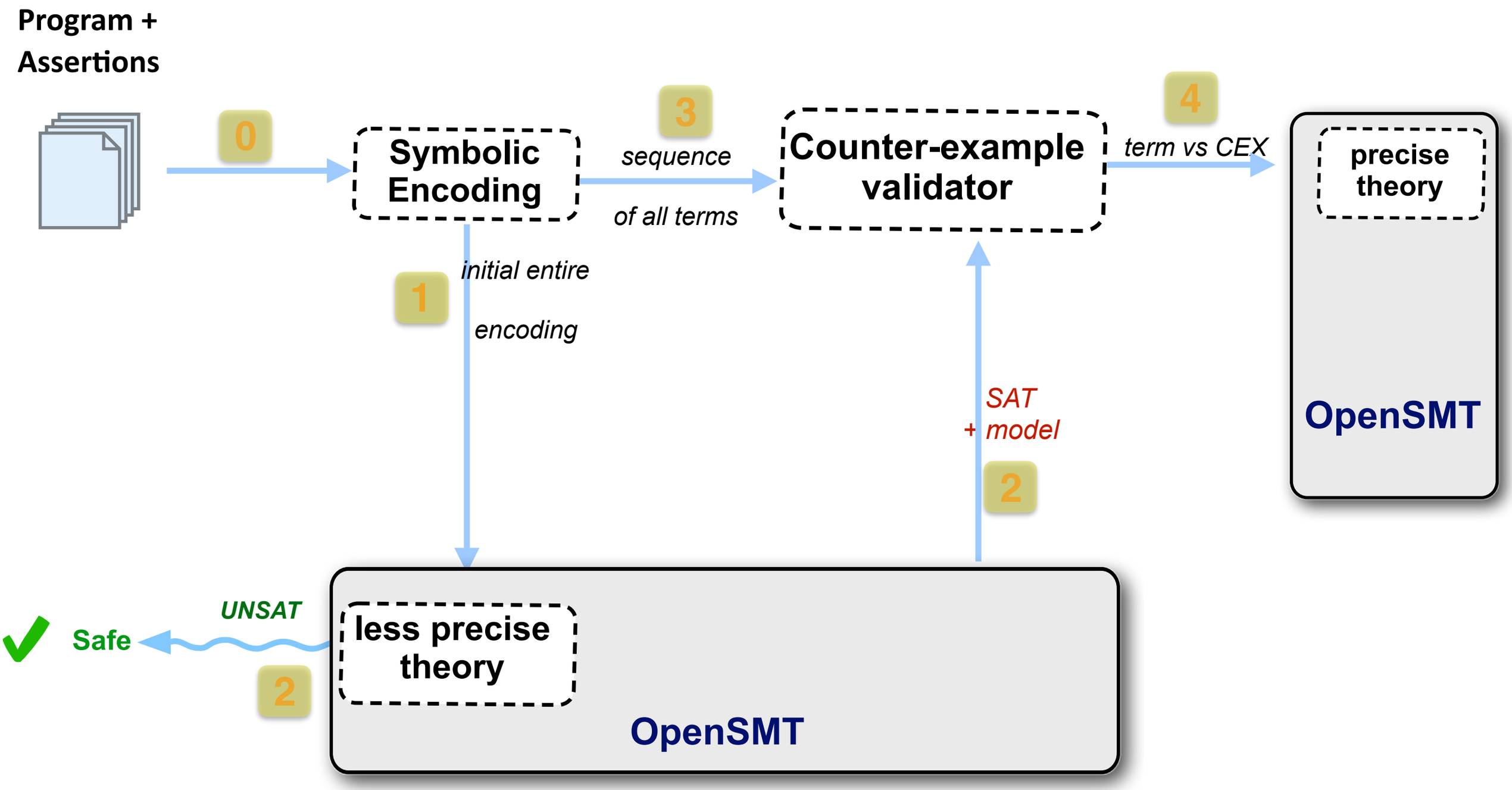

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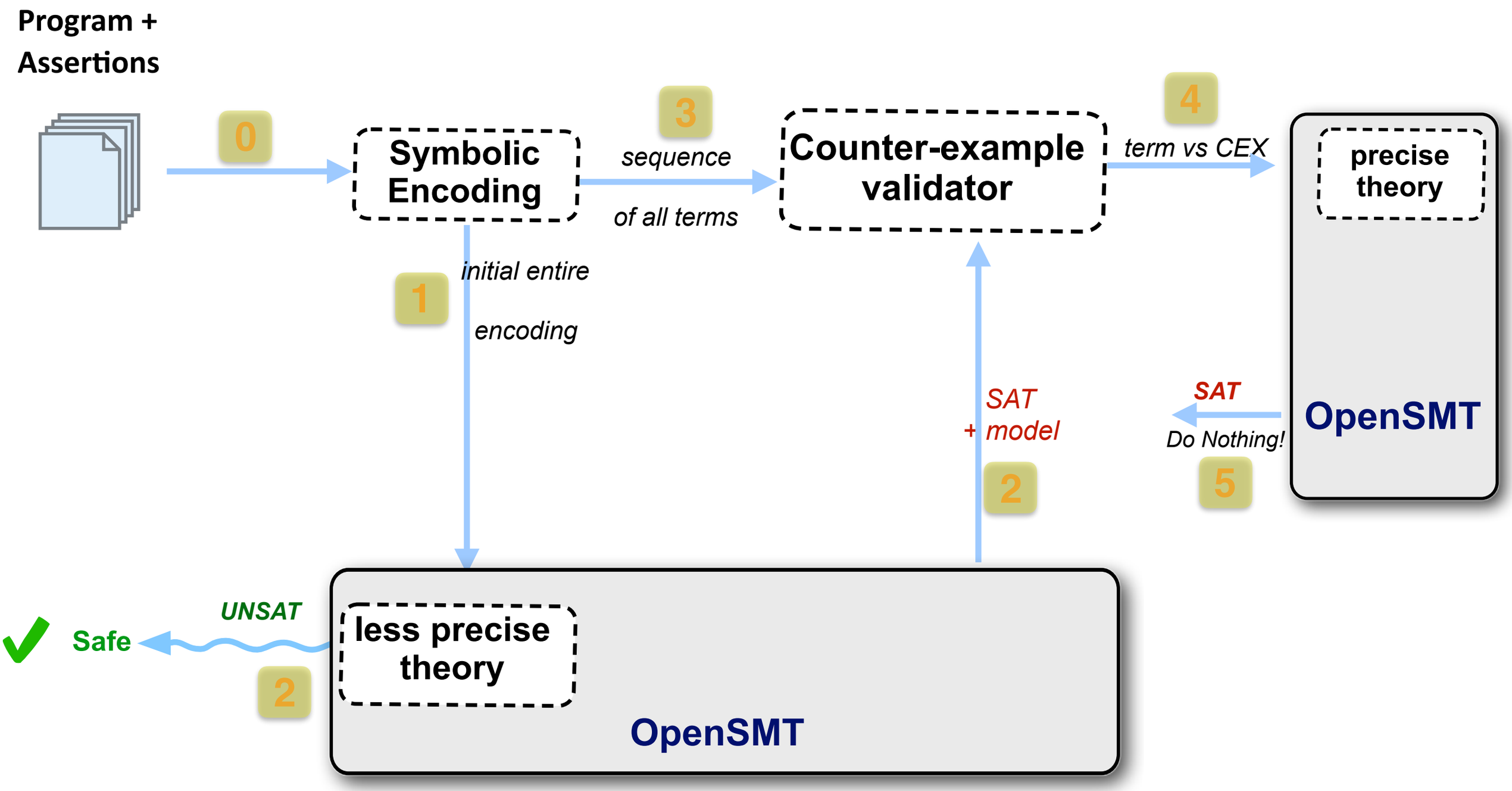

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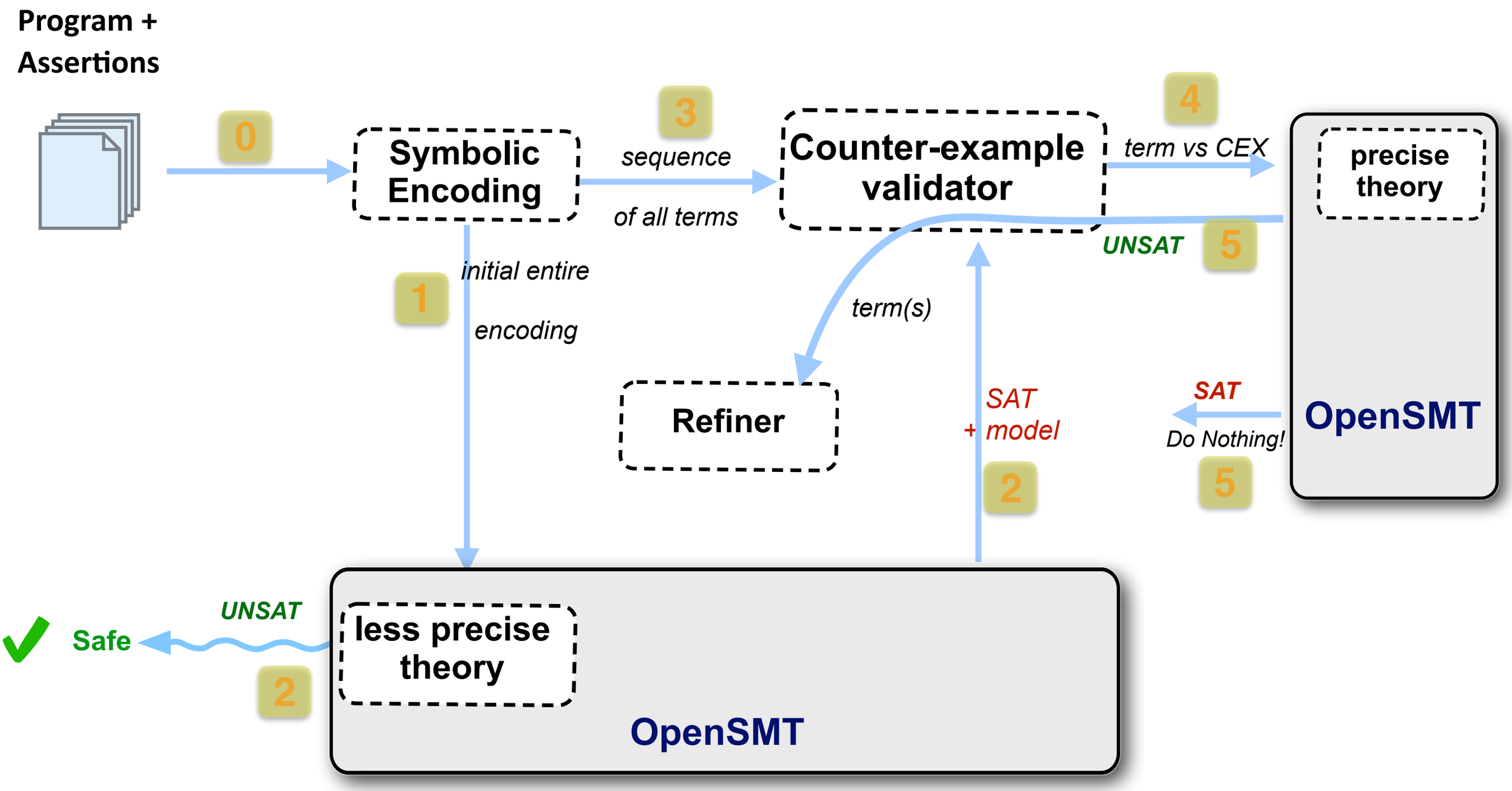

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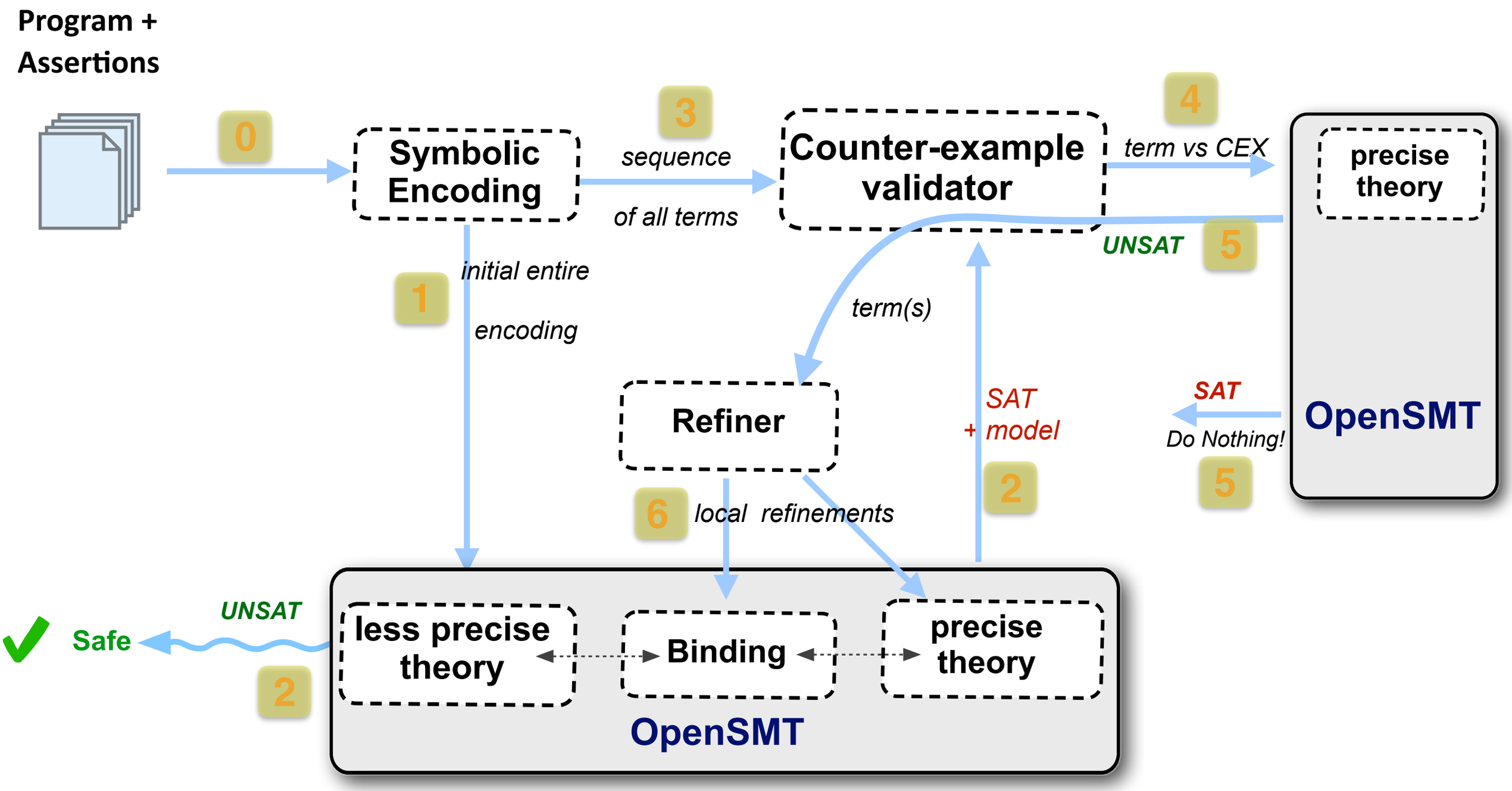

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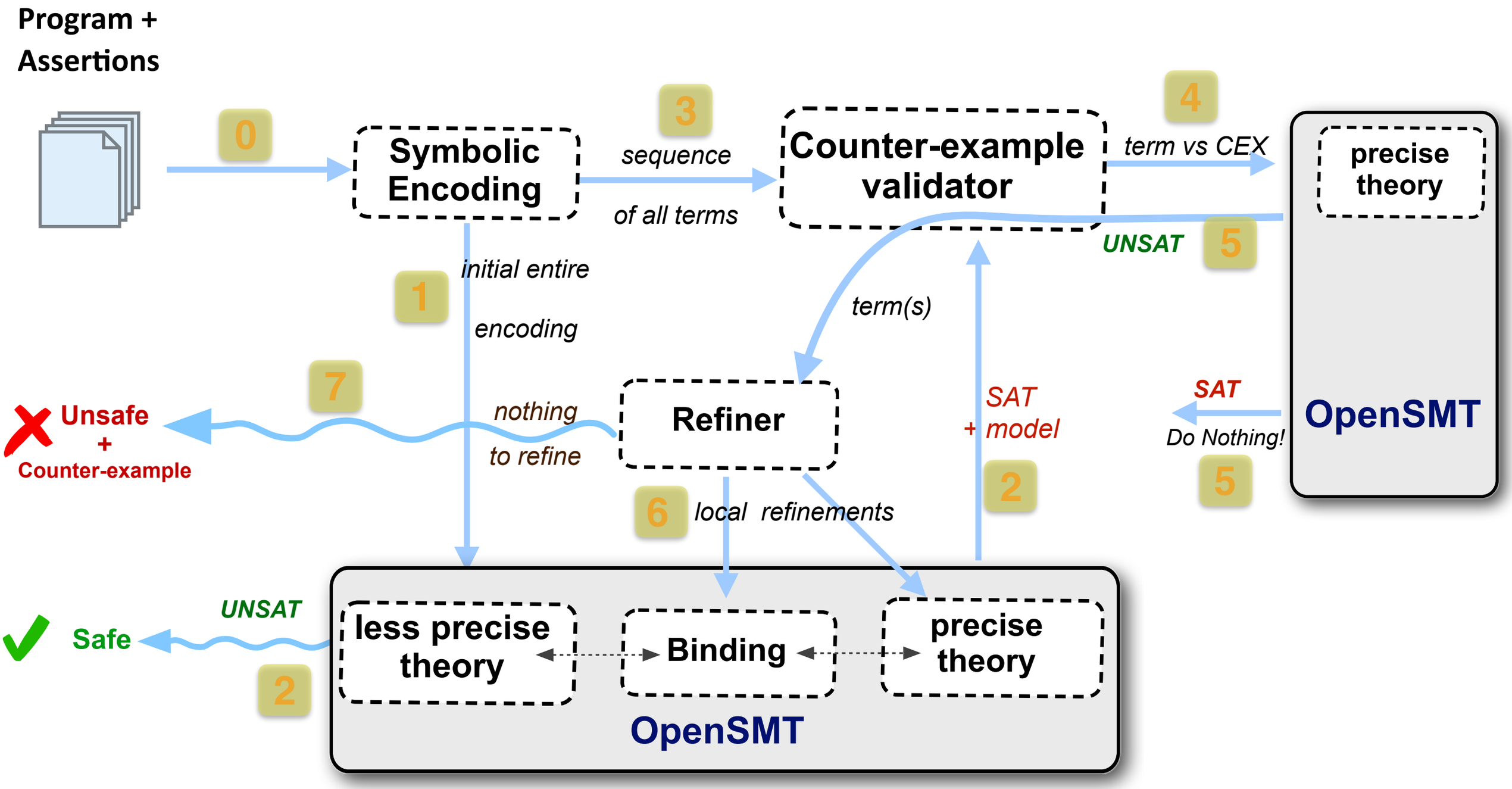

http://verify.inf.usi.ch/hifrog/

Looking forward to seeing you at poster sessions!