Towards a coordinated approach to software transformation

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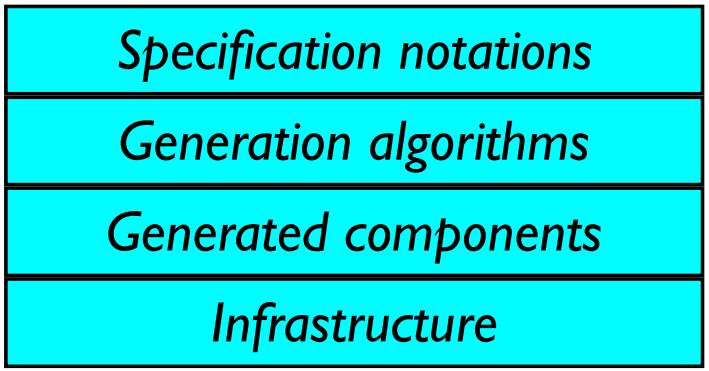
Our Thesis

STS focus: "architecture, reuse, implementation (data representations and algorithms), application models and benchmarks".

Our slant: generation of software transformation systems from high-level specifications.

Formalism

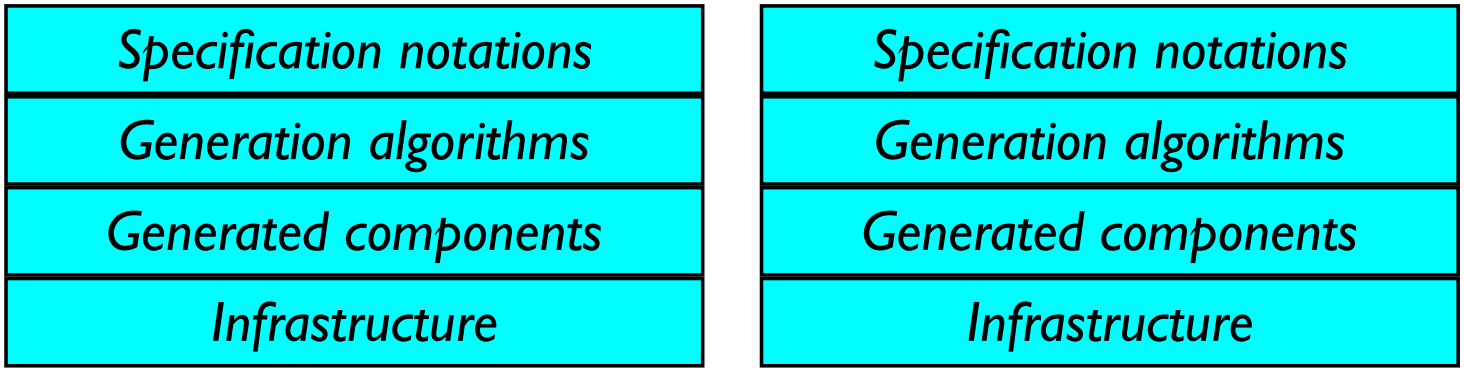


For the STS field to advance most effectively, we need a coordinated approach to these different levels.

Are we talking to ourselves?

Do we just do our own thing?

Or can we at least share infrastructure?



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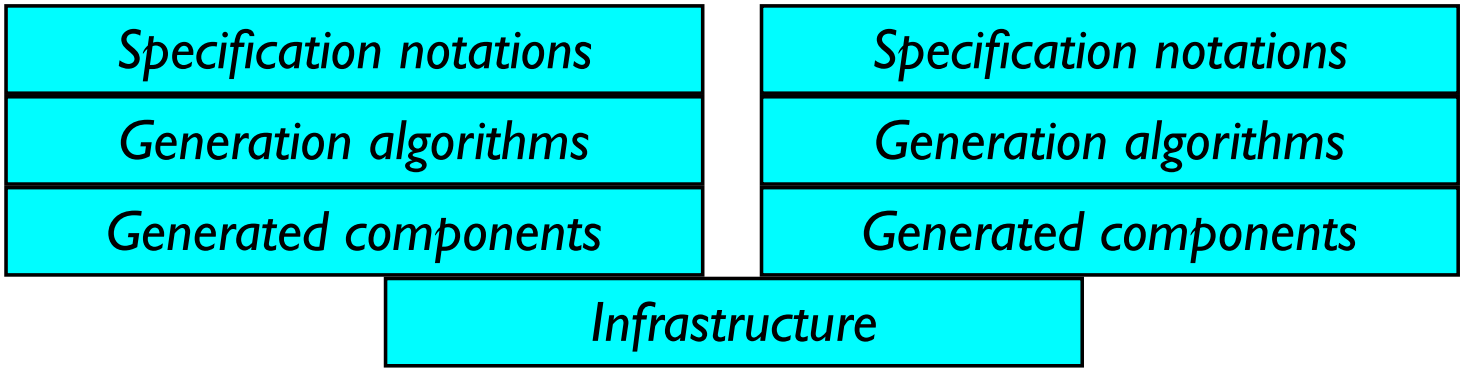
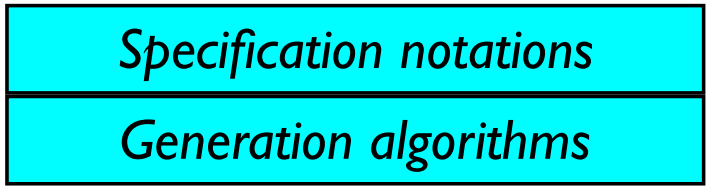
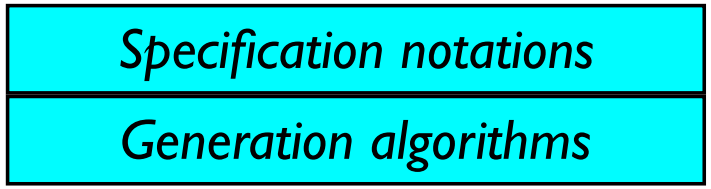


Incompatible specification notations

Are we able to reuse our specifications with more than one system for porting or comparison?

Can we understand each other's examples?





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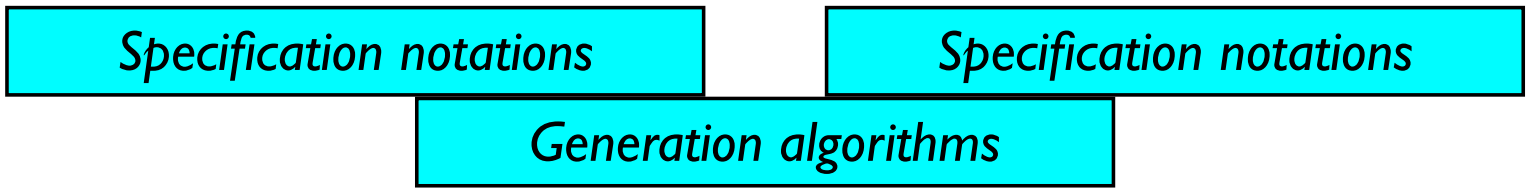

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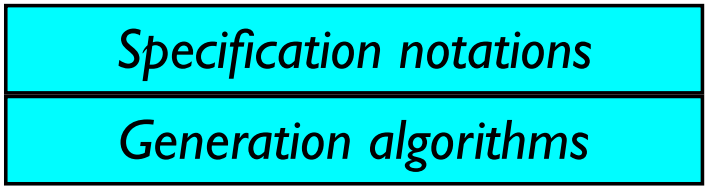

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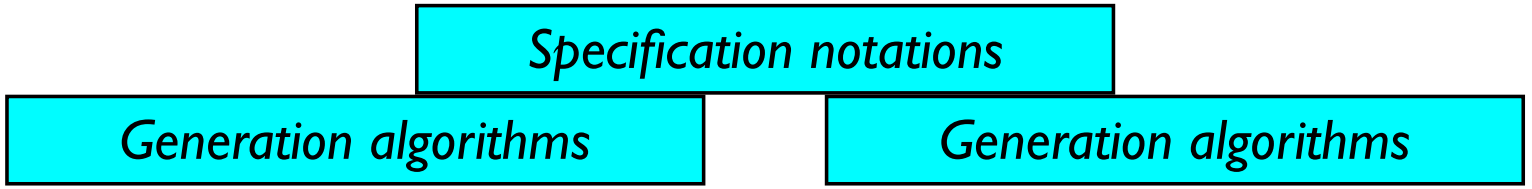
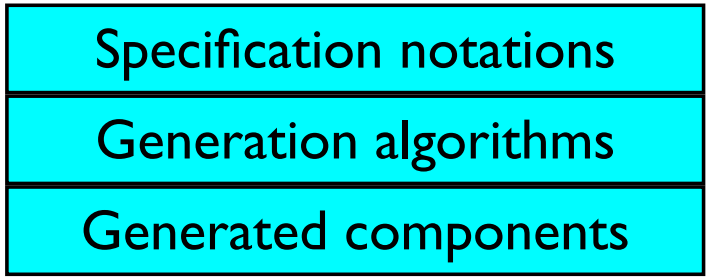


Hiding and reinvention of the wheel

What is really going on inside our tools?

How easily can we improve on or experiment with the algorithms without having to build a whole new tool?



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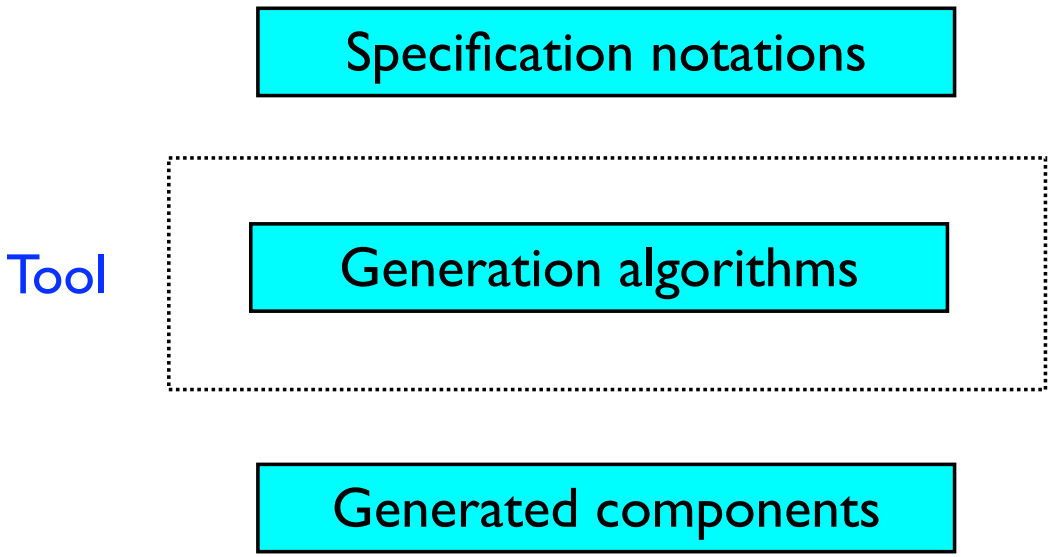

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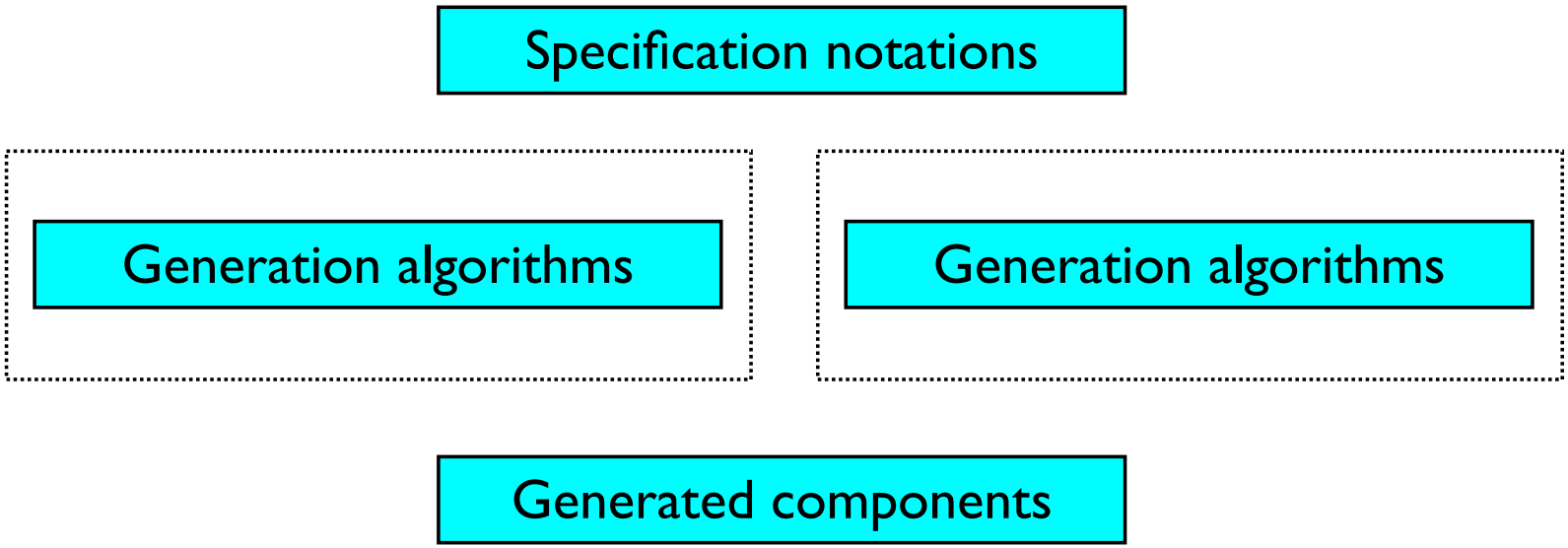

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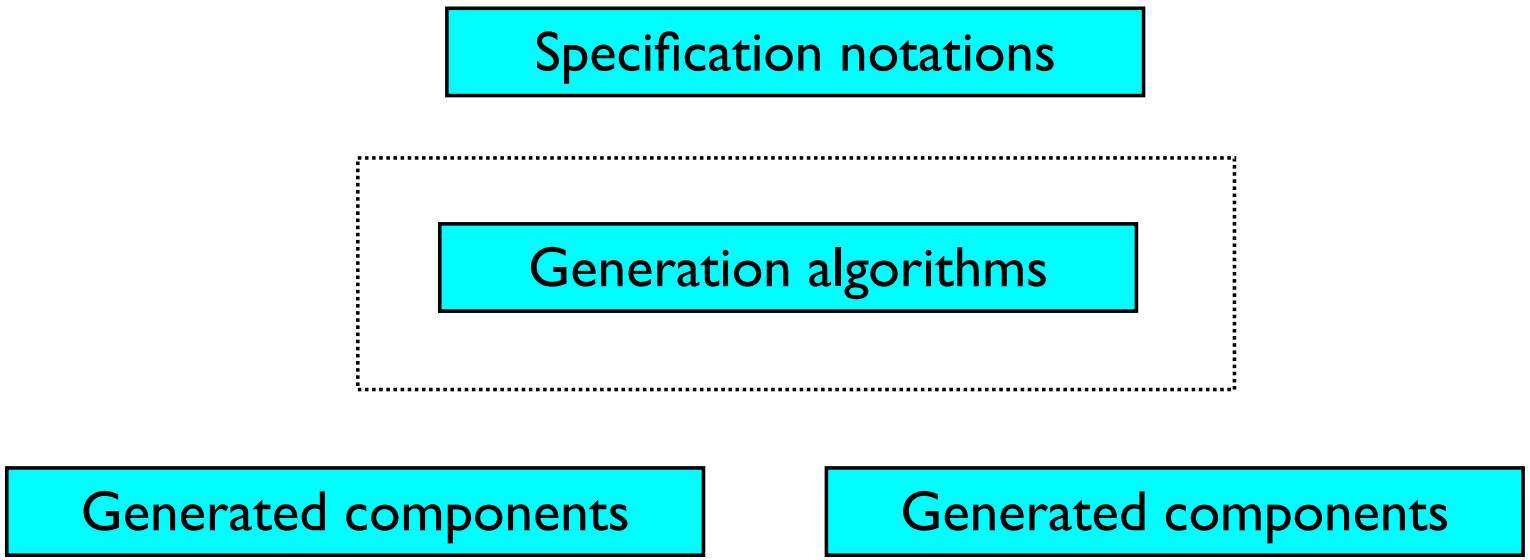
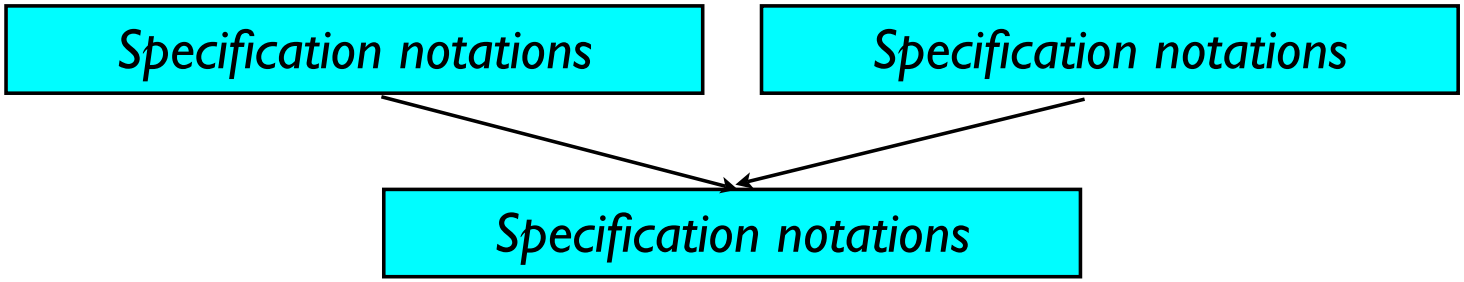


Interoperability and optimisation

At which levels can we mix two different systems?

Just joining or joining and optimisation?



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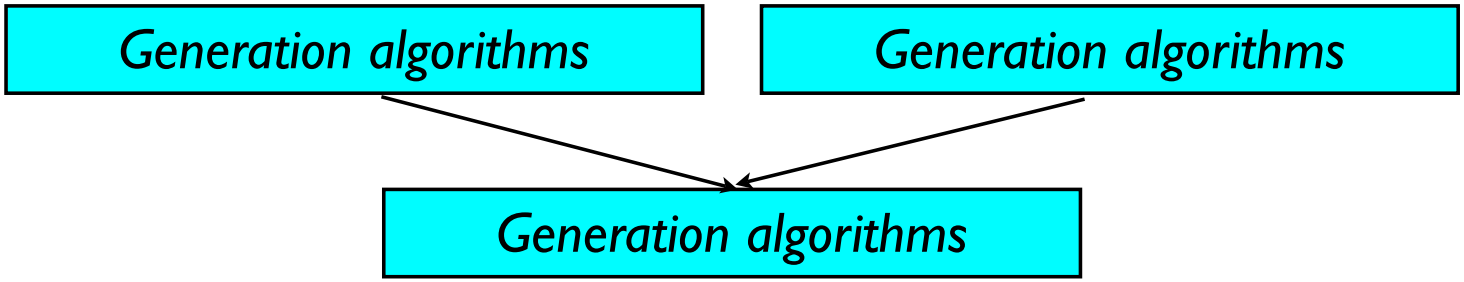

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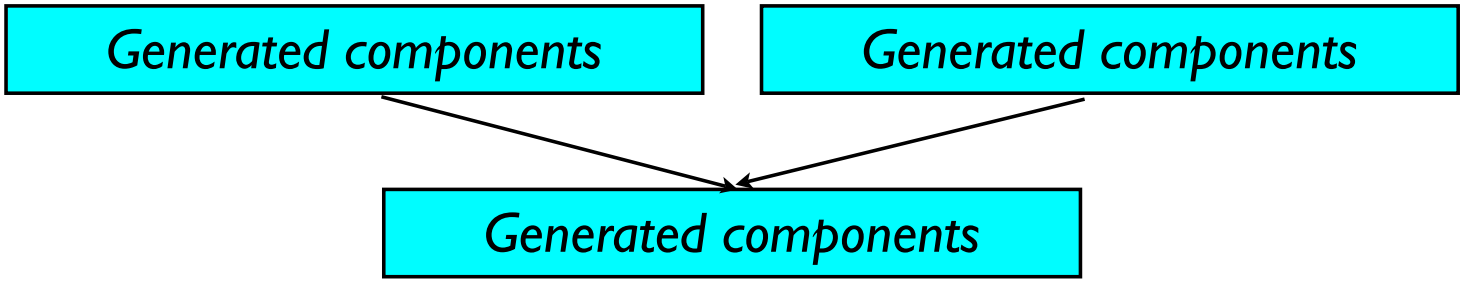

Where do we go from here?

Coordinate:

designs of specification notations,

high-level specifications of generation algorithms,

language-independent generated components,

integration and optimisation at all levels, and

reusable infrastructure.