

Title: Local Reasoning about Mashups

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Abstract. Web mashups are complex programs that dynamically compose XML data and JavaScript code from many sources. Whereas data is sometimes formally specified by XML schema, code never is. This makes it difficult to construct reliable software. Using local Hoare reasoning, introduced in separation logic to reason about e.g. C programs and extended in context logic to reason about e.g. the DOM library, we are able to reason about mashup programs, proving that they are fault-free and providing specifications for code that are analogous to XML schema for data.

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