

## Routes and Products of Monoids

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We investigate the problem of finding monoids that recognize languages of the form  $L_1 \bowtie_T L_2$  where  $T$  is an arbitrary set of routes. We present a uniform method based on routes to find such monoids. Many classical operations from the theory of formal languages, such as catenation, bi-catenation, simple splicing, shuffle, literal shuffle, and insertion are shown to be just particular instances of the operation  $\bowtie_T$  (see [3]).

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