

Applied Compositional Thinking for Engineers (ACT4E)



Recital 3

Questions & Answers

Q: what is a component (components)? Why List[Setoid]?

A: The product is composed of sets. For instance you could have the product: $\{a,b\} \times \{1,2\}$, where the components are sets $\{a,b\}$ and $\{1,2\}$. If you list the components, you have a list of sets.

Q: Why is cartesian product not associative?

A: Explained in the lecture. The set $(X1 \times X2) \times X3$ is not equal to $X1 \times (X2 \times X3)$, but only *isomorphic*. The listy product we introduced overcomes this issue.