product-map[11,40]

$\forall A$, B, C:Type, as:(A List), bs:(B List), F:($A \to B \to C$).
$\exists cs$:C List. ($\forall c$:C. ($c \in cs$) $\iff$ ($\exists a \in as$.($\exists b \in bs$.$c = F(a,b)$))))

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http://www.nuprl.org/FDLcontent/p0_963683_/p54_132765_{product-map}.html