

**ma-compatible<sup>0,22</sup>**

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$$M_1 \parallel M_2$$

$$\equiv_{\text{def}} M_1 \parallel \text{decl } M_2$$

$$\& \text{1of}(\text{2of}(\text{2of}(M_1))) \parallel \text{1of}(\text{2of}(\text{2of}(M_2)))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(M_1)))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(M_2))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

$$\& \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_1)))))) \parallel \text{1of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(\text{2of}(M_2))))))$$

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*clarification:*

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ma-compatible{i:1}  
  (M1; M2)  

$$\equiv_{\text{def}}$$
 ma-compatible-decls{i:1}  
  (M1; M2)  
  & fpf-compatible(Id;  
    x.fpf-cap(fpf-join(IdDeq;1of(M1);1of(M2));IdDeq;x;Void);  
    IdDeq;  
    1of(2of(2of(M1)));  
    1of(2of(2of(M2)))  
  & fpf-compatible(Id;  
    a.(State(fpf-join(IdDeq;1of(M1);1of(M2)))→  
      fpf-cap(fpf-join(KindDeq;1of(2of(M1));1of(2of(  
        M2));KindDeq;locl(a);Top)  
      →Propi);  
    IdDeq;  
    1of(2of(2of(2of(M1)));  
    1of(2of(2of(2of(M2)))  
  & fpf-compatible((Knd×Id);  
    kx.(State(fpf-join(IdDeq;1of(M1);1of(M2)))→  
      Valtype(fpf-join(KindDeq;1of(2of(M1));1of(2of(M2)));1of(kx))→  
      fpf-cap(fpf-join(IdDeq;1of(M1);1of(M2));IdDeq;2of(kx);Void);  
      product-deq(Knd;Id;KindDeq;IdDeq);  
      1of(2of(2of(2of(2of(M1)))));  
      1of(2of(2of(2of(2of(M2))))))
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& fpf-compatible
((Knd×IdLnk);
  kl.((tg:Id
    ×(State(fpf-join(IdDeq;1of(M1);1of(M2)))→
      Valtype(fpf-join(KindDeq;1of(2of(M1));1of(2of(M2)));1of(kl))→
        (fpf-cap(fpf-join(KindDeq;1of(
          2of(
            M1));1of(
              2of(
                M2)));KindDeq;rcv(2of(
                  kl),tg);Void) List))) List));
  product-deq(Knd;IdLnk;KindDeq;IdLnkDeq);
  1of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(M2)))))))
& fpf-compatible(Id;
  x.(Knd List);
  IdDeq;
  1of(2of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(M2)))))))
& fpf-compatible((IdLnk×Id);
  lt.(Knd List);
  product-deq(IdLnk;Id;IdLnkDeq;IdDeq);
  1of(2of(2of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(2of(M2)))))))
& fpf-compatible(Knd;
  k.(Id List);
  KindDeq;
  1of(2of(2of(2of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(2of(2of(M2)))))))
& fpf-compatible(Knd;
  k.(IdLnk List);
  KindDeq;
  1of(2of(2of(2of(2of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(2of(2of(M2)))))))
& fpf-compatible(Id;
  x.(Knd List);
  IdDeq;
  1of(2of(2of(2of(2of(2of(2of(2of(2of(M1))))));
  1of(2of(2of(2of(2of(2of(2of(2of(M2)))))))

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