1 Array?

The operation *array*? will return a boolean which indicates if the passed in argument is a Collection

$$array?\,(Arg) = true \vee false$$

such that if X is a collection $< x_0, x_1, x_2, x_3, x_4 >$ where

$$x_0 = 0$$

$$x_1 = foo$$

$$x_2 =< baz,\ qux >$$

$$x_3 =< abc \mapsto 123,\ def \mapsto 456 >$$

$$x_4 =<< ghi \mapsto 789,\ jkl \mapsto 101112 >,\ < ghi \mapsto 131415,\ jkl \mapsto 161718 >>$$

then the following return true

$$array?\,(X) = true$$

$$array?\,(x_2) = true$$

$$array?\,(x_4) = true$$

and the following return false

$$array?\,(x_0) = false$$

$$array?\,(x_1) = false$$

$$array?\,(x_3) = false$$

Indicating that *array*? will return true when

- *Arg* is a Collection or Scalar(s)

but will return false when

- *Arg* is a non-array Scalar

which emphasises the difference between

- an *object*

  $$x_3 =< abc \mapsto 123,\ def \mapsto 456 >= KV$$

- a Collection of *object*(s)

  $$x_4 =<< ghi \mapsto 789,\ jkl \mapsto 101112 >,\ < ghi \mapsto 131415,\ jkl \mapsto 161718 >>=< KV_0, KV_1 >$$