Phase 18 Demo : Partial Function Operators

Example 1 : -—¿ operator (partial injection)

Basic function type with -—¿ operator:

$$f : N \rightarrowtail N$$
$$\mathrm{dom}\, f = \{1, 2, 3\}\, f(1) = 10\, f(2) = 20\, f(3) = 30$$

Example 2 : +-¿ operator (partial function)

Basic function type with +-¿ operator:

$$g : N \nrightarrow N$$
$$\mathrm{dom}\, g = \{1, 2\}\, g(1) = 100\, g(2) = 200$$

Example 3 : Complex types with -—¿

Using -—¿ with custom types:

$$[Year, Entry]$$

abbrev
Table $==$ seq $Entry$

$$records : Year \rightarrowtail Table$$
$$\mathrm{dom}\, records = \{1993, 1994, 1995\}$$

Example 4 : Mixed function type operators

Different function type operators:

$$total : N \rightarrow N\, partial : N \nrightarrow N\, injection : N \rightarrowtail N$$