ITERABLE[G]* ITERATION CURSOR[G]* feature feature new cursor* new cursor*: ITERATION CURSOR[G] item*: G -- Fresh cursor associated with current structure --Item at the current cursor DATA SET[V1, V2, K]+position feature feature -- Attributes after*: BOOLEAN data item 1: V1 -- Are there no more items to REPOSITORY[K, D1, D2]+ data item 2: V2 iterate over? kev: K feature feature -- Equality forth* feature -- Attributes is equal+(like Current): BOOLEAN Move to next position. keys: LINKED LIST[K] data items 1: ARRAY[D1] data items 2: HASH TABLE[D2, K] feature -- Mutators check in (d1: D1: d2: D2: k: K) item+ **require** non existing key: $\forall j: 1 \le j \le \text{keys.count}$: keys.i $th(j) \neq k$ ensure repository count incremented: another cursor+ keys.count = old key.count + 1new cursor+ check out (k: KEY) **require** existing key: $\exists j: 1 \le j \le \text{keys.count}$: kevs.i th(i) = kensure repository count decremented: DATA SET_ITERATION_CURSOR[D1, D2, K] keys.count = old key.count - 1TUPLE ITERATION CURSOR[K, D1, D2] invariant consistent keys data items counts: keys.count = data items 1.count \wedge keys.count = data items 2.count

