0.0.1 At Key

The operation $atKey$ will return the Value v at some specified

- Top level Key k within KV

$$atKey(KV, k) \rightarrow v$$

- Nested location $K =< k_i..k_n..k_j >$ within KV

$$atKey(KV, K) \rightarrow v$$

such that if KV is a collection of Key Value pair(s) $< k_0 v_{k_0}, k_1 v_{k_1} >$ where

$$k_0 = abc \ \wedge v_{k_0} = 123$$
$$\Rightarrow$$
$$k_0 v_{k_0} = abc \mapsto 123$$

and

$$k_1 = def \ \wedge v_{k_1} = xyz \mapsto 456$$
$$\Rightarrow$$
$$k_1 v_{k_1} = def \mapsto xyz \mapsto 456$$

such that

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

When k is a single Key

- $k \notin KV$, $atKey$ will return the representation of nothingness

$$atKey(KV, cba) = nil$$

- $k \in KV$, $atKey$ will return v_k

$$atKey(KV, k_0) \Rightarrow atKey(KV, abc) = 123$$
$$atKey(KV, k_1) \Rightarrow atKey(KV, def) = xyz \mapsto 456$$

When K is a Collection of Key(s)

- $K \notin KV$, $atKey$ will return the representation of nothingness

$$atKey(KV, < cba, 321 >) = nil$$

- $k_i \in KV \ \wedge k_j \notin KV$, $atKey$ will return the representation of nothingness

$$atKey(KV, < def, abc >) = nil$$

- $k_i \in KV \ \wedge k_j \in KV$, $atKey$ will return the nested value

$$atKey(KV, < def, xyz >) = 456$$