

[(September 9, 2010) Correction to: Hadoop++: Making a Yellow Elephant Run Like a Cheetah (Without It Even Noticing). J. Dittrich et al., PVLDB'10.]

In Section 4.1 the UDFs were incorrectly described for data co-partitioning. They should be replaced with the following UDFs:

$$CoPartition_{a_i, b_j}(T, S) \Rightarrow \begin{cases} \text{map}(\text{key } k, \text{value } v) \mapsto \\ \left\{ \begin{array}{l} [(\text{pr } j_{a_i}(k \oplus v), k \oplus v)] \quad \text{if } \text{input}(k \oplus v) = T, \\ [(\text{pr } j_{b_j}(k \oplus v), k \oplus v)] \quad \text{if } \text{input}(k \oplus v) = S. \end{array} \right. \\ \text{reduce}(\text{key } ik, \text{vset } ivs) \mapsto [(ik) \times ivs] \end{cases}$$

For each record in an input split, `itemize.next()` receives the `offset` as key and the record as value and map emits `{joinvalue, record}` as key-value pairs. For re-partitioning, sorting, and grouping the key-value pairs we use the entire key, i.e. we use the default `sh`, `cmp`, and `grp` UDFs. Figure 3(b) should be changed to show the Map Phase outputting `{joinvalue, record}` accordingly.