```
1   FUNCTION_BLOCK Intiate_tracking
2   VAR_INPUT
3       shelfArray : ARRAY [ 1 .. 42 ] OF ShelfSpace ;   (* Array of shelf spaces *)
4   END_VAR
5   VAR_IN_OUT
6       shelfPartTrackingArray : ARRAY [ 1 .. 42 ] OF ShelfPartTracking ;   (* Array
    of shelf part tracking *)
7   END_VAR
8   VAR
9       i : INT ;                                                    (* Loop
    variable *)
10      trackingIndex : INT := 0 ;                                     (* Index for
    tracking array, initialized to 0 *)
11      removedShelfIndex : INT := 0 ;                                 (* Index of
    the removed shelf *)
12      shiftTrackingIndex : BOOL := FALSE ;                           (* Flag to
    indicate if tracking indexes need to be shifted *)
13  END_VAR
14
```

```
1       FOR i := 1 TO 42 DO
2           shelfPartTrackingArray [ i ] . partID := shelfArray [ i ] . partID ;
3       END_FOR ;
4
5       FOR i := 1 TO 42 DO
6           IF shelfArray [ i ] . partID <> '00' THEN                    (* Check
    if the shelf is not empty *)
7               IF shelfPartTrackingArray [ i ] . shelfIndex = 0 THEN      (* Check
    if the shelf is not yet tracked *)
8                   trackingIndex := trackingIndex + 1 ;                (* Increment
     tracking index *)
9                   shelfPartTrackingArray [ i ] . shelfIndex := trackingIndex ;   (*
    Store the tracking index for this shelf *)
10                  shelfPartTrackingArray [ i ] . partID := shelfArray [ i ] . partID ;
11              END_IF ;
12          END_IF ;
13      END_FOR ;
14
```