



## ABAP PERFORMANCE TUNING – PARALLEL CURSOR

### Keywords

- Parallel Cursor
- Nested Loop
- Performance Tuning

### Introduction

To improve the performance of ABAP reports, a simple technique called Parallel Cursor can be used.

Based on our internal testing, here's the result obtained:

Program \ # of records	20,000	50,000	80,000	200,000
PROG_NESTED	16 sec	45 sec	180 sec	154 sec
PROG_PARALLEL	5 sec	11 sec	30 sec	42 sec

### ABAP Code Sample

Below coding (called **Nested Loop**) would be slow and **should not be used** for large internal tables.

```
LOOP AT itab_a INTO wa_a.  
  LOOP AT itab_b INTO wa_b.  
    WHERE field_x = wa_a-field_x.  
    ...  
  ...  
ENDLOOP.  
ENDLOOP.
```

Below coding (called **Parallel Cursor**) **should be used** for large internal tables.

```
SORT itab_a BY field_x.  
SORT itab_b BY field_x.  
LOOP AT itab_a INTO wa_a.
```

```
  "Get the beginning index of itab_b  
  READ TABLE itab_b TRANSPORTING NO FIELDS  
  WITH KEY field_x = wa_a-field_x.  
  IF sy-subrc <> 0. CONTINUE. ENDIF.      "Next record of itab_a
```

```
  lv_idx = sy-tabix.  
  LOOP AT itab_b ASSIGNING <fs_b> FROM lv_idx.  
    ... << actual logic here >> ...  
  ENDLOOP.  
ENDLOOP.
```



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## **URL Reference**

<http://wiki.scn.sap.com/wiki/display/Snippets/Improve+nested+loop+performance+with+ABAP>

<http://wiki.scn.sap.com/wiki/display/Community/Alternatives+for+Nested+Loops>



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