



EPV zParser Duplicated data controls

Technical notes



Supporting
EPV zParser V14

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About this document

These notes provide a description of the duplicated data controls provided by EPV zParser.



1 Introduction

EPV zParser is a revolutionary alternative tool designed to free customers from the need of using old, expensive and complex-to-manage mainframe tools to interpret and collect SMF and other data needed to support Capacity Management and other related activities.

EPV zParser interprets and collects SMF and RMF standard records, SMF user records, IMS log records, IDCAMS/DCOLLECT records, z/VM monitor records, BVIR records produced by the IBM TS7700 VTS, CSV files and creates TXT files which can be loaded in a SQL database. Currently supported DBMS are MySQL/MariaDB (Linux, Unix and Windows systems) and MS SQL Server (Windows systems).

EPV zParser is a component of the Enterprise Performance Vision (EPV) product suite; it is also the suite foundation providing input data to EPV for z/OS, EPV for DB2, EPV for WMQ and EPV for zLINUX products.

A major issue with daily collection of large amount of data is the possibility that the same data are loaded more than one time.

This is normally due to errors in procedure design or to anomalies in host batch processing so it should be fixed at that level.

However EPV zParser provides some controls that the user can activate in order to avoid collecting duplicated data. They are described in this document.



2 Duplicated data controls

EPV zParser provides three levels of control to avoid duplicated data to be collected in the database:

- Level 1; to avoid the same input file is loaded more times;
- Level 2; to avoid that the same input data in different files will be loaded more times;
- Level 3; to avoid that the same input data even in the same files will be loaded more times.

The EPV zParser duplicated control flow is depicted in Figure 1.

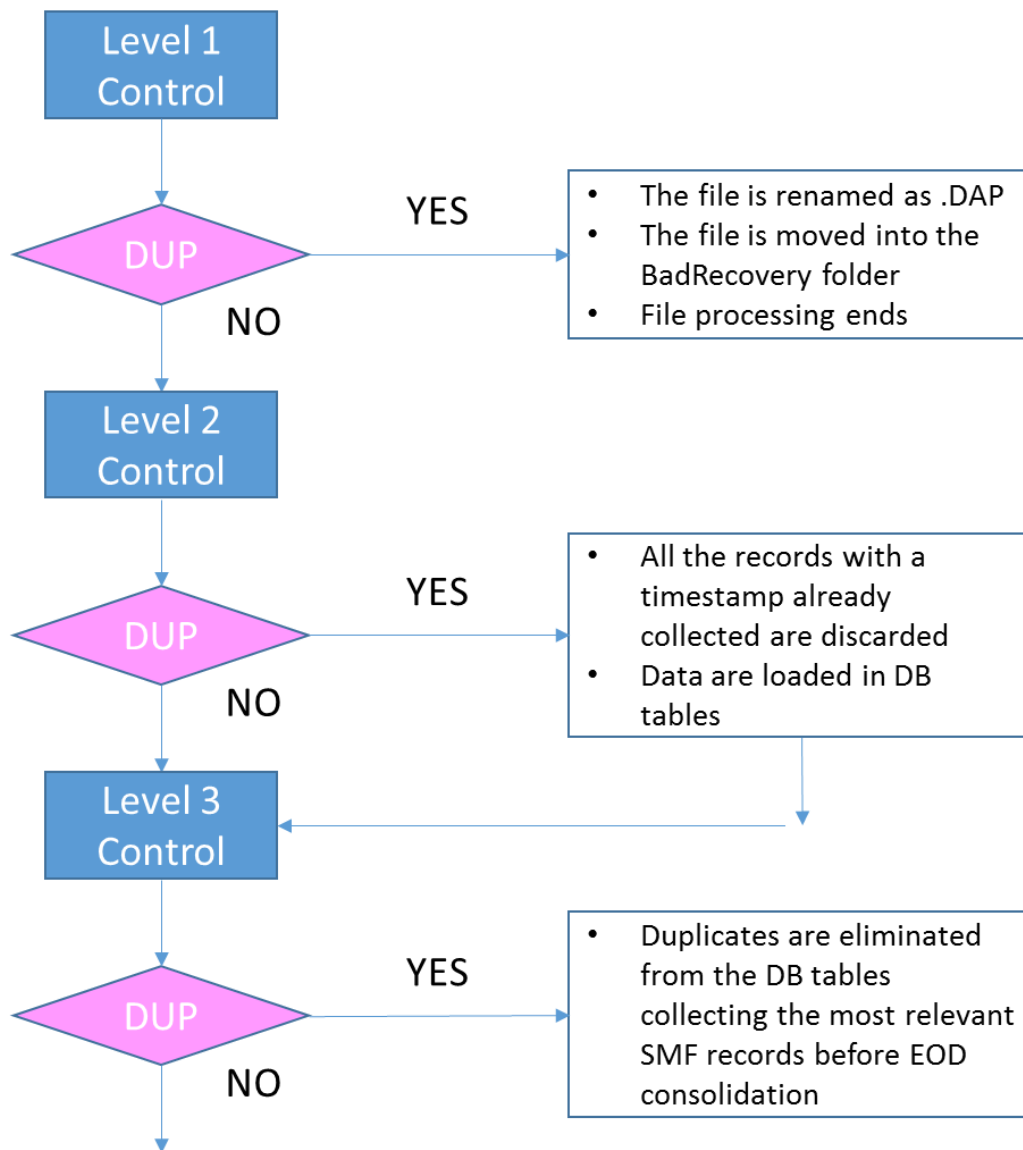


Figure 1



2.1 Level 1

Level 1 control can be activated/deactivated by setting the **\$CHKDUP_SAME_FILE** parameter in the CONFIG.PL member. The default value is Y (control activated).

You can set it to N to deactivate this control.

If the Level 1 control is activated, EPV zParser reads the first 112 bytes of each Dcollect, IMS or SMF file.

This string is then compared with the contents of a perl DB (firstbytes.db); if that string is already present, for the same system-id, the file is marked as DAP (Data Already Parsed) and moved to the BadRecovery folder.

2.2 Level 2

Level 2 control can be activated/deactivated by setting the **\$CHKDUP_MORE_FILES** parameter in the CONFIG.PL member. The default value is N (control deactivated).

You can set it to Y to activate this control.

If the Level 2 control is activated, at each file processing EPV zParser stores, for each system-id and record type, the highest and the lowest timestamps in a control file.

On completion of each file processing, EPV zParser reassembles the control file, by retaining only those rows where there is at least a one minute gap between the highest timestamp of a row and the lowest timestamp of the next.

This file is loaded, at the beginning of each file processing, into an indexed table (keys are SYS and RECTYPE) named ARCHTIME on a memory resident DB and accessed through the SQL standard language.

For each record the following query is executed:

```
SELECT RECTYPE FROM ARCHTIME WHERE SYS='$system' AND RECTYPE='$rectype' AND  
ENDINTRV >= '$intrvl' AND STARTINTRV <= '$intrvl'
```

where \$system, \$rectype and \$intrvl are the system, record type and timestamp of the record.

If the query returns at least one record, EPV zParser assumes that this record was already loaded and discards it.

When duplicated records are discarded, "Duplicated records skipped" is written in the note column of the record summary report provided in the EPV zParser log for each processed file. See example in Figure 2.



```

-----
Type|SubType | %|n° record| Mbyte|Size %|note
-----
  2|NoSubType| 0.0|      1| 0.000| 0.000|Skip, used only for statistics
  3|NoSubType| 0.0|      1| 0.000| 0.000|Skip, used only for statistics
*30| 1|      2.7|     896| 0.350| 0.665|Duplicated records skipped
*30| 2|      3.8|    1237|13.759|26.124|Duplicated records skipped
*30| 3|     44.2|   14487|16.960|32.202|Duplicated records skipped
*30| 4|     44.4|   14542|17.100|32.469|Duplicated records skipped
*30| 5|      2.9|     966| 3.441| 6.534|Duplicated records skipped
*30| 6|      0.1|      44| 0.043| 0.081|Duplicated records skipped
*70| 1|      0.0|       5| 0.071| 0.136|Duplicated records skipped
*70| 2|      0.0|       5| 0.003| 0.006|Duplicated records skipped
*71|NoSubType| 0.0|       5| 0.009| 0.017|Duplicated records skipped
*72| 3|      1.8|     580| 0.735| 1.395|Duplicated records skipped
*72| 4|      0.0|       5| 0.076| 0.144|Duplicated records skipped
*73|NoSubType| 0.0|       5| 0.120| 0.228|Duplicated records skipped
-----

```

Figure 2

2.3 Level 3

Level 3 control can be activated/deactivated by setting the **\$CHKDUP_INSIDE_ONEFILE** parameter in the CONFIG.PL member. The default value is N (control deactivated).

You can set it to S or Y to activate this control.

Whatever value you set in the above parameter at the End Of Day (EOD) a check of duplicate lines is executed on the following tables:

- epv070_1_cpu
- epv100_0_stat0
- epv115_1_si

If no duplicated records are found in the above tables, EPV zParser processing continues.

If duplicated records are found in the above tables, the EPV zParser behaviour depends on the **\$CHKDUP_INSIDE_ONEFILE** settings:

- with N a warning message is written in the log and processing continues;
- with S an error message is written in the log and processing stops;
- with Y duplicated data are automatically removed from all the tables reported in Figure 3.



epv113_1_hdcap epv113_2_hdcap epv030_6_addrsp epv030_23_intrvl epv070_1_as epv070_1_cec epv070_1_cpu epv070_1_lpar epv070_1_engines epv070_2_cryacl epv070_2_icsfsrv epv070_2_pkcs11 epv070_2_cryproc epv071_pageact epv072_3_servclas epv072_3_workacty epv072_3_resmanst epv072_4 epv072_5_scs epv072_5_clt epv072_5_lld epv072_5_cmlo epv072_5_cmlr epv072_5_grsl epv072_5_grse epv073_chpacty epv074_1_devacty epv074_2_xcfsyst epv074_2_xcfpath epv074_2_xcfmemb epv074_3	epv074_4_cfstruct epv074_4_cfrequest epv074_4_cfremote epv074_4_cfdata epv074_5_cacheact epv074_6_gdata epv074_6_gbuffer epv074_6_filesystem epv074_7_fcdswitch epv074_7_fcdport epv074_7_fcdconnector epv074_8_edlinks epv074_8_edranka epv074_8_edranks epv074_8_edexpol epv075_pageds epv076_trace epv077_enqueue epv078_2_vsglobl epv078_2_vsprvar epv078_2_vssubpl epv078_3_ioqinit epv078_3_ioqconf epv078_3_ioqueue epv079_1_addrst epv079_2_addrres epv079_3_storproc epv079_4_pagact epv079_5_addrstrm epv079_6_reserv epv079_7_enque	epv079_8_tranact epv079_9_devact epv079_10_domact epv079_11_pagedsact epv079_12_chpath epv079_13_lcu epv079_13_ioque epv079_14_ioconf epv079_14_ioque epv079_15_irlm epv100_0_remloc epv100_0_stat0 epv100_1_bpools epv100_1_gbpools epv100_1_stat1 epv100_2_stat2 epv100_3_gbpattr epv100_4_dbbuff epv100_4_stat4 epv100_5_cpuwait epv115_1_si epv115_2_cf epv115_2_mdm epv115_2_bm epv115_2_tm epv115_2_smd epv115_5_sph epv115_6_sgm epv115_7_srs
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Figure 3



3 Customer support

For any technical problems or questions about EPV zParser please email:

epv.support@epvtech.com

For any other issue about EPV for z/OS please email:

epv.info@epvtech.com



Related documentation

The following manuals complement the information provided in this manual:

- *EPV V14 Installation and EXPRESS Customization in Unix*
- *EPV V14 Installation and EXPRESS Customization in Windows*
- *EPV zParser V14 Installation and Customization*
- *EPV V14 Operations Guide*
- *EPV V14 Messages and Codes*