SAFR Tool: VDP Analyzer

SAFR = Scalable Architecture for Financial Reporting
VDP = View Definition Parameters

Version 2.0

Document Issue Date: 14 May 2015

Document Authors: IAN CUNNINGHAM & EUGENE MORROW

Document Filename: VDPAnalyzer2.0.odt

Classification: IBM Confidential

Contents

1 Document overview information

1.1 About this document

This document describes VDP Analyzer tool, a mainframe batch program that is part of SAFR.

1.2 Who should use this document

This document should be used SAFR application developers and support personnel.

1.3 Summary of changes

Ver	Date	Author(s)	Description of Change
0.1	11 Mar, 2015	Ian Cunningham	Initial draft
1	15 Apr, 2015	Eugene Morrow	Version 1.0 completed.
2	14 May, 2015	Eugene Morrow	Version 2.0 completed.

2 Overview

2.1 Executive summary

The VDP Analyzer runs on an IBM mainframe, and reads components in one or two VDP files.

A component in a VDP can be a:

- view,
- view logic text,
- control record,
- logical file,
- logical record,
- lookup path,
- physical file
- user-exit routine.

The **input** is:

- one or two VDP files created by MR86, MR84 or MR90.
  For more, see ***Section 3 Input: VDP files***.
- a configuration file.
  For more, see ***Section 4 Input: Configuration File***.

The **output** is:

1. **Run report**
   This report summarizes the run date, input and actions taken. This report is always produced.
   For more details, see ***Section 5 Output: Run Report***.

2. **PLUS**
   - **EITHER VDP Reports**
     Some report types cover the VDP as a whole.
     Some report types cover one particular type of component inside a VDP.
     Most report types have three actual reports: for VDP1, for VDP2 and a comparison.
     For more details, see ***Section 2.2 Overview: Output VDP Reports***.
   - **OR Template files**
     Templates are generated for view output and logical records.
     Use these templates as input to the z/OS File Manager tool.
     For more details, see ***Section 2.3 Overview: Output Templates***.

2.2 Overview: Output VDP Reports

It is recommended to have two JCL jobs for VDP reports (one for a single VDP, the second for two VDPs) and a third job for templates. It is also recommended to have a separate configuration file for each of these jobs.

The VDP Reports display information about a single VDP or display a comparison of two VDPs. The comparison reports can also be called "difference reports".

There may be many reasons two VDP files for the same view may be different.
One reason is because of changes to data in the SAFR workbench. A second reason is because of VDP updates made by different programs or even different versions of the same program.

All VDP reports always reflect the data in the workbench. This is because the data in a VDP file originates from the workbench (whether WW or WE version).

The possible VDP Reports are:

1. **Catalog Summary reports**
   Covers the whole VDP and lists components inside.
   There are three catalog summary reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.1 Examples: Catalog Summary reports.***

2. **Catalog Detailed reports**
   Covers the whole VDP. Includes the Catalog Summary data and adds extra detail for:
   - logical files,
   - logical records,
   - lookup paths and
   - views.

   There are two catalog detailed reports: for VDP1, for VDP2.
   See ***Section 6.2 Examples: Catalog Detailed reports***.

3. **Control Record reports**
   Covers the control records in a VDP.
   There are three control record reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.3 Examples: Control Record reports***.

4. **Logical File reports**
   Covers the logical files in a VDP.
   There are three logical file reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.4 Examples: Logical File reports***.

5. **Logical Record reports**
   Covers the logical records in a VDP.
   There are three logical record reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.5 Examples: Logical Record reports***.

6. **Lookup Path reports**
   Covers the lookup paths in a VDP.
   There are three lookup path reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.6 Examples: Lookup Path reports***.

7. **Physical File reports**
   Covers the physical files in a VDP.
   There are three physical file reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.7 Examples: Physical File reports***.

8. **User-Exit Routine reports**
   Covers the user-exit routines in a VDP.
   There are three user-exit routine reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.8 Examples: User Exit Routine reports***.

9. **View Logic reports**
   Covers the logic text in views in a VDP.
   There are three view logic reports: for VDP1, for VDP2 and a comparison.
   See ***Section 6.9 Examples: View Logic reports***.

10. **View Properties reports**
    Covers the view properties, sources and columns.
    There are three view properties reports: for VDP1, for VDP2 and a comparison.
    See ***Section 6.10 Examples: View Properties reports***.

2.3 Overview: Output Templates

It is recommended to have a JCL job for templates, and two other jobs for VDP reports (one for a single VDP, the second for two VDPs). It is also recommended to have a separate configuration file for each of these jobs.

Templates files are generated for one VDP. A second input VDP is ignored.

Templates are generated for view output and logical records in the VDP. The templates are stored in a PDS. Use these templates as input to the z/OS File Manager tool. Even if the files are VSAM, the templates allow File Manager to perform browse, edit, copy, print and other functions.

Using templates, File Manager works with any files that are input or output from a SAFR view. Hence templates assist overall work with a SAFR view.

Generating the templates files is recommended for all SAFR views (unless all view input and output files are sequential).

For examples, see ***Section 8 Output: Templates***.

3 Input: VDP files

One or two VDP files can be input to the VDP Analyzer.

Input must be a VDP file created by **MR86, MR84 or MR90**.

Such VDP files have dataset attributes of:

```
DSORG=PS,RECFM=U,LRECL=0
```

Input cannot be a VDP file created by MR75 or MR77. These files use EBCDIC characters and have dataset attributes similar to:

```
DSORG=PS,RECFM=VB,LRECL=32756,BLKSIZE=32760
```

If the input is a VDP file created by MR75 or MR77, this causes CC 0001 – see ***Section 10.1***.

Provide the VDP Analyzer a single input VDP file to generate reports or templates for that VDP.

Provide the VDP Analyzer two input VDP files to generate reports that compare the two VDPs.

The number of VDP files is given in the configuration file – see ***Section 4.2.1 VDP DDNAMEs***.

4 Input: Configuration File

4.1 PARM value

The VDP Analyzer requires a PARM value similar to the following for the job step GVBVDPDF:

```
//PSTEP120 EXEC PGM=GVBVDPDF,REGION=1024M,
// PARM='-c DD:CFG'
```

This declares the DDNAME CFG for the Configuration File. The letters "CFG" can be some other string, as long the string is an acceptable DDNAME in JCL.

4.2 Data in the Configuration File

Complete the configuration file as follows:

- Assign DDNAME values in the configuration file for reports and/or templates you require. You must ensure the JCL codes the assigned DDNAME values.
- Ensure the Database Field Table is present to control what data appears in the reports. This is usually a standard table of values that does not change over time.

By using the above, the configuration file is, in effect, a type of VDP query mechanism.

The configuration file data is broken into parts, as shown in the following sections:

- ***Section 4.2.1 VDP DDNAMEs***
- ***Section 4.2.2 Output DDNAMEs***
- ***Section 4.2.3 Database Field Table***

4.2.1 VDP DDNAMEs

The text **[VDPDIFF]** appears on the first line. The text can be anywhere on that line.

This assigns DDNAMES to one or two input VDP files. For one input VDP, code as follows:

```
[VDPDIFF]
IN_VDP1=DD:VDP1
*IN_VDP2=DD:VDP2
```

Note that "*" in column 1 means that line is a comment. For two VDPs, code as follows:

```
[VDPDIFF]
IN_VDP1=DD:VDP1
IN_VDP2=DD:VDP2
```

4.2.2 Output DDNAMEs

The possible reports are outlined in ***Section 2.2 Overview: Output VDP Reports***.
The possible templates are outlined in ***Section 2.3 Overview: Output Templates***.

This part of the configuration file for the reports specifies a DDNAME for relevant output files. For any DDNAME assigned in the configuration file, ensure the JCL codes that DDNAME.

For report output, ensure that the Config File is prepared as follows:

- If a report is required, ensure the relevant DDNAME is specified.
- If a report is not required, insert "*" as the first character to comment out the line.

For templates, ensure the templates DDNAME is specified in the Config File. For templates, also ensure the View Properties and Logical Record report DDNAMES are specified.

In the example below, only the catalog summary report for VDP1 is generated:

```
VDP1_CATALOG=DD:CAT1
* VDP2_CATALOG=DD:CAT2
* VDPC_CATALOG=DD:CATRPT
```

In the example below, all three catalog summary reports are generated:

```
VDP1_CATALOG=DD:CAT1
VDP2_CATALOG=DD:CAT2
VDPC_CATALOG=DD:CATRPT
```

An empty dataset occurs for a dataset coded in your JCL that is commented out in the Config file.

In the example below, templates are generated:

```
*       VIEW PROPERTIES Reports
VDP1_VIEW_REPORT=DD:VWRPT1
*VDP2_VIEW_REPORT=DD:VWRPT2
*VDPC_VIEW_REPORT=DD:VWRPT
*
*       LOGICAL RECORD Reports
VDP1_LR_REPORT=DD:LRRPT1
*VDP2_LR_REPORT=DD:LRRPT2
*VDPC_LR_REPORT=DD:LRRPT
*
*       TEMPLATES LIBRARY
FMTEMPLATES=DD:TMPLTS
```

Note the DDNAMEs required are the View Properties report (VDP1), the Logical Record report (VDP1) and the templates library. No other DDNAMES are required for templates.

4.2.3 Database Field Table

This controls how database fields appear in reports.

Ensure text **[NODES]** is on a line by itself before the table.

The table has three columns, with '=' as delimiter:

- Column **Database Field**
- Column **Report String** – the text to be printed for the database field.
  Example: field "LK_CONST_LEN" is displayed as "Constant Length" in reports.
  The sample configuration file provides text strings for many database fields. Modify the table as required.
- Column **Usage** – the usage of the database field in reports. The usage values possible are:
  - **Detailed** - the field appears in reports for one VDP,
  - **Compare** - the field appears in reports comparing two VDPs,
  - **Both** - the field appears in all relevant reports,
  - **Exclude** - the field does not appear any reports.

  Note: Only the first letter of the Usage column is important.
  If a database field is not listed in the table, then the default usage value is Both.

Examples are:

```
[NODES]
* DATABASE FIELD         REPORT STRING                 USAGE
CR_FISCAL=               First Fiscal Month=           Both
CR_MAX_FILE=             Max Extr file Num=            Both
LK_CONST_LEN=            Constant Length=              Both
LK_SRC_LR=               Source Logical Record=        Both
LK_TRG_LR=               Target Logical Record=        Both
LK_TRG_LF=               Target Logical File=          Both
```

4.3 Example Config: Reports for one VDP

```
[VDPDIFF]
*       Character (*) in position 1 indicates a comment.
*
*       Input VDP DDNAMES
*       =================
IN_VDP1=DD:VDP1
*IN_VDP2=DD:VDP2
*
*       OUTPUT DDNAMEs
*       ==============
*
*       CATALOG SUMMARY Reports
VDP1_CATALOG=DD:CAT1
*VDP2_CATALOG=DD:CAT2
*VDPC_CATALOG=DD:CATRPT
*
*       CATALOG DETAILED Reports
VDP1_CATALOG_REPORT=DD:CATDT1
*VDP2_CATALOG_REPORT=DD:CATDT2
*
*       VIEW PROPERTIES Reports
VDP1_VIEW_REPORT=DD:VWRPT1
*VDP2_VIEW_REPORT=DD:VWRPT2
*VDPC_VIEW_REPORT=DD:VWRPT
*
*       VIEW LOGIC Reports
VDP1_VIEW_LOGIC_REPORT=DD:LOGRPT1
*VDP2_VIEW_LOGIC_REPORT=DD:LOGRPT2
*VDPC_VIEW_LOGIC_REPORT=DD:LOGRPT
*
*       USER EXIT ROUTINE Reports
VDP1_USER_EXIT_REPORT=DD:EXRPT1
*VDP2_USER_EXIT_REPORT=DD:EXRPT2
*VDPC_USER_EXIT_REPORT=DD:EXRPT
*
*       CONTROL RECORD Reports
VDP1_CONTROL_REC_REPORT=DD:CRRPT1
*VDP2_CONTROL_REC_REPORT=DD:CRRPT2
*VDPC_CONTROL_REC_REPORT=DD:CRRPT
*
*       PHYSICAL FILE Reports
VDP1_PF_REPORT=DD:PFRPT1
*VDP2_PF_REPORT=DD:PFRPT2
*VDPC_PF_REPORT=DD:PFRPT
*
*       LOGICAL FILE Reports
VDP1_LF_REPORT=DD:LFRPT1
*VDP2_LF_REPORT=DD:LFRPT2
*VDPC_LF_REPORT=DD:LFRPT
*
*       LOGICAL RECORD Reports
VDP1_LR_REPORT=DD:LRRPT1
*VDP2_LR_REPORT=DD:LRRPT2
*VDPC_LR_REPORT=DD:LRRPT
*
*       LOOKUP PATH Reports
VDP1_LKUP_REPORT=DD:LKRPT1
*VDP2_LKUP_REPORT=DD:LKRPT2
*VDPC_LKUP_REPORT=DD:LKRPT
*
```

```
*
[NODES]
*       DATABASE FIELD TABLE
*       ====================
*
* DATABASE FIELD         REPORT STRING                  USAGE
*****************************************************************
CR_ID=                   CR ID=                         Both
CR_NAME=                 CR Name=                       Both
CR_FISCAL=               First Fiscal Month=            Both
CR_BEGIN=                Beginning Period=              Both
CR_END=                  Ending Period=                 Both
CR_MAX_FILE=             Max Extr file Num=             Both
EXIT_ID=                 ExitID=                        Both
EXIT_NAME=               Name=                          Both
EXIT_TYPE=               Type=                          Both
EXIT_LANG=               Language=                      Both
EXIT_PATH=               Path=                          Both
EXIT_EXEC=               Executable=                    Both
EXIT_OPT=                Optimize Flag=                 Both
LF_ID=                   ID=                            Both
LF_NAME=                 Name=                          Both
LK_ID=                   ID=                            Both
LK_NAME=                 Name=                          Both
LK_SRC_LR=               Source Logical Record=         Both
LK_TRG_LR=               Target Logical Record=         Both
LK_TRG_LF=               Target Logical File=           Both
LK_KEY_TYPE=             Key Type=                      Both
LK_LR_FIELD=             LR Field=                      Both
LK_LR=                   LR=                            Both
LK_CONST=                Constant=                      Both
LK_CONST_LEN=            Constant Length=               Both
LK_SYM=                  Symbol=                        Both
LK_VAL=                  Default Value=                 Both
LK_VAL_LEN=              Value Length=                  Both
LK_DTYPE=                Data Type=                     Both
LK_KEY_LEN=              Length=                        Both
LK_DATE=                 Date/Time Format=              Both
LK_SCALE=                Scaling Factor=                Both
LK_DPS=                  Decimal Places=                Both
LK_SIGNED=               Signed=                        Both
LR_ID=                   ID=                            Both
LR_NAME=                 Name=                          Both
LR_TYPE=                 Type=                          Both
LR_STATUS=               Status=                        Both
LR_LKP_EXIT=             Lookup Exit=                   Both
LR_LKP_PARMS=            Lookup Exit Parms=             Both
LR_FLD_ID=               ID=                            Both
LR_FLD_NAME=             Name=                          Both
LR_FLD_TYPE=             Data Type=                     Both
LR_FLD_POS=              Fixed Position=                Both
LR_FLD_LEN=              Length=                        Both
LR_FLD_DPS=              Decimal Places=                Both
LR_FLD_KEY=              Primary Key Sequence *=        Both
LR_FLD_EFFDATE=          Effective Date=                Both
LR_FLD_ORDINAL=          Ordinal Position=              Both
LR_FLD_OFFSET=           Ordinal Offset=                Both
LR_FLD_SCALE=            Scaling=                       Both
LR_FLD_FORMAT=           Date/Time Format=              Both
LR_FLD_SIGNED=           Signed=                        Both
LR_FLD_ALIGN=            Align Heading=                 Both
LR_FLD_MASK=             Numeric Mask=                  Both
LR_FLD_COLNAME=          DBMS ColName=                  Both
PF_ID=                   ID=                            Both
PF_NAME=                 Name=                          Both
```

PF_TYPE=	File Type=	Both
PF_ACCESS=	Access Method=	Both
PF_READ_EXIT=	Read Routine=	Both
PF_READ_PARMS=	Read Exit Parameters=	Both
PF_DD=	DD Name=	Both
PF_CONN=	Connection String=	Both
PF_TABLE=	Table Name=	Both
PF_ROW=	Row Format=	Both
PF_NULLS=	Return Null Indicator=	Both
PF_SQL=	SQL=	Both
PF_IN_DD=	Input DD Name=	Both
PF_IN_DSN=	DSN=	Both
PF_RD_DISP=	Read Disp=	Both
PF_RCLEN=	Record Length=	Both
PF_MAX_RCLEN=	Max Record Length=	Both
PF_OUT_DD=	Output DD Name=	Both
PF_OUT_DSN=	DSN=	Both
PF_DEV_TYPE=	Device Type=	Both
PF_UNIT=	Space Unit=	Both
PF_PRM_QTY=	Primary Qty=	Both
PF_SCND_QTY=	Secondary Qty=	Both
PF_DSORG=	DSORG=	Both
PF_RECFM=	RECFM=	Both
PF_LRECL=	LRECL=	Both
PF_BLKSIZE=	BLKSIZE=	Both
PF_WR_DISP=	Write DISP=	Both
PF_OPTCD=	OPTCD=	Both
PF_SYSOUT=	SysOut=	Both
PF_DSCB=	Model DSCB=	Both
PF_EXP_DT=	Expiry Date=	Both
PF_RETN=	Retention Period=	Both
VIEW_ID=	View ID=	Both
VIEW_NAME=	View Name=	Both
VIEW_LOGIC_ID=	View ID=	Both
VIEW_LOGIC_NAME=	View Name=	Both
VIEW_STATUS=	Status=	Both
VIEW_OUT_FRMT=	Output Format=	Both
VIEW_PAGE_LINES=	Lines Per Page=	Both
VIEW_WIDTH=	Reports Width=	Both
VIEW_FOLDER_ID=	View folder ID=	Both
VIEW_CR=	Control Record=	Both
VIEW_OUT_LF=	Output Logical File=	Both
VIEW_OUT_PF=	Output Physical File=	Both
VIEW_EXIT=	User Exit Name=	Both
VIEW_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_AGGREGATION=	Record Aggregation=	Both
VIEW_BUFF_SIZE=	Buffer Size=	Both
VIEW_OUT_LIMIT=	Output Limit=	Both
VIEW_FRMT_EXIT=	User Exit Name=	Both
VIEW_FRMT_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_FRMT_OUT_LIMIT=	Output Limit=	Both
VIEW_FLD_DELIM=	Field Delimiter=	Both
VIEW_STR_DELIM=	String Delimiter=	Both
VIEW_ERROR=	Error Fill Characters=	Both
VIEW_TRUNC=	Truncation Fill Characters=	Both
VIEW_FORMAT_REC_FILTER=	Record Filter=	Both
VIEW_HEADER_LEFT=	Header Left=	Both
VIEW_HEADER_CENTRE=	Header Centre=	Both
VIEW_HEADER_RIGHT=	Header Right=	Both
VIEW_FOOTER_LEFT=	Footer Left=	Both
VIEW_FOOTER_CENTRE=	Footer Centre=	Both
VIEW_FOOTER_RIGHT=	Footer Right=	Both
VIEW_SRC_ID=	Source ID=	Both
VIEW_SRC_LR=	Logical Record=	Both
VIEW_SRC_LF=	Logical File=	Both

```
VIEW_SRC_REC_FILTER=     Record Filter=                Both
VIEW_COL_ID=             Column ID=                    Both
VIEW_COL_NAME=           Name=                         Both
VIEW_HEADING1=           Heading 1=                    Both
VIEW_HEADING2=           Heading 2=                    Both
VIEW_HEADING3=           Heading 3=                    Both
VIEW_COL_STRT_POS=       Start Position=               Both
VIEW_COL_ORD_POS=        Ordinal Position=             Both
VIEW_COL_DATA_TYPE=      Data Type=                    Both
VIEW_COL_FRMT=           Date/Time Format=             Both
VIEW_COL_LEN=            Length=                       Both
VIEW_COL_ALIGN=          Data Alignment=               Both
VIEW_COL_VISIBLE=        Visible Flag=                 Both
VIEW_COL_SPACES=         Spaces before column=         Both
VIEW_COL_HDR_ALIGN=      Header Alignment=             Both
VIEW_COL_DPS=            Decimal Places=               Both
VIEW_COL_SCALE=          Scaling Factor=               Both
VIEW_COL_SIGN=           Signed Flag=                  Both
VIEW_COL_MASK=           Numeric Mask=                 Both
VIEW_COL_CALC=           Format Phase Calc=            Both
VIEW_REC_AGG_FUNC=       Record Agg Function=          Both
VIEW_GRP_AGG_FUNC=       Group Agg Function=           Both
VIEW_SORT_ID=            Sort Key ID=                  Both
VIEW_SORT_NUM=           Sort Key Number=              Both
VIEW_SORT_SEQ=           Sort Sequence=                Both
VIEW_SORT_DATA_TYPE=     Data Type=                    Both
VIEW_SORT_FORMAT=        Date/Time Format=             Both
VIEW_SORT_LEN=           Length=                       Both
VIEW_SORT_DPS=           Decimal Places=               Both
VIEW_SORT_SIGNED=        Signed=                       Both
VIEW_SORT_DISP_MODE=     Display Mode=                 Both
VIEW_SORT_LABEL=         Label=                        Both
VIEW_SORT_FOOTER=        Footer Label=                 Both
VIEW_SORT_HEADER_OPT=    Header Option=                Both
VIEW_SORT_FOOTER_OPT=    Footer Option=                Both
VIEW_SORT_TITLE_SRC=     Title View Source=            Both
VIEW_SORT_TITLE_FIELD=   Title Field=                  Both
VIEW_SORT_TITLE_EFFTYPE= Effective Date Type=          Both
VIEW_SORT_TITLE_EFF_DT=  Effective Date Value=         Both
VIEW_SORT_TITLE_LEN=     Title Length=                 Both
VIEW_COL_SRC_ID=         ID=                           Both
VIEW_COL_SRC_TYPE=       Column Source Type=           Both
VIEW_COL_LOGIC_TEXT=     Column Logic Text=            Both
VIEW_COL_SRC_VAL=        Column Source Value=          Both
VIEW_COL_LKP=            Column Lookup Path=           Both
VIEW_COL_LKP_LR=         Column Lookup LR=             Both
VIEW_COL_LKP_FIELD=      Column Lookup Field=          Both
VIEW_COL_SRC_FIELD=      Column Source Field=          Both
VIEW_COL_LOGIC=          Column Value=                 Both
*
*
```

4.4 Example Config: Reports for two VDPs

```
[VDPDIFF]
*       Character (*) in position 1 indicates a comment.
*
*       Input VDP DDNAMES
*       =================
IN_VDP1=DD:VDP1
IN_VDP2=DD:VDP2
*
*       OUTPUT DDNAMEs
*       ==============
*
*       CATALOG SUMMARY Reports
VDP1_CATALOG=DD:CAT1
VDP2_CATALOG=DD:CAT2
VDPC_CATALOG=DD:CATRPT
*
*       CATALOG DETAILED Reports
VDP1_CATALOG_REPORT=DD:CATDT1
VDP2_CATALOG_REPORT=DD:CATDT2
*
*       VIEW PROPERTIES Reports
VDP1_VIEW_REPORT=DD:VWRPT1
VDP2_VIEW_REPORT=DD:VWRPT2
VDPC_VIEW_REPORT=DD:VWRPT
*
*       VIEW LOGIC Reports
VDP1_VIEW_LOGIC_REPORT=DD:LOGRPT1
VDP2_VIEW_LOGIC_REPORT=DD:LOGRPT2
VDPC_VIEW_LOGIC_REPORT=DD:LOGRPT
*
*       USER EXIT ROUTINE Reports
VDP1_USER_EXIT_REPORT=DD:EXRPT1
VDP2_USER_EXIT_REPORT=DD:EXRPT2
VDPC_USER_EXIT_REPORT=DD:EXRPT
*
*       CONTROL RECORD Reports
VDP1_CONTROL_REC_REPORT=DD:CRRPT1
VDP2_CONTROL_REC_REPORT=DD:CRRPT2
VDPC_CONTROL_REC_REPORT=DD:CRRPT
*
*       PHYSICAL FILE Reports
VDP1_PF_REPORT=DD:PFRPT1
VDP2_PF_REPORT=DD:PFRPT2
VDPC_PF_REPORT=DD:PFRPT
*
*       LOGICAL FILE Reports
VDP1_LF_REPORT=DD:LFRPT1
VDP2_LF_REPORT=DD:LFRPT2
VDPC_LF_REPORT=DD:LFRPT
*
*       LOGICAL RECORD Reports
VDP1_LR_REPORT=DD:LRRPT1
VDP2_LR_REPORT=DD:LRRPT2
VDPC_LR_REPORT=DD:LRRPT
*
*       LOOKUP PATH Reports
VDP1_LKUP_REPORT=DD:LKRPT1
VDP2_LKUP_REPORT=DD:LKRPT2
VDPC_LKUP_REPORT=DD:LKRPT
*
```

```
*
[NODES]
*       DATABASE FIELD TABLE
*       ====================
*
* DATABASE FIELD         REPORT STRING                  USAGE
*****************************************************************
CR_ID=                   CR ID=                         Both
CR_NAME=                 CR Name=                       Both
CR_FISCAL=               First Fiscal Month=            Both
CR_BEGIN=                Beginning Period=              Both
CR_END=                  Ending Period=                 Both
CR_MAX_FILE=             Max Extr file Num=             Both
EXIT_ID=                 ExitID=                        Both
EXIT_NAME=               Name=                          Both
EXIT_TYPE=               Type=                          Both
EXIT_LANG=               Language=                      Both
EXIT_PATH=               Path=                          Both
EXIT_EXEC=               Executable=                    Both
EXIT_OPT=                Optimize Flag=                 Both
LF_ID=                   ID=                            Both
LF_NAME=                 Name=                          Both
LK_ID=                   ID=                            Both
LK_NAME=                 Name=                          Both
LK_SRC_LR=               Source Logical Record=         Both
LK_TRG_LR=               Target Logical Record=         Both
LK_TRG_LF=               Target Logical File=           Both
LK_KEY_TYPE=             Key Type=                      Both
LK_LR_FIELD=             LR Field=                      Both
LK_LR=                   LR=                            Both
LK_CONST=                Constant=                      Both
LK_CONST_LEN=            Constant Length=               Both
LK_SYM=                  Symbol=                        Both
LK_VAL=                  Default Value=                 Both
LK_VAL_LEN=              Value Length=                  Both
LK_DTYPE=                Data Type=                     Both
LK_KEY_LEN=              Length=                        Both
LK_DATE=                 Date/Time Format=              Both
LK_SCALE=                Scaling Factor=                Both
LK_DPS=                  Decimal Places=                Both
LK_SIGNED=               Signed=                        Both
LR_ID=                   ID=                            Both
LR_NAME=                 Name=                          Both
LR_TYPE=                 Type=                          Both
LR_STATUS=               Status=                        Both
LR_LKP_EXIT=             Lookup Exit=                   Both
LR_LKP_PARMS=            Lookup Exit Parms=             Both
LR_FLD_ID=               ID=                            Both
LR_FLD_NAME=             Name=                          Both
LR_FLD_TYPE=             Data Type=                     Both
LR_FLD_POS=              Fixed Position=                Both
LR_FLD_LEN=              Length=                        Both
LR_FLD_DPS=              Decimal Places=                Both
LR_FLD_KEY=              Primary Key Sequence *=        Both
LR_FLD_EFFDATE=          Effective Date=                Both
LR_FLD_ORDINAL=          Ordinal Position=              Both
LR_FLD_OFFSET=           Ordinal Offset=                Both
LR_FLD_SCALE=            Scaling=                       Both
LR_FLD_FORMAT=           Date/Time Format=              Both
LR_FLD_SIGNED=           Signed=                        Both
LR_FLD_ALIGN=            Align Heading=                 Both
LR_FLD_MASK=             Numeric Mask=                  Both
LR_FLD_COLNAME=          DBMS ColName=                  Both
PF_ID=                   ID=                            Both
PF_NAME=                 Name=                          Both
```

PF_TYPE=	File Type=	Both
PF_ACCESS=	Access Method=	Both
PF_READ_EXIT=	Read Routine=	Both
PF_READ_PARMS=	Read Exit Parameters=	Both
PF_DD=	DD Name=	Both
PF_CONN=	Connection String=	Both
PF_TABLE=	Table Name=	Both
PF_ROW=	Row Format=	Both
PF_NULLS=	Return Null Indicator=	Both
PF_SQL=	SQL=	Both
PF_IN_DD=	Input DD Name=	Both
PF_IN_DSN=	DSN=	Both
PF_RD_DISP=	Read Disp=	Both
PF_RCLEN=	Record Length=	Both
PF_MAX_RCLEN=	Max Record Length=	Both
PF_OUT_DD=	Output DD Name=	Both
PF_OUT_DSN=	DSN=	Both
PF_DEV_TYPE=	Device Type=	Both
PF_UNIT=	Space Unit=	Both
PF_PRM_QTY=	Primary Qty=	Both
PF_SCND_QTY=	Secondary Qty=	Both
PF_DSORG=	DSORG=	Both
PF_RECFM=	RECFM=	Both
PF_LRECL=	LRECL=	Both
PF_BLKSIZE=	BLKSIZE=	Both
PF_WR_DISP=	Write DISP=	Both
PF_OPTCD=	OPTCD=	Both
PF_SYSOUT=	SysOut=	Both
PF_DSCB=	Model DSCB=	Both
PF_EXP_DT=	Expiry Date=	Both
PF_RETN=	Retention Period=	Both
VIEW_ID=	View ID=	Both
VIEW_NAME=	View Name=	Both
VIEW_LOGIC_ID=	View ID=	Both
VIEW_LOGIC_NAME=	View Name=	Both
VIEW_STATUS=	Status=	Both
VIEW_OUT_FRMT=	Output Format=	Both
VIEW_PAGE_LINES=	Lines Per Page=	Both
VIEW_WIDTH=	Reports Width=	Both
VIEW_FOLDER_ID=	View folder ID=	Both
VIEW_CR=	Control Record=	Both
VIEW_OUT_LF=	Output Logical File=	Both
VIEW_OUT_PF=	Output Physical File=	Both
VIEW_EXIT=	User Exit Name=	Both
VIEW_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_AGGREGATION=	Record Aggregation=	Both
VIEW_BUFF_SIZE=	Buffer Size=	Both
VIEW_OUT_LIMIT=	Output Limit=	Both
VIEW_FRMT_EXIT=	User Exit Name=	Both
VIEW_FRMT_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_FRMT_OUT_LIMIT=	Output Limit=	Both
VIEW_FLD_DELIM=	Field Delimiter=	Both
VIEW_STR_DELIM=	String Delimiter=	Both
VIEW_ERROR=	Error Fill Characters=	Both
VIEW_TRUNC=	Truncation Fill Characters=	Both
VIEW_FORMAT_REC_FILTER=	Record Filter=	Both
VIEW_HEADER_LEFT=	Header Left=	Both
VIEW_HEADER_CENTRE=	Header Centre=	Both
VIEW_HEADER_RIGHT=	Header Right=	Both
VIEW_FOOTER_LEFT=	Footer Left=	Both
VIEW_FOOTER_CENTRE=	Footer Centre=	Both
VIEW_FOOTER_RIGHT=	Footer Right=	Both
VIEW_SRC_ID=	Source ID=	Both
VIEW_SRC_LR=	Logical Record=	Both
VIEW_SRC_LF=	Logical File=	Both

```
VIEW_SRC_REC_FILTER=     Record Filter=                Both
VIEW_COL_ID=             Column ID=                    Both
VIEW_COL_NAME=           Name=                         Both
VIEW_HEADING1=           Heading 1=                    Both
VIEW_HEADING2=           Heading 2=                    Both
VIEW_HEADING3=           Heading 3=                    Both
VIEW_COL_STRT_POS=       Start Position=               Both
VIEW_COL_ORD_POS=        Ordinal Position=             Both
VIEW_COL_DATA_TYPE=      Data Type=                    Both
VIEW_COL_FRMT=           Date/Time Format=             Both
VIEW_COL_LEN=            Length=                       Both
VIEW_COL_ALIGN=          Data Alignment=               Both
VIEW_COL_VISIBLE=        Visible Flag=                 Both
VIEW_COL_SPACES=         Spaces before column=         Both
VIEW_COL_HDR_ALIGN=      Header Alignment=             Both
VIEW_COL_DPS=            Decimal Places=               Both
VIEW_COL_SCALE=          Scaling Factor=               Both
VIEW_COL_SIGN=           Signed Flag=                  Both
VIEW_COL_MASK=           Numeric Mask=                 Both
VIEW_COL_CALC=           Format Phase Calc=            Both
VIEW_REC_AGG_FUNC=       Record Agg Function=          Both
VIEW_GRP_AGG_FUNC=       Group Agg Function=           Both
VIEW_SORT_ID=            Sort Key ID=                  Both
VIEW_SORT_NUM=           Sort Key Number=              Both
VIEW_SORT_SEQ=           Sort Sequence=                Both
VIEW_SORT_DATA_TYPE=     Data Type=                    Both
VIEW_SORT_FORMAT=        Date/Time Format=             Both
VIEW_SORT_LEN=           Length=                       Both
VIEW_SORT_DPS=           Decimal Places=               Both
VIEW_SORT_SIGNED=        Signed=                       Both
VIEW_SORT_DISP_MODE=     Display Mode=                 Both
VIEW_SORT_LABEL=         Label=                        Both
VIEW_SORT_FOOTER=        Footer Label=                 Both
VIEW_SORT_HEADER_OPT=    Header Option=                Both
VIEW_SORT_FOOTER_OPT=    Footer Option=                Both
VIEW_SORT_TITLE_SRC=     Title View Source=            Both
VIEW_SORT_TITLE_FIELD=   Title Field=                  Both
VIEW_SORT_TITLE_EFFTYPE= Effective Date Type=          Both
VIEW_SORT_TITLE_EFF_DT=  Effective Date Value=         Both
VIEW_SORT_TITLE_LEN=     Title Length=                 Both
VIEW_COL_SRC_ID=         ID=                           Both
VIEW_COL_SRC_TYPE=       Column Source Type=           Both
VIEW_COL_LOGIC_TEXT=     Column Logic Text=            Both
VIEW_COL_SRC_VAL=        Column Source Value=          Both
VIEW_COL_LKP=            Column Lookup Path=           Both
VIEW_COL_LKP_LR=         Column Lookup LR=             Both
VIEW_COL_LKP_FIELD=      Column Lookup Field=          Both
VIEW_COL_SRC_FIELD=      Column Source Field=          Both
VIEW_COL_LOGIC=          Column Value=                 Both
*
*
```

4.5 Example Config: Templates

For more details on templates, see:

- ***Section 2.3 Overview: Output Templates***
- ***Section 8 Output: Templates***

```
[VDPDIFF]
*       Character (*) in position 1 indicates a comment.
*
*       Input VDP DDNAMES
*       =================
IN_VDP1=DD:VDP1
*IN_VDP2=DD:VDP2
*
*       OUTPUT DDNAMEs
*       ==============
*
*       VIEW PROPERTIES Reports
VDP1_VIEW_REPORT=DD:VWRPT1
*VDP2_VIEW_REPORT=DD:VWRPT2
*VDPC_VIEW_REPORT=DD:VWRPT
*
*       LOGICAL RECORD Reports
VDP1_LR_REPORT=DD:LRRPT1
*VDP2_LR_REPORT=DD:LRRPT2
*VDPC_LR_REPORT=DD:LRRPT
*
*       TEMPLATES LIBRARY
FMTEMPLATES=DD:TMPLTS
*
*
[NODES]
*       DATABASE FIELD TABLE
*       ====================
*
* DATABASE FIELD         REPORT STRING                    USAGE
*****************************************************************
CR_ID=                   CR ID=                           Both
CR_NAME=                 CR Name=                         Both
CR_FISCAL=               First Fiscal Month=              Both
CR_BEGIN=                Beginning Period=                Both
CR_END=                  Ending Period=                   Both
CR_MAX_FILE=             Max Extr file Num=               Both
EXIT_ID=                 ExitID=                          Both
EXIT_NAME=               Name=                            Both
EXIT_TYPE=               Type=                            Both
EXIT_LANG=               Language=                        Both
EXIT_PATH=               Path=                            Both
EXIT_EXEC=               Executable=                      Both
EXIT_OPT=                Optimize Flag=                   Both
LF_ID=                   ID=                              Both
LF_NAME=                 Name=                            Both
LK_ID=                   ID=                              Both
LK_NAME=                 Name=                            Both
LK_SRC_LR=               Source Logical Record=           Both
LK_TRG_LR=               Target Logical Record=           Both
LK_TRG_LF=               Target Logical File=             Both
LK_KEY_TYPE=             Key Type=                        Both
LK_LR_FIELD=             LR Field=                        Both
```

LK_LR=	LR=	Both
LK_CONST=	Constant=	Both
LK_CONST_LEN=	Constant Length=	Both
LK_SYM=	Symbol=	Both
LK_VAL=	Default Value=	Both
LK_VAL_LEN=	Value Length=	Both
LK_DTYPE=	Data Type=	Both
LK_KEY_LEN=	Length=	Both
LK_DATE=	Date/Time Format=	Both
LK_SCALE=	Scaling Factor=	Both
LK_DPS=	Decimal Places=	Both
LK_SIGNED=	Signed=	Both
LR_ID=	ID=	Both
LR_NAME=	Name=	Both
LR_TYPE=	Type=	Both
LR_STATUS=	Status=	Both
LR_LKP_EXIT=	Lookup Exit=	Both
LR_LKP_PARMS=	Lookup Exit Parms=	Both
LR_FLD_ID=	ID=	Both
LR_FLD_NAME=	Name=	Both
LR_FLD_TYPE=	Data Type=	Both
LR_FLD_POS=	Fixed Position=	Both
LR_FLD_LEN=	Length=	Both
LR_FLD_DPS=	Decimal Places=	Both
LR_FLD_KEY=	Primary Key Sequence *=	Both
LR_FLD_EFFDATE=	Effective Date=	Both
LR_FLD_ORDINAL=	Ordinal Position=	Both
LR_FLD_OFFSET=	Ordinal Offset=	Both
LR_FLD_SCALE=	Scaling=	Both
LR_FLD_FORMAT=	Date/Time Format=	Both
LR_FLD_SIGNED=	Signed=	Both
LR_FLD_ALIGN=	Align Heading=	Both
LR_FLD_MASK=	Numeric Mask=	Both
LR_FLD_COLNAME=	DBMS ColName=	Both
PF_ID=	ID=	Both
PF_NAME=	Name=	Both
PF_TYPE=	File Type=	Both
PF_ACCESS=	Access Method=	Both
PF_READ_EXIT=	Read Routine=	Both
PF_READ_PARMS=	Read Exit Parameters=	Both
PF_DD=	DD Name=	Both
PF_CONN=	Connection String=	Both
PF_TABLE=	Table Name=	Both
PF_ROW=	Row Format=	Both
PF_NULLS=	Return Null Indicator=	Both
PF_SQL=	SQL=	Both
PF_IN_DD=	Input DD Name=	Both
PF_IN_DSN=	DSN=	Both
PF_RD_DISP=	Read Disp=	Both
PF_RCLEN=	Record Length=	Both
PF_MAX_RCLEN=	Max Record Length=	Both
PF_OUT_DD=	Output DD Name=	Both
PF_OUT_DSN=	DSN=	Both
PF_DEV_TYPE=	Device Type=	Both
PF_UNIT=	Space Unit=	Both
PF_PRM_QTY=	Primary Qty=	Both
PF_SCND_QTY=	Secondary Qty=	Both
PF_DSORG=	DSORG=	Both
PF_RECFM=	RECFM=	Both
PF_LRECL=	LRECL=	Both
PF_BLKSIZE=	BLKSIZE=	Both
PF_WR_DISP=	Write DISP=	Both
PF_OPTCD=	OPTCD=	Both
PF_SYSOUT=	SysOut=	Both
PF_DSCB=	Model DSCB=	Both

PF_EXP_DT=	Expiry Date=	Both
PF_RETN=	Retention Period=	Both
VIEW_ID=	View ID=	Both
VIEW_NAME=	View Name=	Both
VIEW_LOGIC_ID=	View ID=	Both
VIEW_LOGIC_NAME=	View Name=	Both
VIEW_STATUS=	Status=	Both
VIEW_OUT_FRMT=	Output Format=	Both
VIEW_PAGE_LINES=	Lines Per Page=	Both
VIEW_WIDTH=	Reports Width=	Both
VIEW_FOLDER_ID=	View folder ID=	Both
VIEW_CR=	Control Record=	Both
VIEW_OUT_LF=	Output Logical File=	Both
VIEW_OUT_PF=	Output Physical File=	Both
VIEW_EXIT=	User Exit Name=	Both
VIEW_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_AGGREGATION=	Record Aggregation=	Both
VIEW_BUFF_SIZE=	Buffer Size=	Both
VIEW_OUT_LIMIT=	Output Limit=	Both
VIEW_FRMT_EXIT=	User Exit Name=	Both
VIEW_FRMT_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_FRMT_OUT_LIMIT=	Output Limit=	Both
VIEW_FLD_DELIM=	Field Delimiter=	Both
VIEW_STR_DELIM=	String Delimiter=	Both
VIEW_ERROR=	Error Fill Characters=	Both
VIEW_TRUNC=	Truncation Fill Characters=	Both
VIEW_FORMAT_REC_FILTER=	Record Filter=	Both
VIEW_HEADER_LEFT=	Header Left=	Both
VIEW_HEADER_CENTRE=	Header Centre=	Both
VIEW_HEADER_RIGHT=	Header Right=	Both
VIEW_FOOTER_LEFT=	Footer Left=	Both
VIEW_FOOTER_CENTRE=	Footer Centre=	Both
VIEW_FOOTER_RIGHT=	Footer Right=	Both
VIEW_SRC_ID=	Source ID=	Both
VIEW_SRC_LR=	Logical Record=	Both
VIEW_SRC_LF=	Logical File=	Both
VIEW_SRC_REC_FILTER=	Record Filter=	Both
VIEW_COL_ID=	Column ID=	Both
VIEW_COL_NAME=	Name=	Both
VIEW_HEADING1=	Heading 1=	Both
VIEW_HEADING2=	Heading 2=	Both
VIEW_HEADING3=	Heading 3=	Both
VIEW_COL_STRT_POS=	Start Position=	Both
VIEW_COL_ORD_POS=	Ordinal Position=	Both
VIEW_COL_DATA_TYPE=	Data Type=	Both
VIEW_COL_FRMT=	Date/Time Format=	Both
VIEW_COL_LEN=	Length=	Both
VIEW_COL_ALIGN=	Data Alignment=	Both
VIEW_COL_VISIBLE=	Visible Flag=	Both
VIEW_COL_SPACES=	Spaces before column=	Both
VIEW_COL_HDR_ALIGN=	Header Alignment=	Both
VIEW_COL_DPS=	Decimal Places=	Both
VIEW_COL_SCALE=	Scaling Factor=	Both
VIEW_COL_SIGN=	Signed Flag=	Both
VIEW_COL_MASK=	Numeric Mask=	Both
VIEW_COL_CALC=	Format Phase Calc=	Both
VIEW_REC_AGG_FUNC=	Record Agg Function=	Both
VIEW_GRP_AGG_FUNC=	Group Agg Function=	Both
VIEW_SORT_ID=	Sort Key ID=	Both
VIEW_SORT_NUM=	Sort Key Number=	Both
VIEW_SORT_SEQ=	Sort Sequence=	Both
VIEW_SORT_DATA_TYPE=	Data Type=	Both
VIEW_SORT_FORMAT=	Date/Time Format=	Both
VIEW_SORT_LEN=	Length=	Both
VIEW_SORT_DPS=	Decimal Places=	Both

```
VIEW_SORT_SIGNED=         Signed=                        Both
VIEW_SORT_DISP_MODE=      Display Mode=                  Both
VIEW_SORT_LABEL=          Label=                         Both
VIEW_SORT_FOOTER=         Footer Label=                  Both
VIEW_SORT_HEADER_OPT=     Header Option=                 Both
VIEW_SORT_FOOTER_OPT=     Footer Option=                 Both
VIEW_SORT_TITLE_SRC=      Title View Source=             Both
VIEW_SORT_TITLE_FIELD=    Title Field=                   Both
VIEW_SORT_TITLE_EFFTYPE=  Effective Date Type=           Both
VIEW_SORT_TITLE_EFF_DT=   Effective Date Value=          Both
VIEW_SORT_TITLE_LEN=      Title Length=                  Both
VIEW_COL_SRC_ID=          ID=                            Both
VIEW_COL_SRC_TYPE=        Column Source Type=            Both
VIEW_COL_LOGIC_TEXT=      Column Logic Text=             Both
VIEW_COL_SRC_VAL=         Column Source Value=           Both
VIEW_COL_LKP=             Column Lookup Path=            Both
VIEW_COL_LKP_LR=          Column Lookup LR=              Both
VIEW_COL_LKP_FIELD=       Column Lookup Field=           Both
VIEW_COL_SRC_FIELD=       Column Source Field=           Both
VIEW_COL_LOGIC=           Column Value=                  Both
*
*
```

5 Output: Run Report

The run report is produced for every run of the VDP Analyzer.

5.1 Example Run Report: Reports for one VDP

```
IBM Scalable Architecture for Financial Reporting (SAFR)
IP Asset Family Component ID 6949-17P
Performance Engine (MVS) - Base Product
Build PM 4.16.000 D

GVBVDPDF - VDP Compare Process
Built:    2015-02-19 21:45

Executed: 2015-05-05 14:04:24

INFO: Config from DD:CFG
Configuration Summary:
Detail VDP File:VDP 1 DD:VDP1
Write Catalogue for VDP 1 to DD:CAT1
Write VDP1 Catalogue Detail report to DD:CATDT1
Write View source records to DD:VWRPT1
Write View Logic source records to DD:LOGRPT1
Write Lookup source records to DD:LKRPT1
Write Logical Record source records to DD:LRRPT1
Write Logical File source records to DD:LFRPT1
Write Physical File source records to DD:PFRPT1
Write Control Record source records to DD:CRRPT1
Write Exit source records to DD:EXRPT1

VDP1:
Date created 2015/5/5
From Environment 1
VDP Version 11
Created By XML Converter 4.16.000   z/OS

Detail All Source View Records to DD:VWRPT1
Detail All Source View Logic Records to DD:LOGRPT1
Detail All Source Lookup Records to DD:LKRPT1
Detail All Source Logical Record Records to DD:LRRPT1
Detail All Source Logical File Records to DD:LFRPT1
Detail All Source Physical File Records to DD:PFRPT1
Detail All Source Control Record Records to DD:CRRPT1
Detail All Source Exit Records to DD:EXRPT1
```

5.2 Example Run Report: Reports for two VDPs

```
IBM Scalable Architecture for Financial Reporting (SAFR)
IP Asset Family Component ID 6949-17P
Performance Engine (MVS) - Base Product
Build PM 4.16.000 D

GVBVDPDF - VDP Compare Process
Built:    2015-02-19 21:45

Executed: 2015-05-07 10:01:18

INFO: Config from DD:CFG
Configuration Summary:
Compare VDP Files
VDP 1: DD:VDP1
VDP 2: DD:VDP2
Write Catalogue for VDP 1 to DD:CAT1
Write Catalogue for VDP 2 to DD:CAT2
Write Catalogue Difference report to DD:CATRPT
Write VDP1 Catalogue Detail report to DD:CATDT1
Write VDP2 Catalogue Detail report to DD:CATDT2
Write View source records to DD:VWRPT1
Write View target records to DD:VWRPT2
Write View comparison records to DD:VWRPT
Write View Logic source records to DD:LOGRPT1
Write View Logic target records to DD:LOGRPT2
Write View Logic comparison records to DD:LOGRPT
Write Lookup source records to DD:LKRPT1
Write Lookup target records to DD:LKRPT2
Write Lookup comparison records to DD:LKRPT
Write Logical Record source records to DD:LRRPT1
Write Logical Record target records to DD:LRRPT2
Write Logical Record comparison records to DD:LRRPT
Write Logical File source records to DD:LFRPT1
Write Logical File target records to DD:LFRPT2
Write Logical File comparison records to DD:LFRPT
Write Physical File source records to DD:PFRPT1
Write Physical File target records to DD:PFRPT2
Write Physical File comparison records to DD:PFRPT
Write Control Record source records to DD:CRRPT1
Write Control Record target records to DD:CRRPT2
Write Control Record comparison records to DD:CRRPT
Write Exit source records to DD:EXRPT1
Write Exit target records to DD:EXRPT2
Write Exit comparison records to DD:EXRPT

VDP1:
Date created 2015/5/5
From Environment 1
VDP Version 11
Created By XML Converter 4.16.000   z/OS

VDP2:
Date created 2015/5/7
From Environment 1
VDP Version 11
Created By XML Converter 4.16.000   z/OS

Detail All Source View Records to DD:VWRPT1
Detail All Target View Records to DD:VWRPT2
View Number of differences: 0
```

```
Detail All Source View Logic Records to DD:LOGRPT1
Detail All Target View Logic Records to DD:LOGRPT2
View Logic Number of differences: 1

Detail All Source Lookup Records to DD:LKRPT1
Detail All Target Lookup Records to DD:LKRPT2
Lookup Number of differences: 0

Detail All Source Logical Record Records to DD:LRRPT1
Detail All Target Logical Record Records to DD:LRRPT2
Logical Record Number of differences: 0

Detail All Source Logical File Records to DD:LFRPT1
Detail All Target Logical File Records to DD:LFRPT2
Logical File Number of differences: 0

Detail All Source Physical File Records to DD:PFRPT1
Detail All Target Physical File Records to DD:PFRPT2
Physical File Number of differences: 1

Detail All Source Control Record Records to DD:CRRPT1
Detail All Target Control Record Records to DD:CRRPT2
Control Record Number of differences: 0

Detail All Source Exit Records to DD:EXRPT1
Detail All Target Exit Records to DD:EXRPT2
Exit Number of differences: 0
```

5.3 Example Run Report: Templates

```
IBM Scalable Architecture for Financial Reporting (SAFR)
IP Asset Family Component ID 6949-17P
Performance Engine (MVS) - Base Product
Build PM 4.16.000 D

GVBVDPDF - VDP Compare Process
Built:    2015-02-19 21:45

Executed: 2015-04-30 14:13:09

INFO: Config from DD:CFG
Configuration Summary:
Detail VDP File:VDP 1 DD:VDP1
Write View source records to DD:VWRPT1
Write Logical Record source records to DD:LRRPT1

File Manager Mode
Write DD:TMPLTS(VF8462)
SKL 2 col TYP_CODE view 8462
SKL 2 SKTitleL 0 DT 77 CTs 1
Write DD:TMPLTS(EXTR0001)
First DT @15
DT position 15L2
DT position 17L20
DT position 37L8
DT position 45L8
SK position 13L2
DT position 53L20
DT position 73L1
DT position 74L8
DT position 82L8
DT position 90L2
CT position formula based on ct num 92L1 CT0
Write DD:TMPLTS(LR917)
```

6 Output: VDP Reports

6.1 Examples: Catalog Summary reports

This report has a simple list of the components in a VDP file.

There are three catalog summary reports: for VDP1, for VDP2 and a comparison.

This report can be compared to the longer catalog detailed reports. Both reports have the same heading: "**VDP Record Summary Report**".

6.1.1 Catalog summary report

```
VDP Record Summary Report
-------------------------
VDP Run Date           20130627
--------------------------------------------------------------------------------
Component Type         Count
--------------------------------------------------------------------------------
User Exit Routines         2
Control Records            1
Physical Files             4
Logical Files              5
Logical Records            2
Lookup Paths               1
Views                      2

--------------------------------------------------------------------------------
Component Type             ID  Name
--------------------------------------------------------------------------------
User Exit Routine         318  RIT_FormatExit
User Exit Routine         319  RIT_WriteExit

Control Record              1  Default_Install

Physical File            8549  ExtractOut
Physical File            8595  RIT_PF
Physical File            8596  RIT_PF_EXIT
Physical File            8597  RIT_FORMAT_PF

Logical File             2115  ExtractOut
Logical File             2173  RIT_LF
Logical File             2174  RIT_LF_TO_EXIT
Logical File             2175  RIT_LKUP_LF
Logical File             2176  RIT_FORMAT_LF

Logical Record           2654  RIT_AllTypesIndexed_LR
Logical Record           2655  RIT_AllTypes_LR

Lookup Path              2893  RIT_SIMPLE_LK

View                     9100  Recursive_Lookup
View                    10999  RIT_FORMAT_WORKS_VW
```

6.1.2 Catalog summary report for two VDPs

```
VDP Record Summary Report
-------------------------
VDP Run Date            20150505    20150507
--------------------------------------------------------------------------------
Component Type        VDP1 Count  VDP2 Count
--------------------------------------------------------------------------------
User Exit Routines          0           0
Control Records             1           1
Physical Files              1           1
Logical Files               1           1
Logical Records             1           1
Lookup Paths                0           0
Views                       1           1

--------------------------------------------------------------------------------
Component Type             ID  VDP1                VDP2
--------------------------------------------------------------------------------
View Logic               8590  does not match      does not match

Physical File            6384  does not match      does not match
```

To research these differences, see ***Section 7 How to investigate differences***.

6.2 Examples: Catalog Detailed reports

This report can be compared to the shorter catalog summary reports. Both reports have the same heading: "**VDP Record Summary Report**".

This report repeats the catalog summary report and adds extra detail for:

- logical files,
- logical records,
- lookup paths and
- views.

There are only two catalog detailed reports: for VDP1 and for VDP2.

6.2.1 Catalog detailed report

```
VDP Record Summary Report
-------------------------
VDP Run Date           20130627

--------------------------------------------------------------------------------
Component Type         Count
--------------------------------------------------------------------------------
User Exit Routines         2
Control Records            1
Physical Files             4
Logical Files              5
Logical Records            2
Lookup Paths               1
Views                      2


--------------------------------------------------------------------------------
Component Type             ID  Name
--------------------------------------------------------------------------------
User Exit Routine         318  RIT_FormatExit
User Exit Routine         319  RIT_WriteExit

Control Record              1  Default_Install

Physical File            8549  ExtractOut
Physical File            8595  RIT_PF
Physical File            8596  RIT_PF_EXIT
Physical File            8597  RIT_FORMAT_PF

Logical File             2115  ExtractOut
  PF ID           PF Name
  8549            ExtractOut
Logical File             2173  RIT_LF
  PF ID           PF Name
  8595            RIT_PF
Logical File             2174  RIT_LF_TO_EXIT
  PF ID           PF Name
  8596            RIT_PF_EXIT
Logical File             2175  RIT_LKUP_LF
  PF ID           PF Name
  8595            RIT_PF
Logical File             2176  RIT_FORMAT_LF
  PF ID           PF Name
  8597            RIT_FORMAT_PF
```

```
Logical Record          2654  RIT_AllTypesIndexed_LR
  Field ID        Field Name                                        Data Type
  108776          Alphanumeric                                      ALNUM
  108777          Binary1                                           BINRY
  108778          SBinary1                                          BINRY
  108779          Binary2                                           BINRY
  108780          SBinary2                                          BINRY
  108781          SBinary4                                          BINRY
  108782          Binary4                                           BINRY
  108783          Binary8                                           BINRY
  108784          BCD                                               BCD
  108785          BSORT                                             BSORT
  108786          EDNUM                                             EDNUM
  108787          MSNUM                                             MSKNM
  108788          ZONED                                             NUMER
  108789          UZONED                                            NUMER
  108790          UPACKED                                           PACKD
  108791          PACKED                                            PACKD
  108792          PACKED2DP                                         PACKD
  108793          PSORT                                             PSORT
3052            PrimaryKey1                                     1       108776
Logical Record          2655  RIT_AllTypes_LR
  Field ID        Field Name                                        Data Type
  108757          Description                                       ALNUM
  108758          Alphanumeric                                      ALNUM
  108759          SBinary1                                          BINRY
  108760          Binary1                                           BINRY
  108761          SBinary2                                          BINRY
  108762          Binary2                                           BINRY
  108763          Binary4                                           BINRY
  108764          SBinary4                                          BINRY
  108765          Binary8                                           BINRY
  108766          BCD                                               BCD
  108767          BSORT                                             BSORT
  108768          EDNUM                                             EDNUM
  108769          MSNUM                                             MSKNM
  108770          ZONED                                             NUMER
  108771          UZONED                                            NUMER
  108772          UPACKED                                           PACKD
  108773          PACKED2DP                                         PACKD
  108774          PACKED                                            PACKD
  108775          PSORT                                             PSORT

Lookup Path             2893  RIT_SIMPLE_LK
                      Step   Seq Num    Src LR  Field ID    Trg LR  Trg File
  2893                   1         1      2655    108758      2654      2175

View                    9100  Recursive_Lookup
      Extract to ExtractOut
   Src Num      LR      LF
         1    2654    2175
  Number of columns: 3
  Extract Length: 21(3)
  Number of sort keys: 1
View                   10999  RIT_FORMAT_WORKS_VW
      Detail output to RIT_FORMAT_PF
   Src Num      LR      LF
         1    2655    2174
         2    2655    2173
  Number of columns: 4
  Extract Length: 38(4)
  Number of sort keys: 1
```

6.3 Examples: Control Record reports

6.3.1 Control record report

```
Control Record Report
*-------------------------------------------------------------------------
  CR ID                       58
  CR Name                     MYCO_1_START_1
  First Fiscal Month          1
  Beginning Period            1
  Ending Period               12
  Max Extr file Num           1

Total Number of Control Record records: 1
```

6.3.2 Control record comparison report 1

If the VDPs have control records with different ID numbers, an example is:

```
Control Record Comparison
-------------------------
Compared :  All
*-------------------------------------------------------------------------
  ID                          1
-  VDP1                       exists
-  VDP2                       missing
*-------------------------------------------------------------------------
  ID                          83
-  VDP1                       missing
-  VDP2                       exists


Total Number of Differences: 2
```

6.3.3 Control record comparison report 2

If the VDPs have control records with the same ID number but different data, an example is:

```
Control Record Comparison
-------------------------
Compared :  All
*-------------------------------------------------------------------------
  CR ID                       83
  CR Name                     MYCO_Control
  First Fiscal Month
-  VDP1                       3
-  VDP2                       1


Total Number of Differences: 1
```

6.4 Examples: Logical File reports

6.4.1 Logical file report

```
Logical File Report
*---------------------------------------------------------------------
  ID                          1391
  Name                        DATA_PRODUCT
  Associated Physical Files
    DATA_PRODUCT 8449
*---------------------------------------------------------------------
  ID                          1392
  Name                        DATA_SALES
  Associated Physical Files
    DATA_SALES 8450
Total Number of Logical File records: 2
```

6.4.2 Logical file comparison report 1

If the VDPs have logical files with different ID numbers, an example is:

```
Logical File Comparison
-----------------------
Compared :  All
*---------------------------------------------------------------------
  ID            1391
-  VDP1         exists
-  VDP2         missing
*---------------------------------------------------------------------
  ID            200
-  VDP1         missing
-  VDP2         exists
*---------------------------------------------------------------------
  ID            755
-  VDP1         missing
-  VDP2         exists
Total Number of Differences: 3
```

6.4.3 Logical file comparison report 2

If the VDPs have logical files with the same ID number but different data, an example is:

```
Logical File Comparison
-----------------------
Compared :  All
*---------------------------------------------------------------------
  ID                          200
  Name                        PRODUCTS
  Associated Physical Files
  ID        557
-  VDP1     exists
-  VDP2     missing
  ID        558
-  VDP1     missing
-  VDP2     exists
Total Number of Differences: 2
```

6.5 Examples: Logical Record reports

6.5.1 Logical record report

```
Logical Record Report
*---------------------------------------------------------------------------
  ID                          917
  Name                        PRODUCT_TYPE
  Type                        Logical File
  Status                      Active
  Lookup Exit
  Lookup Exit Parms
  LR Fields

    ID                        61252
    Name                      TYP_CODE
    Data Type                 Alphanumeric
    Fixed Position            1
    Length                    2
    Decimal Places            0
    Primary Key Sequence *    1
    Effective Date
    Ordinal Position          1
    Ordinal Offset            0
    Scaling                   0
    Date/Time Format          NONE
    Signed                    No
    Align Heading             Left
    Numeric Mask
    DBMS ColName

    ID                        61253
    Name                      TYP_DESC
    Data Type                 Alphanumeric
    Fixed Position            3
    Length                    20
    Decimal Places            0
    Primary Key Sequence *
    Effective Date
    Ordinal Position          2
    Ordinal Offset            0
    Scaling                   0
    Date/Time Format          NONE
    Signed                    No
    Align Heading             Left
    Numeric Mask
    DBMS ColName

    ID                        61254
    Name                      EFF_START_DATE
    Data Type                 Alphanumeric
    Fixed Position            23
    Length                    8
    Decimal Places            0
    Primary Key Sequence *
    Effective Date            Start Date
    Ordinal Position          3
    Ordinal Offset            0
    Scaling                   0
    Date/Time Format          CYMD
    Signed                    No
    Align Heading             Left
    Numeric Mask
```

```
    DBMS ColName

    ID                          61255
    Name                        EFF_END_DATE
    Data Type                   Alphanumeric
    Fixed Position              31
    Length                      8
    Decimal Places              0
    Primary Key Sequence *
    Effective Date              End Date
    Ordinal Position            4
    Ordinal Offset              0
    Scaling                     0
    Date/Time Format            CYMD
    Signed                      No
    Align Heading               Left
    Numeric Mask                PYN1Y
    DBMS ColName

Total Number of Logical Record records: 1
```

6.5.2 Logical record comparison report 1

```
Logical Record Comparison
-------------------------
Compared :  All
*-------------------------------------------------------------------------
  ID                          1390
  Name                        DATA_PRODUCT
  LR Fields

    ID                        78943
-    VDP1                   exists
-    VDP2                   missing

    ID                        78947
-    VDP1                   missing
-    VDP2                   exists
*-------------------------------------------------------------------------
  ID                          1391
  Name                        DATA_SALES
  LR Fields

    ID                        78946
-    VDP1                   exists
-    VDP2                   missing

Total Number of Differences: 3
```

This report shows the two VDPs differ on logical records as follows:

- Logical record 1390 has field 78943 in VDP1 and field 78947 in VDP2.
- Logical record 1391 has field 78946 in VDP1, but this field is missing in VDP2.

6.5.3 Logical record comparison report 2

```
Logical Record Comparison
-------------------------
Compared :  All
*-------------------------------------------------------------------------
  ID                          2658
  Name                        RIT_AllTypes_LR2
  LR Fields

    ID                        108841
    Name                      BSORT
    Fixed Position
-    VDP1                     59
-    VDP2                     55

    ID                        108842
-    VDP1                     exists
-    VDP2                     missing

    ID                        108843
    Name
-    VDP1                     MSNUM
-    VDP2                     MSNUMD
    Fixed Position
-    VDP1                     67
-    VDP2                     59
    Ordinal Position
-    VDP1                     10
-    VDP2                     9
```

This report shows the two VDPs differ on logical record 2658 as follows:

- Field 108841 is Fixed Position 59 in VDP1 and 55 in VDP2.
- Field 108842 is part of VDP1, but not VDP2.
- Field 108843 is called MSNUM in VDP1 and MSNUMD in VDP2.
- Field 108843 is Fixed Position 67 VDP1 and 59 in VDP2.
- Field 108843 is Ordinal Position 10 VDP1 and 9 in VDP2.

6.6 Examples: Lookup Path reports

6.6.1 Lookup path report

```
Lookup Path Report
*---------------------------------------------------------------------
  ID                          2017
  Name                        LP_PRODUCT_Desc
  Lookup Steps
  Step Number 1
    Source Logical Record     DATA_SALES 1391
    Target Logical Record     DATA_PRODUCT 1390
    Target Logical File       DATA_PRODUCT 1391
    Source Field Properties
      Source Field Seq Num 1
        Key Type              LR Field
        LR Field              Sales_Product
        LR                    DATA_SALES
        Data Attributes
          Data Type           Alphanumeric
          Length              10
          Date/Time Format    NONE
          Scaling Factor      0
          Decimal Places      0
          Signed              0

Total Number of Lookup records: 1
```

6.6.2 Lookup path comparison report

```
Lookup Path Comparison
----------------------
Compared :  All
*---------------------------------------------------------------------
  ID                          2017
-  VDP1                      exists
-  VDP2                      missing
*---------------------------------------------------------------------
  ID                          930
-  VDP1                      missing
-  VDP2                      exists


Total Number of Differences: 2
```

This shows the differences as VDP1 using Lookup Path 2017, and VDP2 using Lookup Path 930.

6.7 Examples: Physical File reports

6.7.1 Physical file report

```
Physical File Report
*---------------------------------------------------------------------
  ID                          6384
  Name                        PRODUCT_TYPE
  File Type                   Disk File
  Access Method               Sequential Standard
  Dataset Input Attributes
    Input DD Name             PRODTYPE
    DSN                       $HLQ.F0008590
    Read Disp                 SHR
    Record Length             0
    Max Record Length         0
  Dataset Output Attributes
    Output DD Name            F0008590
    DSN                       $HLQ.F0008590
    Device Type               SYSDA
    Space Unit                Tracks
    Primary Qty               1
    Secondary Qty             1
    DSORG                     Physical Sequential
    RECFM                     VB
    LRECL                     27994
    BLKSIZE                   0
    Write DISP                New,Catalog,Delete
    OPTCD
    SysOut
    Model DSCB
    Expiry Date               20150505
    Retention Period          0

Total Number of Physical File records: 1
```

6.7.2 Physical file comparison report

```
Physical File Comparison
------------------------
Compared :  All
*-------------------------------------------------------------------------
  ID                          557
-  VDP1                      exists
-  VDP2                      missing
*-------------------------------------------------------------------------
  ID                          6409
  Name                        Product_Type_Count
  Dataset Output Attributes
    Expiry Date
-    VDP1                     20150512
-    VDP2                     20150513
*-------------------------------------------------------------------------
  ID                          8450
  Name                        DATA_SALES
  Dataset Output Attributes
    Expiry Date
-    VDP1                     20150512
-    VDP2                     20150513
*-------------------------------------------------------------------------
  ID                          558
-  VDP1                      missing
-  VDP2                      exists


Total Number of Differences: 4
```

This report shows the following differences:

- VDP1 uses physical file 557 but VDP2 does not.
- For physical file 6409, the expiry date is May 12, 2015 for VDP1 and May 13 for VDP2.
- For physical file 8450, the expiry date is May 12, 2015 for VDP1 and May 13 for VDP2.
- VDP2 uses physical file 558 but VDP1 does not.

6.8 Examples: User Exit Routine reports

6.8.1 User exit routine report

```
User Exit Routine Report
*---------------------------------------------------------------------
  ExitID                      207
  Name                        MYCO_UER_12
  Type                        WRITE
  Language                    C
  Path                        ./
  Executable
  Optimize Flag               0

Total Number of Exit records: 1
```

6.8.2 User exit routine comparison report

```
User Exit Routine Comparison
----------------------------
Compared :  All
*---------------------------------------------------------------------
  ID                          207
-  VDP1                      exists
-  VDP2                      missing


Total Number of Differences: 1
```

This shows the difference: VDP1 uses a User Exit Routine, but VDP2 does not.

6.9 Examples: View Logic reports

6.9.1 View logic report

```
View Logic Report
*-------------------------------------------------------------------------
  View ID                     8590
  View Name                   Use_All_LogicText
  Format Phase
    Record Filter
      SELECTIF(COL.11 > 100)
      ' Select records where Number greater than 100

  View Sources
    View Source 1
      Source ID               13486
      Logical Record          PRODUCT_TYPE 917
      Logical File            PRODUCT_TYPE 959
      Record Filter
        SKIPIF ({TYP_CODE} = "ABC")
        ' Ignore Type Code ABC

  Column Logic
    Column Number 7
      Column Source Properties 1
        Column Logic Text
          ' Make blank type codes easy to find
          IF      {TYP_CODE} = " "
          THEN
          COLUMN = "ERROR"
          ENDIF

    Column Number 10
      Column Source Properties 1
        Column Logic Text
          ' Set this column to the Runday
          COLUMN = RUNDAY()

    Column Number 11
      Format Phase Calc
        COLUMN = 3.142
        ' Set constant value


Total Number of View Logic records: 1
```

Bold letters were added to the above report for this document only.
The above example contains the four different types of logic text:

- Extract Record Filter – under "**Record Filter**" under "**View Source 1**".
- Extract Column Assignment – under "**Column Logic Text**" (two examples above).
- Format Phase Calculation – under "**Format Phase Calc**".
- Format Record Filter – under "**Record Filter**" under "**Format Phase**".

6.9.2 View logic comparison report

```
View Logic Comparison
---------------------
Compared :  All
*-------------------------------------------------------------------------
  View ID                      8590
  View Name                    Use_All_LogicText
  Column Logic
    Column Number 11
      Format Phase Calc
-      VDP1
        COLUMN = 3.142
        ' Set constant value
-      VDP2
        COLUMN = 1.618
        ' Set constant value


Total Number of Differences: 1
```

This shows the difference as Format Phase Calculation logic text in column 11. In VDP1, the column is set to 3.142, compared to 1.618 in VDP2.

6.10 Examples: View Properties reports

6.10.1 View properties report

```
View Properties Report
*---------------------------------------------------------------------
  View ID                     8590
  View Name                   Use_All_LogicText
  Status                      Active
  Output Format               File
  View Type                   Detail
  Lines Per Page              66
  Report Width                250
  View folder ID              680
  Control Record              MYCO_1_START_1
  Extract Phase
    Output Logical File
    Output Physical File      Auto-generated Name for Extract Phase Output
    User Exit Name
    User Exit Parameters
    Record Aggregation        0
    Buffer Size               2000
    Output Limit              0
  Format Phase
    Output Logical File
    Output Physical File      PRODUCT_TYPE
    Extract Work File Number  1
    User Exit Name
    User Exit Parameters
    Output Limit              0
    Field Delimiter           Fixed Width - Position & Length
    String Delimiter          No String Delimiter
    Error Fill Characters     **********************************************
                              *****************
    Truncation Fill Characters##################################################
                              ##################
    Record Filter             ***see View Logic Report***
  View Sources
    View Source 1
      Source ID               13486
      Logical Record          PRODUCT_TYPE 917
      Logical File            PRODUCT_TYPE 959
      Record Filter           ***see View Logic Report***
  Column Properties
    Column Data
      Column ID               200826
      Name                    Column Number 1
      Ordinal Position        1
      Extract Area            AREDT
      Column Output Properties
        Heading 1             TYP_CODE
        Heading 2
        Heading 3
        Start Position        1
        Data Type             Alphanumeric
        Date/Time Format      NONE
        Length                2
        Data Alignment        Left
        Visible Flag          1
        Spaces before column  0
        Header Alignment      Center
        Decimal Places        0
```

```
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259432
      Column Source Type    Constant
      Column Source Value
  Column Data
    Column ID               200827
    Name                    Column Number 2
    Ordinal Position        2
    Extract Area            AREDT
    Column Output Properties
      Heading 1             TYP_DESC
      Heading 2
      Heading 3
      Start Position        3
      Data Type             Alphanumeric
      Date/Time Format      NONE
      Length                20
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259433
      Column Source Type    Constant
      Column Source Value
  Column Data
    Column ID               200828
    Name                    Column Number 3
    Ordinal Position        3
    Extract Area            AREDT
    Column Output Properties
      Heading 1             EFF_START_DATE
      Heading 2
      Heading 3
      Start Position        23
      Data Type             Alphanumeric
      Date/Time Format      CYMD
      Length                8
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259434
      Column Source Type    Constant
```

```
      Column Source Value
  Column Data
    Column ID               200829
    Name                    Column Number 4
    Ordinal Position        4
    Extract Area            AREDT
    Column Output Properties
      Heading 1             EFF_END_DATE
      Heading 2
      Heading 3
      Start Position        31
      Data Type             Alphanumeric
      Date/Time Format      CYMD
      Length                8
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259435
      Column Source Type    Constant
      Column Source Value
  Column Data
    Column ID               200830
    Name                    Column Number 5
    Ordinal Position        5
    Extract Area            SORTK
    Column Output Properties
      Heading 1             TYP_CODE
      Heading 2
      Heading 3
      Start Position        39
      Data Type             Alphanumeric
      Date/Time Format      NONE
      Length                2
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Sort Key Properties
      Sort Key ID           35232
      Sort Key Number       1
      Sort Sequence         Ascending
      Data Type             Alphanumeric
      Date/Time Format      NONE
      Length                2
      Decimal Places        0
      Signed                0
      Display Mode          Categorize
      Label                 TYP_CODE
      Footer Label          Same Page
```

```
      Header Option          Same Page
      Footer Option          Same Page
      Title View Source
      Title Field
      Effective Date Type
      Effective Date Value
      Title Length
    Column Source Properties 1
      ID                     259436
      Column Source Type     Source File Field
      Column Source Field    TYP_CODE 61252
  Column Data
    Column ID                200831
    Name                     Column Number 6
    Ordinal Position         6
    Extract Area             AREDT
    Column Output Properties
      Heading 1              TYP_DESC
      Heading 2
      Heading 3
      Start Position         41
      Data Type              Alphanumeric
      Date/Time Format       NONE
      Length                 20
      Data Alignment         Left
      Visible Flag           1
      Spaces before column   0
      Header Alignment       Center
      Decimal Places         0
      Scaling Factor         0
      Signed Flag            0
      Numeric Mask
      Format Phase Calc
      Record Agg Function    None
      Group Agg Function     None
    Column Source Properties 1
      ID                     259437
      Column Source Type     Source File Field
      Column Source Field    TYP_DESC 61253
  Column Data
    Column ID                200832
    Name                     Column Number 7
    Ordinal Position         7
    Extract Area             AREDT
    Column Output Properties
      Heading 1
      Heading 2
      Heading 3
      Start Position         61
      Data Type              Alphanumeric
      Date/Time Format       NONE
      Length                 10
      Data Alignment         Left
      Visible Flag           1
      Spaces before column   0
      Header Alignment       Center
      Decimal Places         0
      Scaling Factor         0
      Signed Flag            0
      Numeric Mask
      Format Phase Calc
      Record Agg Function    None
      Group Agg Function     None
    Column Source Properties 1
      ID                     259438
```

```
      Column Source Type    Formula
      Column Logic Text     ***see View Logic Report***
  Column Data
    Column ID               200833
    Name                    Column Number 8
    Ordinal Position        8
    Extract Area            AREDT
    Column Output Properties
      Heading 1             EFF_START_DATE
      Heading 2
      Heading 3
      Start Position        71
      Data Type             Alphanumeric
      Date/Time Format      CYMD
      Length                8
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259439
      Column Source Type    Source File Field
      Column Source Field   EFF_START_DATE 61254
  Column Data
    Column ID               200834
    Name                    Column Number 9
    Ordinal Position        9
    Extract Area            AREDT
    Column Output Properties
      Heading 1             EFF_END_DATE
      Heading 2
      Heading 3
      Start Position        79
      Data Type             Alphanumeric
      Date/Time Format      CYMD
      Length                8
      Data Alignment        Left
      Visible Flag          1
      Spaces before column  0
      Header Alignment      Center
      Decimal Places        0
      Scaling Factor        0
      Signed Flag           0
      Numeric Mask
      Format Phase Calc
      Record Agg Function   None
      Group Agg Function    None
    Column Source Properties 1
      ID                    259440
      Column Source Type    Source File Field
      Column Source Field   EFF_END_DATE 61255
  Column Data
    Column ID               200835
    Name                    Column Number 10
    Ordinal Position        10
    Extract Area            AREDT
    Column Output Properties
      Heading 1
```

```
        Heading 2
        Heading 3
        Start Position        87
        Data Type             Alphanumeric
        Date/Time Format      DD
        Length                2
        Data Alignment        Left
        Visible Flag          1
        Spaces before column  0
        Header Alignment      Center
        Decimal Places        0
        Scaling Factor        0
        Signed Flag           0
        Numeric Mask
        Format Phase Calc
        Record Agg Function   None
        Group Agg Function    None
      Column Source Properties 1
        ID                    259441
        Column Source Type    Formula
        Column Logic Text     ***see View Logic Report***
    Column Data
      Column ID               200836
      Name                    Column Number 11
      Ordinal Position        11
      Extract Area            ARECT
      Column Output Properties
        Heading 1
        Heading 2
        Heading 3
        Start Position        89
        Data Type             Binary
        Date/Time Format      NONE
        Length                1
        Data Alignment        Right
        Visible Flag          1
        Spaces before column  0
        Header Alignment      Center
        Decimal Places        0
        Scaling Factor        0
        Signed Flag           0
        Numeric Mask          -Z,ZZ9.99
        Format Phase Calc     ***see View Logic Report***
        Record Agg Function   None
        Group Agg Function    None
      Column Source Properties 1
        ID                    259442
        Column Source Type    Constant
        Column Source Value   1

Total Number of View records: 1
```

6.10.2 View properties comparison report

```
View Properties Comparison
--------------------------
Compared :  All
*-------------------------------------------------------------------------
  View ID                     8475
  View Name                   PRODUCT_Lookup_and_Report
  Column Properties
    Column Data
      Column ID               199663
      Name
-      VDP1                   Column Number 2
-      VDP2                   Column Number 3
      Ordinal Position
-      VDP1                   2
-      VDP2                   3
      Column Output Properties
        Start Position
-        VDP1                 15
-        VDP2                 20
    Column Data
      Column ID               199664
      Name
-      VDP1                   Column Number 3
-      VDP2                   Column Number 2
      Ordinal Position
-      VDP1                   3
-      VDP2                   2
      Column Output Properties
        Start Position
-        VDP1                 67
-        VDP2                 15


Total Number of Differences: 6
```

This shows the differences as:

1. Column 199663 is Column 2 in VDP1 and 3 in VDP2.
2. Column 199663 is Ordinal Position 2 in VDP1 and 3 in VDP2.
3. Column 199663 is Start Position 15 in VDP1 and 20 in VDP2.
4. Column 199664 is Column 3 in VDP1 and 2 in VDP2.
5. Column 199664 is Ordinal Position 3 in VDP1 and 2 in VDP2.
6. Column 199664 is Start Position 67 in VDP1 and 15 in VDP2.

It appears that columns 2 and 3 have switched position between the two VDPs.

7 How to investigate differences

7.1 Example: Differences in a catalog summary

Below is a catalog summary report comparing two VDPs:

```
VDP Record Summary Report
-------------------------
VDP Run Date            20150505    20150507
--------------------------------------------------------------------------------
Component Type        VDP1 Count  VDP2 Count
--------------------------------------------------------------------------------
User Exit Routines          0           0
Control Records             1           1
Physical Files              1           1
Logical Files               1           1
Logical Records             1           1
Lookup Paths                0           0
Views                       1           1

--------------------------------------------------------------------------------
Component Type             ID  VDP1               VDP2
--------------------------------------------------------------------------------
View Logic               8590  does not match     does not match

Physical File            6384  does not match     does not match
```

In this case, differences are marked "**does not match**" for two types (view logic and physical file). Differences can also be marked "exists" and "missing" if an component is present or not present in a VDP.

To investigate this, check more reports. Sometimes some reports do not help, so we check more reports until the differences are clear.

See the next section for the first step.

7.1.1 Step 1: Check catalog summary reports for one VDP

When differences are “exists” or “missing”, the catalog summary reports for the two single VDPs show the differences.

In this case, these reports do not show the differences.

The catalog summary report for VDP1 is below:

```
VDP Record Summary Report
-------------------------
VDP Run Date            20150505
--------------------------------------------------------------------------------
Component Type          Count
--------------------------------------------------------------------------------
User Exit Routines          0
Control Records             1
Physical Files              1
Logical Files               1
Logical Records             1
Lookup Paths                0
Views                       1

--------------------------------------------------------------------------------
Component Type             ID  Name
--------------------------------------------------------------------------------
Control Record              58  MYCO_1_START_1
Physical File             6384  PRODUCT_TYPE
Logical File               959  PRODUCT_TYPE
Logical Record             917  PRODUCT_TYPE

View                      8590  Use_All_LogicText
```

The catalog summary report for VDP2 is below:

```
VDP Record Summary Report
-------------------------
VDP Run Date            20150507
--------------------------------------------------------------------------------
Component Type          Count
--------------------------------------------------------------------------------
User Exit Routines          0
Control Records             1
Physical Files              1
Logical Files               1
Logical Records             1
Lookup Paths                0
Views                       1

--------------------------------------------------------------------------------
Component Type             ID  Name
--------------------------------------------------------------------------------
Control Record              58  MYCO_1_START_1
Physical File             6384  PRODUCT_TYPE
Logical File               959  PRODUCT_TYPE
Logical Record             917  PRODUCT_TYPE

View                      8590  Use_All_LogicText
```

7.1.2 Step 2: Check catalog detailed reports

When differences are “exists” or “missing”, these reports show the differences. Once again, in this case the reports do not show the differences.

The catalog detailed report for VDP1 is below:

```
VDP Record Summary Report
-------------------------
VDP Run Date            20150505

--------------------------------------------------------------------------------
Component Type          Count
--------------------------------------------------------------------------------
User Exit Routines          0
Control Records             1
Physical Files              1
Logical Files               1
Logical Records             1
Lookup Paths                0
Views                       1


--------------------------------------------------------------------------------
Component Type              ID  Name
--------------------------------------------------------------------------------

Control Record              58  MYCO_1_START_1

Physical File             6384  PRODUCT_TYPE

Logical File               959  PRODUCT_TYPE
  PF ID           PF Name
  6384            PRODUCT_TYPE

Logical Record             917  PRODUCT_TYPE
  Field ID        Field Name                                    Data Type
  61252           TYP_CODE                                      ALNUM
  61253           TYP_DESC                                      ALNUM
  61254           EFF_START_DATE                                ALNUM
  61255           EFF_END_DATE                                  ALNUM
2618            PrimaryKey1                                  1        61252
2618            Starting Effective Date2                     2        61254
2618            Ending Effective Date3                       3        61255


View                       8590  Use_All_LogicText
      Detail output to PRODUCT_TYPE
   Src Num      LR      LF
         1     917     959
  Number of columns: 11
  Extract Length: 89(11)
  Number of sort keys: 1
```

The catalog detailed report for VDP2 is below:

```
VDP Record Summary Report
-------------------------
VDP Run Date           20150507

--------------------------------------------------------------------------------
Component Type         Count
--------------------------------------------------------------------------------
User Exit Routines         0
Control Records            1
Physical Files             1
Logical Files              1
Logical Records            1
Lookup Paths               0
Views                      1


--------------------------------------------------------------------------------
Component Type             ID  Name
--------------------------------------------------------------------------------

Control Record             58  MYCO_1_START_1

Physical File            6384  PRODUCT_TYPE

Logical File              959  PRODUCT_TYPE
  PF ID           PF Name
  6384            PRODUCT_TYPE

Logical Record            917  PRODUCT_TYPE
  Field ID        Field Name                                    Data Type
  61252           TYP_CODE                                      ALNUM
  61253           TYP_DESC                                      ALNUM
  61254           EFF_START_DATE                                ALNUM
  61255           EFF_END_DATE                                  ALNUM
2618            PrimaryKey1                                  1        61252
2618            Starting Effective Date2                     2        61254
2618            Ending Effective Date3                       3        61255


View                      8590  Use_All_LogicText
      Detail output to PRODUCT_TYPE
   Src Num      LR      LF
         1     917     959
  Number of columns: 11
  Extract Length: 89(11)
  Number of sort keys: 1
```

7.1.3 Step 3: Check other comparison reports

In this case two other comparison reports show the differences clearly.

The view logic comparison report is as follows:

```
View Logic Comparison
---------------------
Compared :  All
*-------------------------------------------------------------------------
  View ID                     8590
  View Name                   Use_All_LogicText
  Column Logic
    Column Number 11
      Format Phase Calc
-      VDP1
        COLUMN = 3.142
        ' Set constant value
-      VDP2
        COLUMN = 1.618
        ' Set constant value


Total Number of Differences: 1
```

This report shows the difference is the Format Phase Calculation logic text in column 11. In VDP1, the column is set to 3.142, compared to 1.618 in VDP2.

The physical file comparison report is as follows:

```
Physical File Comparison
------------------------
Compared :  All
*-------------------------------------------------------------------------
  ID                          6384
  Name                        PRODUCT_TYPE
  Dataset Output Attributes
    Expiry Date
-    VDP1                     20150505
-    VDP2                     20150507


Total Number of Differences: 1
```

This report shows the difference is the expiry date in the Dataset Output Attributes. In VDP1, the column is date is May 5, 2015, compared to May 7 in VDP2.

8 Output: Templates

The VDP Analyzer can generate template files for the z/OS File Manager. The template files represent the logical records and view output records defined in a VDP file.

For an introduction, see ***Section 2.3 Overview: Output Templates.***

The templates are stored in a PDS defined in the JCL.

After the templates are generated, the members of the PDS are:

- **Logical records** named **Lrnnnn** where nnnn is derived from the ID of the logical record.
- **Extract records** named **EXTRnnnn** where nnnn is derived from the work file number. The content is a template of the view's internal working extract file.
- **View Extract Records** named **VEnnnn** where nnnn is derived from the view number. This is for extract only views. The content is a template of the view output columns.
- **View Format Records** named **VFnnnn** where nnnn is derived from the view number. This is for views with a format phase. The content is a template of the view output columns.

8.1 PARM value

To generate templates, ensure **-f** is part of the PARM value for the job step GVBVDPDF:

```
//PSTEP120 EXEC PGM=GVBVDPDF,REGION=1024M,
// PARM='-c DD:CFG -f'
```

8.2 Data in the Configuration File

See ***Section 4.2.2 Output DDNAMEs*** for details of the DDNAMEs for templates.

An example configuration file for templates is:

```
[VDPDIFF]
*       Character (*) in position 1 indicates a comment.
*
*       Input VDP DDNAMES
*       =================
IN_VDP1=DD:VDP1
*IN_VDP2=DD:VDP2
*
*       OUTPUT DDNAMEs
*       ==============
*
*       VIEW PROPERTIES Reports
VDP1_VIEW_REPORT=DD:VWRPT1
*VDP2_VIEW_REPORT=DD:VWRPT2
*VDPC_VIEW_REPORT=DD:VWRPT
*
*       LOGICAL RECORD Reports
VDP1_LR_REPORT=DD:LRRPT1
*VDP2_LR_REPORT=DD:LRRPT2
*VDPC_LR_REPORT=DD:LRRPT
*
*       TEMPLATES LIBRARY
FMTEMPLATES=DD:TMPLTS
*
*
[NODES]
*       DATABASE FIELD TABLE
*       ====================
*
* DATABASE FIELD         REPORT STRING                    USAGE
*************************************************************
CR_ID=                   CR ID=                           Both
CR_NAME=                 CR Name=                         Both
CR_FISCAL=               First Fiscal Month=              Both
CR_BEGIN=                Beginning Period=                Both
CR_END=                  Ending Period=                   Both
CR_MAX_FILE=             Max Extr file Num=               Both
EXIT_ID=                 ExitID=                          Both
EXIT_NAME=               Name=                            Both
EXIT_TYPE=               Type=                            Both
EXIT_LANG=               Language=                        Both
EXIT_PATH=               Path=                            Both
EXIT_EXEC=               Executable=                      Both
EXIT_OPT=                Optimize Flag=                   Both
LF_ID=                   ID=                              Both
LF_NAME=                 Name=                            Both
LK_ID=                   ID=                              Both
LK_NAME=                 Name=                            Both
LK_SRC_LR=               Source Logical Record=           Both
LK_TRG_LR=               Target Logical Record=           Both
LK_TRG_LF=               Target Logical File=             Both
LK_KEY_TYPE=             Key Type=                        Both
LK_LR_FIELD=             LR Field=                        Both
LK_LR=                   LR=                              Both
LK_CONST=                Constant=                        Both
LK_CONST_LEN=            Constant Length=                 Both
LK_SYM=                  Symbol=                          Both
```

LK_VAL=	Default Value=	Both
LK_VAL_LEN=	Value Length=	Both
LK_DTYPE=	Data Type=	Both
LK_KEY_LEN=	Length=	Both
LK_DATE=	Date/Time Format=	Both
LK_SCALE=	Scaling Factor=	Both
LK_DPS=	Decimal Places=	Both
LK_SIGNED=	Signed=	Both
LR_ID=	ID=	Both
LR_NAME=	Name=	Both
LR_TYPE=	Type=	Both
LR_STATUS=	Status=	Both
LR_LKP_EXIT=	Lookup Exit=	Both
LR_LKP_PARMS=	Lookup Exit Parms=	Both
LR_FLD_ID=	ID=	Both
LR_FLD_NAME=	Name=	Both
LR_FLD_TYPE=	Data Type=	Both
LR_FLD_POS=	Fixed Position=	Both
LR_FLD_LEN=	Length=	Both
LR_FLD_DPS=	Decimal Places=	Both
LR_FLD_KEY=	Primary Key Sequence *=	Both
LR_FLD_EFFDATE=	Effective Date=	Both
LR_FLD_ORDINAL=	Ordinal Position=	Both
LR_FLD_OFFSET=	Ordinal Offset=	Both
LR_FLD_SCALE=	Scaling=	Both
LR_FLD_FORMAT=	Date/Time Format=	Both
LR_FLD_SIGNED=	Signed=	Both
LR_FLD_ALIGN=	Align Heading=	Both
LR_FLD_MASK=	Numeric Mask=	Both
LR_FLD_COLNAME=	DBMS ColName=	Both
PF_ID=	ID=	Both
PF_NAME=	Name=	Both
PF_TYPE=	File Type=	Both
PF_ACCESS=	Access Method=	Both
PF_READ_EXIT=	Read Routine=	Both
PF_READ_PARMS=	Read Exit Parameters=	Both
PF_DD=	DD Name=	Both
PF_CONN=	Connection String=	Both
PF_TABLE=	Table Name=	Both
PF_ROW=	Row Format=	Both
PF_NULLS=	Return Null Indicator=	Both
PF_SQL=	SQL=	Both
PF_IN_DD=	Input DD Name=	Both
PF_IN_DSN=	DSN=	Both
PF_RD_DISP=	Read Disp=	Both
PF_RCLEN=	Record Length=	Both
PF_MAX_RCLEN=	Max Record Length=	Both
PF_OUT_DD=	Output DD Name=	Both
PF_OUT_DSN=	DSN=	Both
PF_DEV_TYPE=	Device Type=	Both
PF_UNIT=	Space Unit=	Both
PF_PRM_QTY=	Primary Qty=	Both
PF_SCND_QTY=	Secondary Qty=	Both
PF_DSORG=	DSORG=	Both
PF_RECFM=	RECFM=	Both
PF_LRECL=	LRECL=	Both
PF_BLKSIZE=	BLKSIZE=	Both
PF_WR_DISP=	Write DISP=	Both
PF_OPTCD=	OPTCD=	Both
PF_SYSOUT=	SysOut=	Both
PF_DSCB=	Model DSCB=	Both
PF_EXP_DT=	Expiry Date=	Both
PF_RETN=	Retention Period=	Both
VIEW_ID=	View ID=	Both
VIEW_NAME=	View Name=	Both

VIEW_LOGIC_ID=	View ID=	Both
VIEW_LOGIC_NAME=	View Name=	Both
VIEW_STATUS=	Status=	Both
VIEW_OUT_FRMT=	Output Format=	Both
VIEW_PAGE_LINES=	Lines Per Page=	Both
VIEW_WIDTH=	Reports Width=	Both
VIEW_FOLDER_ID=	View folder ID=	Both
VIEW_CR=	Control Record=	Both
VIEW_OUT_LF=	Output Logical File=	Both
VIEW_OUT_PF=	Output Physical File=	Both
VIEW_EXIT=	User Exit Name=	Both
VIEW_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_AGGREGATION=	Record Aggregation=	Both
VIEW_BUFF_SIZE=	Buffer Size=	Both
VIEW_OUT_LIMIT=	Output Limit=	Both
VIEW_FRMT_EXIT=	User Exit Name=	Both
VIEW_FRMT_EXIT_PARMS=	User Exit Parameters=	Both
VIEW_FRMT_OUT_LIMIT=	Output Limit=	Both
VIEW_FLD_DELIM=	Field Delimiter=	Both
VIEW_STR_DELIM=	String Delimiter=	Both
VIEW_ERROR=	Error Fill Characters=	Both
VIEW_TRUNC=	Truncation Fill Characters=	Both
VIEW_FORMAT_REC_FILTER=	Record Filter=	Both
VIEW_HEADER_LEFT=	Header Left=	Both
VIEW_HEADER_CENTRE=	Header Centre=	Both
VIEW_HEADER_RIGHT=	Header Right=	Both
VIEW_FOOTER_LEFT=	Footer Left=	Both
VIEW_FOOTER_CENTRE=	Footer Centre=	Both
VIEW_FOOTER_RIGHT=	Footer Right=	Both
VIEW_SRC_ID=	Source ID=	Both
VIEW_SRC_LR=	Logical Record=	Both
VIEW_SRC_LF=	Logical File=	Both
VIEW_SRC_REC_FILTER=	Record Filter=	Both
VIEW_COL_ID=	Column ID=	Both
VIEW_COL_NAME=	Name=	Both
VIEW_HEADING1=	Heading 1=	Both
VIEW_HEADING2=	Heading 2=	Both
VIEW_HEADING3=	Heading 3=	Both
VIEW_COL_STRT_POS=	Start Position=	Both
VIEW_COL_ORD_POS=	Ordinal Position=	Both
VIEW_COL_DATA_TYPE=	Data Type=	Both
VIEW_COL_FRMT=	Date/Time Format=	Both
VIEW_COL_LEN=	Length=	Both
VIEW_COL_ALIGN=	Data Alignment=	Both
VIEW_COL_VISIBLE=	Visible Flag=	Both
VIEW_COL_SPACES=	Spaces before column=	Both
VIEW_COL_HDR_ALIGN=	Header Alignment=	Both
VIEW_COL_DPS=	Decimal Places=	Both
VIEW_COL_SCALE=	Scaling Factor=	Both
VIEW_COL_SIGN=	Signed Flag=	Both
VIEW_COL_MASK=	Numeric Mask=	Both
VIEW_COL_CALC=	Format Phase Calc=	Both
VIEW_REC_AGG_FUNC=	Record Agg Function=	Both
VIEW_GRP_AGG_FUNC=	Group Agg Function=	Both
VIEW_SORT_ID=	Sort Key ID=	Both
VIEW_SORT_NUM=	Sort Key Number=	Both
VIEW_SORT_SEQ=	Sort Sequence=	Both
VIEW_SORT_DATA_TYPE=	Data Type=	Both
VIEW_SORT_FORMAT=	Date/Time Format=	Both
VIEW_SORT_LEN=	Length=	Both
VIEW_SORT_DPS=	Decimal Places=	Both
VIEW_SORT_SIGNED=	Signed=	Both
VIEW_SORT_DISP_MODE=	Display Mode=	Both
VIEW_SORT_LABEL=	Label=	Both
VIEW_SORT_FOOTER=	Footer Label=	Both

```
VIEW_SORT_HEADER_OPT=     Header Option=                Both
VIEW_SORT_FOOTER_OPT=     Footer Option=                Both
VIEW_SORT_TITLE_SRC=      Title View Source=            Both
VIEW_SORT_TITLE_FIELD=    Title Field=                  Both
VIEW_SORT_TITLE_EFFTYPE= Effective Date Type=           Both
VIEW_SORT_TITLE_EFF_DT=   Effective Date Value=         Both
VIEW_SORT_TITLE_LEN=      Title Length=                 Both
VIEW_COL_SRC_ID=          ID=                           Both
VIEW_COL_SRC_TYPE=        Column Source Type=           Both
VIEW_COL_LOGIC_TEXT=      Column Logic Text=            Both
VIEW_COL_SRC_VAL=         Column Source Value=          Both
VIEW_COL_LKP=             Column Lookup Path=           Both
VIEW_COL_LKP_LR=          Column Lookup LR=             Both
VIEW_COL_LKP_FIELD=       Column Lookup Field=          Both
VIEW_COL_SRC_FIELD=       Column Source Field=          Both
VIEW_COL_LOGIC=           Column Value=                 Both
*
*
```

8.3 Example templates files

The members below are stored in the PDS defined in the JCL.

8.3.1 Example template: member EXTR0001

This member is the template for extract work file 1.

```
<template type="DYNAMIC">
 <layout name="LogicText" sel="1">
   <symbol name="SK_Len" start="1" length="2" type="BI"/>
   <symbol name="SKT_Len" start="3" length="2" type="BI"/>
   <symbol name="DT_Len" start="5" length="2" type="BI"/>
   <symbol name="CT_Count" start="7" length="2" type="BI"/>
   <symbol name="SumType" start="9" length="4" type="BI"/>

  <symbol name="TYP_CODE" start="13" length="2" type="AN"/>

  <symbol name="TYP_CODE" start="15" length="2" type="AN"/>
  <symbol name="TYP_DESC" start="17" length="20" type="AN"/>
  <symbol name="EFF_START_DATE" start="37" length="8" type="AN"/>
  <symbol name="EFF_END_DATE" start="45" length="8" type="AN"/>
  <symbol name="TYP_DESC" start="53" length="20" type="AN"/>
  <symbol name="" start="73" length="1" type="AN"/>
  <symbol name="EFF_START_DATE" start="74" length="8" type="AN"/>
  <symbol name="EFF_END_DATE" start="82" length="8" type="AN"/>
  <symbol name="" start="90" length="2" type="AN"/>

  <symbol name="C" start="92" length="2" type="BI"/>
  <symbol name="" start="94" length="12" type="PD"/>

   <criteria type="ID">
     <exp>#SumType = 16925</exp>
   </criteria>

 </layout>
 <layout name="LogicText_HDR" sel="1">
   <symbol name="SK_Len" start="1" length="2" type="BI"/>
   <symbol name="SKT_Len" start="3" length="2" type="BI"/>
   <symbol name="DT_Len" start="5" length="2" type="BI"/>
   <symbol name="CT_Count" start="7" length="2" type="BI"/>
   <symbol name="SumType" start="9" length="4" type="BI"/>
   <symbol name="REC CNT" start="15" length="6" type="PD"/>
   <symbol name="USER" start="21" length="8" type="AN"/>
   <symbol name="Event DD" start="29" length="8" type="AN"/>
   <symbol name="Done" start="37" length="1" type="AN"/>
   <symbol name="OC7" start="38" length="1" type="AN"/>
   <symbol name="Limit Exceeded" start="39" length="1" type="AN"/>
   <symbol name="Limit" start="40" length="6" type="PD"/>
   <criteria type="ID">
     <exp>#SumType = 16924</exp>
   </criteria>
```

```
 </layout>
 <layout name="CTRL" sel="1">   <symbol name="SK_Len" start="1" length="2"
type="BI"/>
   <symbol name="SKT_Len" start="3" length="2" type="BI"/>
   <symbol name="DT_Len" start="5" length="2" type="BI"/>
   <symbol name="CT_Count" start="7" length="2" type="BI"/>
   <symbol name="SumType" start="9" length="4" type="BI"/>
   <symbol name="REC CNT" start="13" length="6" type="PD"/>
   <symbol name="FILE NUM" start="19" length="2" type="BI"/>
   <symbol name="Date" start="21" length="8" type="AN"/>
   <symbol name="Time" start="29" length="6" type="AN"/>
   <symbol name="Fin Period" start="35" length="6" type="AN"/>
   <criteria type="ID">
     <exp>#SumType = 0</exp>
   </criteria>
 </layout>
</template>
```

8.3.2 Example template: member LR917

This member is the template for logical record with ID 917.

```
<template type="DYNAMIC">
 <layout name="PRODUCT_TYPE" sel="1">
  <symbol name="TYP_CODE" start="1" length="2" type="AN"/>
  <symbol name="TYP_DESC" start="3" length="20" type="AN"/>
  <symbol name="EFF_START_DATE" start="23" length="8" type="AN"/>
  <symbol name="EFF_END_DATE" start="31" length="8" type="AN"/>
 </layout>
</template>
```

8.3.3 Example template: member VF8462

This member is the template for view output for the format phase.

```
<template type="DYNAMIC">
 <layout name="LogicText" sel="1">
  <symbol name="TYP_CODE" start="1" length="2" type="AN"/>
  <symbol name="TYP_DESC" start="3" length="20" type="AN"/>
  <symbol name="EFF_START_DATE" start="23" length="8" type="AN"/>
  <symbol name="EFF_END_DATE" start="31" length="8" type="AN"/>
  <symbol name="TYP_CODE" start="39" length="2" type="AN"/>
  <symbol name="TYP_DESC" start="41" length="20" type="AN"/>
  <symbol name="" start="61" length="1" type="AN"/>
  <symbol name="EFF_START_DATE" start="62" length="8" type="AN"/>
```

```
  <symbol name="EFF_END_DATE" start="70" length="8" type="AN"/>
  <symbol name="" start="78" length="2" type="AN"/>
  <symbol name="" start="80" length="1" type="BI"/>

 </layout>
</template>
```

9 JCL

9.1 JCL for VDP Reports – one VDP

```
//VDPRPT1 JOB (ACCT),'VDP REPORTS ONE VDP',                              00010018
//            NOTIFY=&SYSUID.,                                           00020000
//            CLASS=A,                                                   00030000
//            MSGLEVEL=(1,1),                                            00040000
//            MSGCLASS=H,                                                00050000
//            REGION=0M                                                  00060000
//*                                                                      00070000
//JOBLIB   DD DISP=SHR,DSN=MYCO.??.BTCHLOAD                              00080016
//         DD DISP=SHR,DSN=MYCO.??.GVBLOAD                               00090016
//         DD DISP=SHR,DSN=MYCO.??.SIXMLOD1                              00100016
//*                                                                      00110000
//*********************************************************************00120000
//* PSTEP100 - DELETE THE FILE(S) CREATED IN NEXT STEP                  00130000
//*                                                                      00140000
//*********************************************************************00150000
//*                                                                      00160000
//PSTEP100 EXEC PGM=IDCAMS                                               00170000
//*                                                                      00180000
//SYSPRINT DD SYSOUT=*                                                   00190000
//*                                                                      00200000
//SYSIN    DD *                                                          00210000
 DELETE  USERNAME.??.CAT1                                               00220016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00230003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00240003
 DELETE  USERNAME.??.CATDT1                                             00250016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00260000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00270000
 DELETE  USERNAME.??.VWRPT1                                             00280016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00290009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00300009
 DELETE  USERNAME.??.LOGRPT1                                            00310016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00320009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00330009
 DELETE  USERNAME.??.EXRPT1                                             00340016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00350003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00360003
 DELETE  USERNAME.??.CRRPT1                                             00370016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00380003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00390003
 DELETE  USERNAME.??.PFRPT1                                             00400016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00410003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00420003
 DELETE  USERNAME.??.LFRPT1                                             00430016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00440003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00450003
 DELETE  USERNAME.??.LRRPT1                                             00460016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00470003
```

```
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00480003
 DELETE  USERNAME.??.LKRPT1                                             00490016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00500003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00510003
 DELETE  USERNAME.??.RUNRPT PURGE                                       00520016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00530000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            00540000
//*************************************************************        00550000
//* PSTEP120 - GENERATE FM TEMPLATES                                    00560000
//*                                                                     00570000
//*************************************************************        00580000
//*                                                                     00590000
//PSTEP120 EXEC PGM=VDPDIFF,REGION=1024M,                               00600008
// PARM='-c DD:CFG'                                                     00610004
//*                                                                     00620000
//*        INPUT FILES                                                  00630000
//*                                                                     00640003
//CFG      DD DSN=USERNAME.??.CFG.VDPRPTS1,                             00650017
//            DISP=SHR                                                00660003
//*                                                                     00670003
//VDP1     DD DSN=USERNAME.V???.??.VDP,                                 00680016
//            DISP=SHR                                                00690000
//*                                                                     00700000
//*        OUTPUT FILES                                                 00710003
//*                                                                     00720003
//CAT1     DD DSN=USERNAME.??.CAT1,                                     00730016
//            DISP=(NEW,CATLG,DELETE),                                00740000
//            UNIT=SYSDA,                                             00750000
//            SPACE=(TRK,(2,2),RLSE),                                 00760003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                       00770000
//*                                                                     00780003
//CATDT1   DD DSN=USERNAME.??.CATDT1,                                   00790016
//            DISP=(NEW,CATLG,DELETE),                                00800003
//            UNIT=SYSDA,                                             00810003
//            SPACE=(TRK,(2,2),RLSE),                                 00820003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                       00830003
//*                                                                     00840000
//VWRPT1   DD DSN=USERNAME.??.VWRPT1,                                   00850016
//            DISP=(NEW,CATLG,DELETE),                                00860000
//            UNIT=SYSDA,                                             00870000
//            SPACE=(TRK,(2,2),RLSE),                                 00880003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                        00890000
//*                                                                     00900003
//LOGRPT1  DD DSN=USERNAME.??.LOGRPT1,                                  00910016
//            DISP=(NEW,CATLG,DELETE),                                00920003
//            UNIT=SYSDA,                                             00930003
//            SPACE=(TRK,(2,2),RLSE),                                 00940003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                        00950003
//*                                                                     00960003
//EXRPT1   DD DSN=USERNAME.??.EXRPT1,                                   00970016
//            DISP=(NEW,CATLG,DELETE),                                00980003
//            UNIT=SYSDA,                                             00990003
//            SPACE=(TRK,(2,2),RLSE),                                 01000003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                        01010003
//*                                                                     01020003
```

```
//CRRPT1   DD DSN=USERNAME.??.CRRPT1,                                  01030016
//            DISP=(NEW,CATLG,DELETE),                                 01040003
//            UNIT=SYSDA,                                              01050003
//            SPACE=(TRK,(2,2),RLSE),                                  01060003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         01070003
//*                                                                    01080003
//PFRPT1   DD DSN=USERNAME.??.PFRPT1,                                  01090016
//            DISP=(NEW,CATLG,DELETE),                                 01100003
//            UNIT=SYSDA,                                              01110003
//            SPACE=(TRK,(2,2),RLSE),                                  01120003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         01130003
//*                                                                    01140003
//LFRPT1   DD DSN=USERNAME.??.LFRPT1,                                  01150016
//            DISP=(NEW,CATLG,DELETE),                                 01160003
//            UNIT=SYSDA,                                              01170003
//            SPACE=(TRK,(2,2),RLSE),                                  01180003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         01190003
//*                                                                    01200003
//LRRPT1   DD DSN=USERNAME.??.LRRPT1,                                  01210016
//            DISP=(NEW,CATLG,DELETE),                                 01220003
//            UNIT=SYSDA,                                              01230003
//            SPACE=(TRK,(2,2),RLSE),                                  01240003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         01250003
//*                                                                    01260003
//LKRPT1   DD DSN=USERNAME.??.LKRPT1,                                  01270016
//            DISP=(NEW,CATLG,DELETE),                                 01280003
//            UNIT=SYSDA,                                              01290003
//            SPACE=(TRK,(2,2),RLSE),                                  01300003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         01310003
//*                                                                    01320000
//SYSPRINT DD DSN=USERNAME.??.RUNRPT,                                  01330016
//            DISP=(NEW,CATLG,DELETE),                                 01340000
//            UNIT=SYSDA,                                              01350000
//            SPACE=(TRK,(2,2),RLSE),                                  01360003
//            DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)                   01370000
//*                                                                    01380001
//SYSOUT   DD SYSOUT=*,DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)          01390000
//ODBCTRAC DD SYSOUT=*                                                 01400000
//CEEDUMP  DD SYSOUT=*                                                 01410000
//SYSMDUMP DD SYSOUT=*                                                 01420000
//*                                                                    01430000
```

9.2 JCL for VDP Reports – two VDPs

```
//VDPRPT2 JOB (ACCT),'VDP REPORTS FOR TWO VDPS',                        00010016
//            NOTIFY=&SYSUID.,                                          00020000
//            CLASS=A,                                                  00030000
//            MSGLEVEL=(1,1),                                           00040000
//            MSGCLASS=H,                                               00050000
//            REGION=0M                                                 00060000
//*                                                                     00070000
//JOBLIB   DD DISP=SHR,DSN=MYCO.??.BTCHLOAD                           00080016
//         DD DISP=SHR,DSN=MYCO.??.GVBLOAD                            00090016
//         DD DISP=SHR,DSN=MYCO.??.SIXMLOD1                           00100016
//*                                                                     00110000
//*********************************************************************00120000
//* PSTEP100 - DELETE THE FILE(S) CREATED IN NEXT STEP                  00130000
//*                                                                     00140000
//*********************************************************************00150000
//*                                                                     00160000
//PSTEP100 EXEC PGM=IDCAMS                                            00170000
//*                                                                     00180000
//SYSPRINT DD SYSOUT=*                                                00190000
//*                                                                     00200000
//SYSIN    DD *                                                       00210000
 DELETE  USERNAME.??.CAT1                                             00220016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00230003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00240003
 DELETE  USERNAME.??.CAT2                                             00250016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00260009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00270009
 DELETE  USERNAME.??.CATRPT                                           00280016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00290009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00300009
 DELETE  USERNAME.??.CATDT1                                           00310016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00320000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00330000
 DELETE  USERNAME.??.CATDT2                                           00340016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00350009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00360009
 DELETE  USERNAME.??.VWRPT1                                           00370016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00380009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00390009
 DELETE  USERNAME.??.VWRPT2                                           00400016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00410009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00420009
 DELETE  USERNAME.??.VWRPT                                            00430016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00440000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00450000
 DELETE  USERNAME.??.LOGRPT1                                          00460016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00470009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00480009
 DELETE  USERNAME.??.LOGRPT2                                          00490016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -     00500003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */          00510003
```

```
DELETE  USERNAME.??.LOGRPT                                              00520016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00530009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00540009
DELETE  USERNAME.??.EXRPT1                                              00550016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00560003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00570003
DELETE  USERNAME.??.EXRPT2                                              00580016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00590009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00600009
DELETE  USERNAME.??.EXRPT                                               00610016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00620009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00630009
DELETE  USERNAME.??.CRRPT1                                              00640016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00650003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00660003
DELETE  USERNAME.??.CRRPT2                                              00670016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00680009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00690009
DELETE  USERNAME.??.CRRPT                                               00700016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00710009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00720009
DELETE  USERNAME.??.PFRPT1                                              00730016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00740003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00750003
DELETE  USERNAME.??.PFRPT2                                              00760016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00770009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00780009
DELETE  USERNAME.??.PFRPT                                               00790016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00800009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00810009
DELETE  USERNAME.??.LFRPT1                                              00820016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00830003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00840003
DELETE  USERNAME.??.LFRPT2                                              00850016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00860009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00870009
DELETE  USERNAME.??.LFRPT                                               00880016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00890009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00900009
DELETE  USERNAME.??.LRRPT1                                              00910016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00920003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00930003
DELETE  USERNAME.??.LRRPT2                                              00940016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00950009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00960009
DELETE  USERNAME.??.LRRPT                                               00970016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       00980009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            00990009
DELETE  USERNAME.??.LKRPT1                                              01000016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       01010003
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            01020003
DELETE  USERNAME.??.LKRPT2                                              01030016
  IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       01040009
     SET MAXCC = 0           /* PROCEED AS NORMAL ANYWAY */            01050009
DELETE  USERNAME.??.LKRPT                                               01060016
```

```
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       01070009
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            01080009
 DELETE  USERNAME.??.RUNRPT PURGE                                       01090016
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -       01100000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */            01110000
//*****************************************************************    01120000
//* PSTEP120 - GENERATE FM TEMPLATES                                    01130000
//*                                                                     01140000
//*****************************************************************    01150000
//*                                                                     01160000
//PSTEP120 EXEC PGM=VDPDIFF,REGION=1024M,                               01170008
// PARM='-c DD:CFG'                                                     01180004
//*                                                                     01190000
//*        INPUT FILES                                                  01200000
//*                                                                     01210003
//CFG      DD DSN=USERNAME.??.CFG.VDPRPTS2,                             01220016
//            DISP=SHR                                                 01230003
//*                                                                     01240003
//VDP1     DD DSN=USERNAME.V???.??.VDP.A,                               01250016
//            DISP=SHR                                                 01260000
//*                                                                     01270009
//VDP2     DD DSN=USERNAME.V???.??.VDP.B,                               01280016
//            DISP=SHR                                                 01290009
//*                                                                     01300000
//*        OUTPUT FILES                                                 01310003
//*                                                                     01320003
//CAT1     DD DSN=USERNAME.??.CAT1,                                     01330016
//            DISP=(NEW,CATLG,DELETE),                                 01340000
//            UNIT=SYSDA,                                              01350000
//            SPACE=(TRK,(2,2),RLSE),                                  01360003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                        01370000
//*                                                                     01380003
//CAT2     DD DSN=USERNAME.??.CAT2,                                     01390016
//            DISP=(NEW,CATLG,DELETE),                                 01400009
//            UNIT=SYSDA,                                              01410009
//            SPACE=(TRK,(2,2),RLSE),                                  01420009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                        01430009
//*                                                                     01440009
//CATRPT   DD DSN=USERNAME.??.CATRPT,                                   01450016
//            DISP=(NEW,CATLG,DELETE),                                 01460009
//            UNIT=SYSDA,                                              01470009
//            SPACE=(TRK,(2,2),RLSE),                                  01480009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                        01490009
//*                                                                     01500009
//CATDT1   DD DSN=USERNAME.??.CATDT1,                                   01510016
//            DISP=(NEW,CATLG,DELETE),                                 01520003
//            UNIT=SYSDA,                                              01530003
//            SPACE=(TRK,(2,2),RLSE),                                  01540003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                        01550003
//*                                                                     01560000
//CATDT2   DD DSN=USERNAME.??.CATDT2,                                   01570016
//            DISP=(NEW,CATLG,DELETE),                                 01580009
//            UNIT=SYSDA,                                              01590009
//            SPACE=(TRK,(2,2),RLSE),                                  01600009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=128)                        01610009
```

```
//*                                                                     01620009
//VWRPT1   DD DSN=USERNAME.??.VWRPT1,                                   01630016
//            DISP=(NEW,CATLG,DELETE),                                  01640000
//            UNIT=SYSDA,                                               01650000
//            SPACE=(TRK,(2,2),RLSE),                                   01660003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01670000
//*                                                                     01680003
//VWRPT2   DD DSN=USERNAME.??.VWRPT2,                                   01690016
//            DISP=(NEW,CATLG,DELETE),                                  01700009
//            UNIT=SYSDA,                                               01710009
//            SPACE=(TRK,(2,2),RLSE),                                   01720009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01730009
//*                                                                     01740009
//VWRPT    DD DSN=USERNAME.??.VWRPT,                                    01750016
//            DISP=(NEW,CATLG,DELETE),                                  01760009
//            UNIT=SYSDA,                                               01770009
//            SPACE=(TRK,(2,2),RLSE),                                   01780009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01790009
//*                                                                     01800009
//LOGRPT1  DD DSN=USERNAME.??.LOGRPT1,                                  01810016
//            DISP=(NEW,CATLG,DELETE),                                  01820003
//            UNIT=SYSDA,                                               01830003
//            SPACE=(TRK,(2,2),RLSE),                                   01840003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01850003
//*                                                                     01860003
//LOGRPT2  DD DSN=USERNAME.??.LOGRPT2,                                  01870016
//            DISP=(NEW,CATLG,DELETE),                                  01880009
//            UNIT=SYSDA,                                               01890009
//            SPACE=(TRK,(2,2),RLSE),                                   01900009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01910009
//*                                                                     01920009
//LOGRPT   DD DSN=USERNAME.??.LOGRPT,                                   01930016
//            DISP=(NEW,CATLG,DELETE),                                  01940009
//            UNIT=SYSDA,                                               01950009
//            SPACE=(TRK,(2,2),RLSE),                                   01960009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          01970009
//*                                                                     01980009
//EXRPT1   DD DSN=USERNAME.??.EXRPT1,                                   01990016
//            DISP=(NEW,CATLG,DELETE),                                  02000003
//            UNIT=SYSDA,                                               02010003
//            SPACE=(TRK,(2,2),RLSE),                                   02020003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          02030003
//*                                                                     02040003
//EXRPT2   DD DSN=USERNAME.??.EXRPT2,                                   02050016
//            DISP=(NEW,CATLG,DELETE),                                  02060009
//            UNIT=SYSDA,                                               02070009
//            SPACE=(TRK,(2,2),RLSE),                                   02080009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          02090009
//*                                                                     02100009
//EXRPT    DD DSN=USERNAME.??.EXRPT,                                    02110016
//            DISP=(NEW,CATLG,DELETE),                                  02120009
//            UNIT=SYSDA,                                               02130009
//            SPACE=(TRK,(2,2),RLSE),                                   02140009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                          02150009
//*                                                                     02160009
```

```
//CRRPT1   DD DSN=USERNAME.??.CRRPT1,                                  02170016
//            DISP=(NEW,CATLG,DELETE),                                 02180003
//            UNIT=SYSDA,                                              02190003
//            SPACE=(TRK,(2,2),RLSE),                                  02200003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02210003
//*                                                                    02220003
//CRRPT2   DD DSN=USERNAME.??.CRRPT2,                                  02230016
//            DISP=(NEW,CATLG,DELETE),                                 02240009
//            UNIT=SYSDA,                                              02250009
//            SPACE=(TRK,(2,2),RLSE),                                  02260009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02270009
//*                                                                    02280009
//CRRPT    DD DSN=USERNAME.??.CRRPT,                                   02290016
//            DISP=(NEW,CATLG,DELETE),                                 02300009
//            UNIT=SYSDA,                                              02310009
//            SPACE=(TRK,(2,2),RLSE),                                  02320009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02330009
//*                                                                    02340009
//PFRPT1   DD DSN=USERNAME.??.PFRPT1,                                  02350016
//            DISP=(NEW,CATLG,DELETE),                                 02360003
//            UNIT=SYSDA,                                              02370003
//            SPACE=(TRK,(2,2),RLSE),                                  02380003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02390003
//*                                                                    02400003
//PFRPT2   DD DSN=USERNAME.??.PFRPT2,                                  02410016
//            DISP=(NEW,CATLG,DELETE),                                 02420009
//            UNIT=SYSDA,                                              02430009
//            SPACE=(TRK,(2,2),RLSE),                                  02440009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02450009
//*                                                                    02460009
//PFRPT    DD DSN=USERNAME.??.PFRPT,                                   02470016
//            DISP=(NEW,CATLG,DELETE),                                 02480009
//            UNIT=SYSDA,                                              02490009
//            SPACE=(TRK,(2,2),RLSE),                                  02500009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02510009
//*                                                                    02520009
//LFRPT1   DD DSN=USERNAME.??.LFRPT1,                                  02530016
//            DISP=(NEW,CATLG,DELETE),                                 02540003
//            UNIT=SYSDA,                                              02550003
//            SPACE=(TRK,(2,2),RLSE),                                  02560003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02570003
//*                                                                    02580003
//LFRPT2   DD DSN=USERNAME.??.LFRPT2,                                  02590016
//            DISP=(NEW,CATLG,DELETE),                                 02600009
//            UNIT=SYSDA,                                              02610009
//            SPACE=(TRK,(2,2),RLSE),                                  02620009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02630009
//*                                                                    02640009
//LFRPT    DD DSN=USERNAME.??.LFRPT,                                   02650016
//            DISP=(NEW,CATLG,DELETE),                                 02660009
//            UNIT=SYSDA,                                              02670009
//            SPACE=(TRK,(2,2),RLSE),                                  02680009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                         02690009
//*                                                                    02700009
//LRRPT1   DD DSN=USERNAME.??.LRRPT1,                                  02710016
```

```
//            DISP=(NEW,CATLG,DELETE),                                    02720003
//            UNIT=SYSDA,                                                 02730003
//            SPACE=(TRK,(2,2),RLSE),                                     02740003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            02750003
//*                                                                       02760003
//LRRPT2   DD DSN=USERNAME.??.LRRPT2,                                     02770016
//            DISP=(NEW,CATLG,DELETE),                                    02780009
//            UNIT=SYSDA,                                                 02790009
//            SPACE=(TRK,(2,2),RLSE),                                     02800009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            02810009
//*                                                                       02820009
//LRRPT    DD DSN=USERNAME.??.LRRPT,                                      02830016
//            DISP=(NEW,CATLG,DELETE),                                    02840009
//            UNIT=SYSDA,                                                 02850009
//            SPACE=(TRK,(2,2),RLSE),                                     02860009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            02870009
//*                                                                       02880009
//LKRPT1   DD DSN=USERNAME.??.LKRPT1,                                     02890016
//            DISP=(NEW,CATLG,DELETE),                                    02900003
//            UNIT=SYSDA,                                                 02910003
//            SPACE=(TRK,(2,2),RLSE),                                     02920003
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            02930003
//*                                                                       02940000
//LKRPT2   DD DSN=USERNAME.??.LKRPT2,                                     02950016
//            DISP=(NEW,CATLG,DELETE),                                    02960009
//            UNIT=SYSDA,                                                 02970009
//            SPACE=(TRK,(2,2),RLSE),                                     02980009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            02990009
//*                                                                       03000009
//LKRPT    DD DSN=USERNAME.??.LKRPT,                                      03010016
//            DISP=(NEW,CATLG,DELETE),                                    03020009
//            UNIT=SYSDA,                                                 03030009
//            SPACE=(TRK,(2,2),RLSE),                                     03040009
//            DCB=(DSORG=PS,RECFM=FB,LRECL=80)                            03050009
//*                                                                       03060009
//SYSPRINT DD DSN=USERNAME.??.RUNRPT,                                     03070016
//            DISP=(NEW,CATLG,DELETE),                                    03080000
//            UNIT=SYSDA,                                                 03090000
//            SPACE=(TRK,(2,2),RLSE),                                     03100003
//            DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)                      03110000
//*                                                                       03120001
//SYSOUT   DD SYSOUT=*,DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)             03130000
//ODBCTRAC DD SYSOUT=*                                                    03140000
//CEEDUMP  DD SYSOUT=*                                                    03150000
//SYSMDUMP DD SYSOUT=*                                                    03160000
//*                                                                       03170000
```

9.3 JCL for templates

```
//VDPTPL JOB (ACCT),'TEMPLATES',                                        00010029
//            NOTIFY=&SYSUID.,                                          00020000
//            CLASS=A,                                                  00030000
//            MSGLEVEL=(1,1),                                           00040000
//            MSGCLASS=H,                                               00050000
//            REGION=0M                                                 00060000
//*                                                                     00070000
//JOBLIB   DD DISP=SHR,DSN=MYCO.??.BTCHLOAD                             00080029
//         DD DISP=SHR,DSN=MYCO.??.GVBLOAD                              00090029
//         DD DISP=SHR,DSN=MYCO.??.SIXMLOD1                             00100029
//*                                                                     00110000
//*********************************************************************00120000
//* PSTEP100 - DELETE THE FILE(S) CREATED IN NEXT STEP                  00130000
//*                                                                     00140000
//*********************************************************************00150000
//*                                                                     00160000
//PSTEP100 EXEC PGM=IDCAMS                                              00170000
//*                                                                     00180000
//SYSPRINT DD SYSOUT=*                                                  00190000
//*                                                                     00200000
//SYSIN    DD *                                                         00210000
 DELETE  USERNAME.??.FM.TMPLTS PURGE                                    00220029
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -      00230003
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */           00240003
 DELETE  USERNAME.??.RUNRPT PURGE                                       00250029
   IF LASTCC > 0  THEN        /* IF OPERATION FAILED,     */    -      00260000
       SET MAXCC = 0          /* PROCEED AS NORMAL ANYWAY */           00270000
//*********************************************************************00280000
//* PSTEP120 - GENERATE FM TEMPLATES                                    00290000
//*                                                                     00300000
//*********************************************************************00310000
//*                                                                     00320000
//PSTEP120 EXEC PGM=VDPDIFF,REGION=1024M,                               00330007
// PARM='-c DD:CFG -f'                                                  00340011
//*                                                                     00350000
//*        INPUT FILES                                                  00360000
//*                                                                     00370003
//CFG      DD DSN=USERNAME.??.CFG,                                      00380029
//            DISP=SHR                                                  00390003
//*                                                                     00400003
//VDP1     DD DSN=USERNAME.V???.??.VDP,                                 00410029
//            DISP=SHR                                                  00420000
//*                                                                     00430000
//*        OUTPUT FILES                                                 00440003
//*                                                                     00450003
//TMPLTS   DD DSN=USERNAME.??.FM.TMPLTS,                                00460029
//            DISP=(NEW,CATLG,DELETE),                                  00470010
//            UNIT=SYSDA,DSNTYPE=LIBRARY,                               00480010
//            SPACE=(TRK,(100,100),RLSE),                               00490010
//            DSORG=PO,RECFM=FB,LRECL=128                               00500010
```

```
//*                                                                   00510017
//VWRPT1   DD DUMMY                                                  00520017
//*                                                                   00530023
//LRRPT1   DD DUMMY                                                  00540023
//*                                                                   00550000
//SYSPRINT DD DSN=USERNAME.??.RUNRPT,                                 00560029
//            DISP=(NEW,CATLG,DELETE),                                00570000
//            UNIT=SYSDA,                                             00580000
//            SPACE=(TRK,(2,2),RLSE),                                 00590003
//            DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)                  00600000
//*                                                                   00610001
//SYSOUT   DD SYSOUT=*,DCB=(RECFM=VB,LRECL=255,BLKSIZE=32760)         00620000
//ODBCTRAC DD SYSOUT=*                                                00630000
//CEEDUMP  DD SYSOUT=*                                                00640000
//SYSMDUMP DD SYSOUT=*                                                00650000
//*                                                                   00660000
```

10 Troubleshooting

10.1 GVBVDPDF step returns CC 0001

This can either be normal or can indicate an error.

10.1.1 Symptoms

The critical issue is whether the Run Report contain these lines:

```
ERROR: An error has occurred while reading record #1 of the VDP file.
       The length of this record is zero.
ERROR: No input files specified
```

If these ERROR lines are present, see ***Section 10.1.3 Solution (Error)***.

Otherwise, see ***Section 10.1.2 Solution (Normal).***

10.1.2 Solution (Normal)

This is normal - CC 0001 indicates that there are differences listed in at least one VDP comparison report.

For an example of differences, see ***Section 7.1 Example: Differences in a catalog summary.***

10.1.3 Solution (Error)

The ERROR messages shown two sections above appear when an input VDP file was originally created by MR75 or MR77. It is not possible to run the VDP Analyzer with these files as input.

The VDP Analyzer only accepts VDP files originally created by MR86, MR84 or MR90.

Select a VDP file from earlier in your batch SAFR stream to fix this problem.

END OF DOCUMENT