



EPV for WMQ Preparing Input for a Demo



Supporting
EPV for WMQ V2
EPV for WMQ Plus V2

September 2013



All the trademarks mentioned belong to their respective companies.

EPV Technologies contact details:

EPV Technologies

Viale Angelico, 54

00195 Roma

Tel. 06 86210880

Fax. 06 86387461

E-mail: epvtech@epvtech.com

WEB: <http://www.epvtech.com>



Contents

1	Introduction.....	- 5 -
2	Mandatory input data.....	- 6 -
2.1	SMF 30 subtype 2, 3 records.....	- 6 -
2.2	RMF and WMQ records synchronization.....	- 6 -
2.3	SMF 70 records.....	- 6 -
2.4	SMF 115 records.....	- 7 -
2.5	SMF 116 records.....	- 7 -
3	Other suggested input data.....	- 8 -
4	Optional input data.....	- 9 -
5	Preparing data for a demo.....	- 10 -
5.1	Collect the data.....	- 10 -
5.2	Transfer data to PC.....	- 12 -
5.3	Compress the data.....	- 15 -
5.4	Send the data.....	- 15 -
6	Customer support.....	- 16 -
	Related documentation.....	- 17 -



About this manual

This manual is intended to help anyone who wants to provide the data needed to prepare an EPV for WMQ demo.

Changes

Technical changes or additions to the text are indicated by a vertical line to the left of the change.

Terminology

A “view” is an EPV report presented in an HTML page.



1 Introduction

The best way to evaluate the benefits provided by EPV for WMQ for customers is to have a demo based on their data in their own environment.

Providing the data needed to prepare a demo is a quick and easy task to perform.

In this manual, after a short description of EPV for WMQ input data, a simple four step process to do that is presented.

Sample JCLs are also provided.



2 Mandatory input data

Some SMF records data are mandatory in order to run EPV for WMQ. If you don't provide them EPV will not produce any usable output.

They are:

- Record 30 subtype 2,3 (Address Space Interval activity);
- Record 70 (RMF CPU activity);
- Record 115 (WMQ Statistics);
- Record 116 (WMQ Accounting).

2.1 SMF 30 subtype 2, 3 records

SMF 30 subtype 2 and 3 records are not produced by default.

To activate SMF interval accounting using the global recording interval the following parameters have to be set in the SMFPRMxx member of the SYS1.PARMLIB library:

- INTVAL(mm) where mm is the interval duration; suggested values are 10 or 15 minutes;
- SYNCVAL(nn) where nn is the minute in the hour that starts the interval; suggested value is 00;

In addition the following parameter have to be set under SYS and SUBSYS sections:

- INTERVAL(SMF,SYNC).

Writing of these records has to be allowed in SMFPRMxx (under the TYPE sub parameter).

2.2 RMF and WMQ records synchronization

It's very important you synchronise SMF and RMF data; to do that you must set the following parameter in the ERBRMFxx member, used by RMF Monitor I, of your SYS1.PARMLIB library:

- SYNCH(SMF).

It's also very important you synchronise WMQ SMF records; to do that you must set to zero the time interval specified by the STATIME parameter provided in CSQ6SYSP.

2.3 SMF 70 records

SMF 70 records are produced by default.

However the following parameters are normally explicitly specified in RMF monitor I (ERBRMFxx member of the SYS1.PARMLIB library):



- CPU, to produce CPU activity information;

Writing of these records also has to be allowed in SMFPRMxx (under the TYPE sub parameter).

2.4 SMF 115 records

To produce SMF 115 the WMQ Statistic Trace, Class 1 has to be activated.

Writing of these records also has to be allowed in SMFPRMxx (under the TYPE sub parameter).

2.5 SMF 116 records

To produce SMF 116 the WMQ Accounting Trace, Class 1 has to be activated.

Writing of these records also has to be allowed in SMFPRMxx (under the TYPE sub parameter).



3 Other suggested input data

Using only the mandatory data will result in a subset of the EPV for WMQ views and analysis. So you are strongly advised to also provide additional info in SMF 115 records by activating also the following trace classes:

- Record 74 subtype 4, (Coupling Facility Structure activity); produced by default; CFDETAIL is normally explicitly specified in RMF Monitor III options,
- Record 115, WMQ Statistic Trace, Class 3¹.

¹ Class 3 is only available for WMQ V7.1 and above.



4 Optional input data

EPV shows QMGR parameter settings, collected by running a JCL that executes specific IBM WMQ commands. The needed information must be gathered daily from each subsystem.



5 Preparing data for a demo

To have a good demo, a few hours worth of data are enough. If you have more systems sharing resources the result will be better. If you had a bad day, with lot of problems, the EPV demo will probably help you understand what happened.

The following steps have to be performed in order to prepare input data for an EPV demo.

5.1 Collect the data

Two JCLs have to be executed to collect all the needed data.

JCL1

The following JCL will select all the necessary SMF records.

Cut and paste it in your JCL library, and do the following customizations:

- CHANGE *smfinput* TO YOUR SMF INPUT FILE NAME
- CHANGE *smfpref* TO OUTPUT FILE PREFIX
- CHANGE *yyyyxx* to the starting and ending Julian date you want to select
- CHANGE *hhmm* to the starting and ending hours you want to select

```
//SEL SMF EXEC PGM=IFASMFDP
//SYS PRINT DD SYSOUT=*
//INDD1 DD DSN=smfinput,DISP=SHR
//OUTDD1 DD DSN=smfpref.VBS,DISP=(,CATLG),
// UNIT=SYSDA,SPACE=(CYL,(100,100),RLSE),
// DCB=(LRECL=32760,BLKSIZE=27998,RECFM=VBS)
//SYSIN DD *
INDD(INDD1,OPTIONS(DUMP))
OUTDD(OUTDD1,TYPE(30(2,3),70,74,115,116))
DATE(yyyyxx,yyyyxx)
START(hhmm)
END(hhmm)
/*
```

JCL2

The following JCL will produce files containing QMGR parameter settings executing specific IBM WMQ commands.

Cut and paste it in your JCL library, and do the following customizations:

- CHANGE *mqprefix* TO YOUR WMQ LIB PREFIX
- CHANGE *wmqid* TO YOUR WMQ ID
- CHANGE *seqpref* TO OUTPUT FILE PREFIX



```
//*
//STEP1EB EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//SYSUT1 DD DATA,DLM=MM
/* REXX */
TRACE 'O'
CVTADDR = C2D(STORAGE(10,4)) /* CVTADDR FROM PSA + X'10' */
AMB = STORAGE(D2X(CVTADDR+X2D('154')),8)
R.0=2
R.1=' EPV ==> SYSNAME' AMB
"EXECIO * DISKW OUT (STEM R. FINIS"
IF RC <> 0 THEN EXIT 8
EXIT 0
MM
//*
//SYSUT2 DD DSN=&&PDS(SYS),UNIT=SYSDA,
// DISP=(NEW,PASS,DELETE),
// SPACE=(TRK,(1,1,1)),
// DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB,DSORG=PO)
//*
//AMB EXEC PGM=IRXJCL,PARM='SYS'
//SYSEXEC DD DSN=&&PDS,DISP=(OLD,DELETE,DELETE)
//SYSTSPRT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//OUT DD DISP=SHR,DSN=userid.wmqid.MQCONF
/* DCB=(LRECL=133,BLKSIZE=0,RECFM=FB)
//SYSTSIN DD DUMMY
//*
//QDEFS EXEC PGM=CSQUTIL,PARM='mqid'
//STEPLIB DD DISP=SHR,DSN=mqprefix.SCSQANLE
// DD DISP=SHR,DSN=mqprefix.SCSQAUTH
//SYSPRINT DD DISP=MOD,DSN=seqpref.wmqid.MQCONF
//SYSIN DD *
COMMAND DDNAME(CMDINP)
/*
//CMDINP DD *
DISPLAY QMGR ALL
DISPLAY TRACE
DISPLAY USAGE PSID(*)
DISPLAY STGCLASS(*) ALL
DISPLAY CFSTRUCT(*) ALL
DISPLAY QUEUE(*) ALL
/*
```



5.2 Transfer data to PC

When transferring variable data (VB or VBS) from the mainframe to other platforms it is obviously important to do that without corrupting the logical structure of the records. The JCL to use differs slightly depending on the available File Transfer (FT) tools used.

JCL3 – (you need to use the standard IBM FTP)

The following JCLs will transfer the SMF files produced using the standard IBM FTP. Records are read as if in undefined format in order to avoid FTP eliminating the VB and VBS headers and so corrupting the records. As stated in the comments it is essential not to change the RECFM and BLKSIZE parameters. It's also required that the transfer is done in binary mode.

Cut and paste it in your JCL library, and do the following customizations:

- CHANGE *smfpref* TO INPUT AND OUTPUT FILE PREFIX
- CHANGE FTP parameters (*your.ftp.host.address, user and password*) to appropriate values

```
/* DO NOT CHANGE RECFM=U NOR BLKSIZE=32760 ON //DDSMF
//FTPSTMF EXEC PGM=FTP,PARM='(EXIT'
//SYSPRINT DD SYSOUT=*
//OUTPUT DD SYSOUT=*
//DDSMF DD DSN=smfpref.VBS,DCB=RECFM=U,BLKSIZE=32760,DISP=SHR
//INPUT DD *
your.ftp.host.address
user password
quote PASV
bin
put //DD:DDSMF /smfpref.smf
close
quit
/*
```

JCL 4

The following JCLs will transfer the sequential files produced using the standard IBM FTP. *You only have to substitute JCL and commands in the second step to run any different FT tool.*

Cut and paste it in your JCL library, and do the following customizations:

- CHANGE *wmqid* TO YOUR WMQ ID
- CHANGE *seqpref* TO OUTPUT FILE PREFIX
- CHANGE FTP parameters (*your.ftp.host.address, user and password*) to appropriate values

```
//FTPSTAT EXEC PGM=FTP,PARM='(EXIT'
//SYSPRINT DD SYSOUT=*
//OUTPUT DD SYSOUT=*
```



```
//INPUT DD *  
your.ftp.host.address  
user password  
quote PASV  
ascii  
put `seqpref.wmqid.MQCONF'  wmqid.MQCONF.TXT  
close  
quit  
/*
```



JCL3.1 – (alternative to JCL3 if you don't use the standard IBM FTP)

The following JCL will transfer the files produced using tools other than the standard IBM FTP. A first preliminary IEBGENER step changes the DSCB from VB and VBS to undefined format. A second step transfers the data. It's required that the transfer is done in binary mode.

In the following examples we refer to IBM FTP, you have to substitute JCL and commands in the second step with the ones required to run your FT tool.

Cut and paste it in your JCL library, and do the following customizations:

- CHANGE *smfpref* TO INPUT AND OUTPUT FILE PREFIX
- CHANGE FTP parameters (*your.ftp.host.address, user and password*) to appropriate values

```
/* DO NOT CHANGE RECFM=U NOR BLKSIZE=32760 ON BOTH DD
//UNDSMF EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT2 DD DSN=smfpref.VBS,DISP=MOD,
// DCB=RECFM=U
//SYSUT1 DD DSN=NULLFILE,DCB=*.SYSUT2
//SYSIN DD DUMMY
/*
//FTPSMF EXEC PGM=FTP,PARM='(EXIT'
//SYSPRINT DD SYSOUT=*
//OUTPUT DD SYSOUT=*
//INPUT DD *
your.ftp.host.address
user password
quote PASV
bin
put 'smfpref.VBS' /smfpref.smf
close
quit
/*
```



5.3 Compress the data

When the data is on PC you should compress it (the compression factor is usually very high). Please be aware that compression tools may have limitations on the size of the file they can compress.

5.4 Send the data

You can send data to EPV Technologies in two main ways:

- Uploading the data to the EPV FTP server;
- Creating a CD/DVD and sending it to our local distributor or directly to EPV Technologies via a courier service.

It's always better before to send a small file with only one SMF record type by FTP or e-Mail, so we can confirm everything is correct before spending time sending large amounts of data.



6 Customer support

For any technical problem with or question about EPV for WMQ please write an email to:

epv.support@epvtech.com

For any other issue about EPV for WMQ please write an email to:

epv.info@epvtech.com



Related documentation

The following manuals complement the information provided in this manual:

- *EPV for WMQ V2 Installation and Customization Guide*
- *EPV for WMQ Plus V2 Installation and Customization Guide*
- *EPV for WMQ V2 List of Views*
- *EPV for WMQ V2 Release Notes*
- *EPV for WMQ V2 DataBase Layout*
- *EPV V11 User Interface*