# EPV for z/OS V15
# Refresh Mode

*IT Cost*
*Under Control*

Supporting
**EPV for z/OS V15**

## October 2019

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# Contents

# 1 Introduction

EPV for z/OS Refresh Mode (EPV RM) is a free feature of the EPV for z/OS product.
It allows to run an additional instance of the product, in parallel with the standard one, to process the current day data and provide “near line” (with some delay) reports of systems and applications performance.

EPV RM most important characteristics are:
a) it has absolutely no impact on standard EPV for z/OS processing;
b) it uses exactly the same code as EPV for z/OS;
c) it can be run as many times as needed;
d) it only produces the EPV for z/OS daily pages (no trend reports).

# 2 Architecture

Customers collecting data once a day process all the previous day data just after midnight by running the ALLPHASES.BAT file. These customers normally send SMF and other input data, from z/OS to the system where EPV products run, at the end of the day just before running ALLPHASES.BAT.

To use EPV RM they should send the input files more times during the day at a pace that should match the EPV RM scheduling frequency (if you want to run RM every 2 hours it has no sense dumping SMF every 4 hours or once a day).
In this case EPV RM will take input from the EPV zParser input folders and it will run both the EPV zParser and EPV for z/OS products.

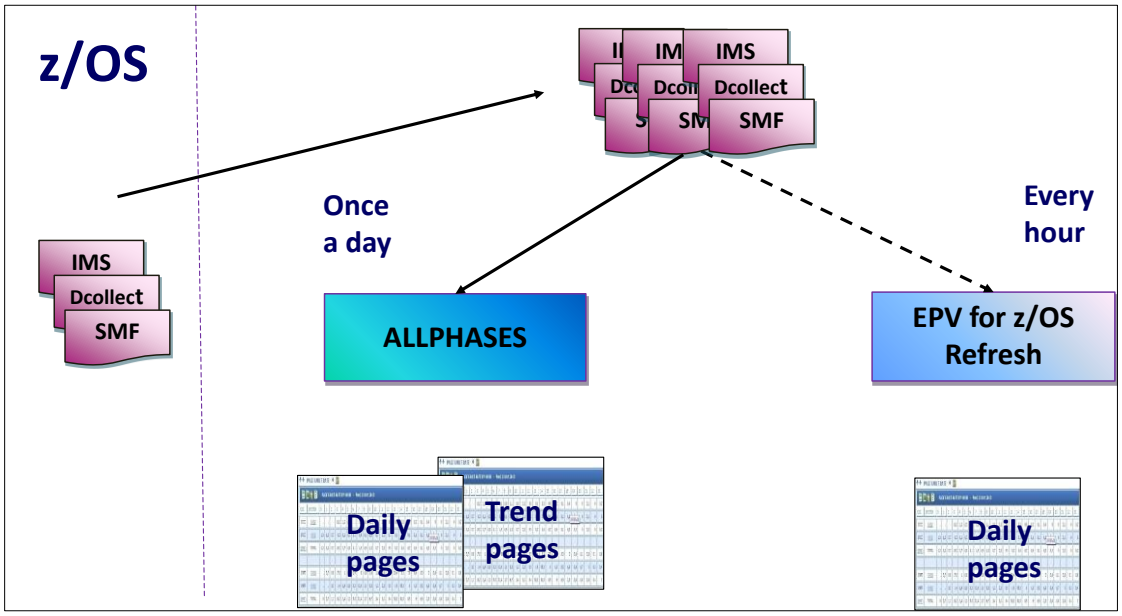


**Figure 1**

Customers collecting data in continuous mode (with the EPV Agents) normally send SMF and other input data, from z/OS to the system where EPV products run, as soon as they are produced or at fixed times during the day (e.g. every hour).

To exploit EPV RM they should use the DB staging technique which allows EPV zParser to cycle on more than one DB in order to minimize data collection interruptions.
In this case EPV RM will take input from the EPV zParser “current” DB (0) while EPV for z/OS (and other EPV products) will take input from the “previous day” DB (-1).

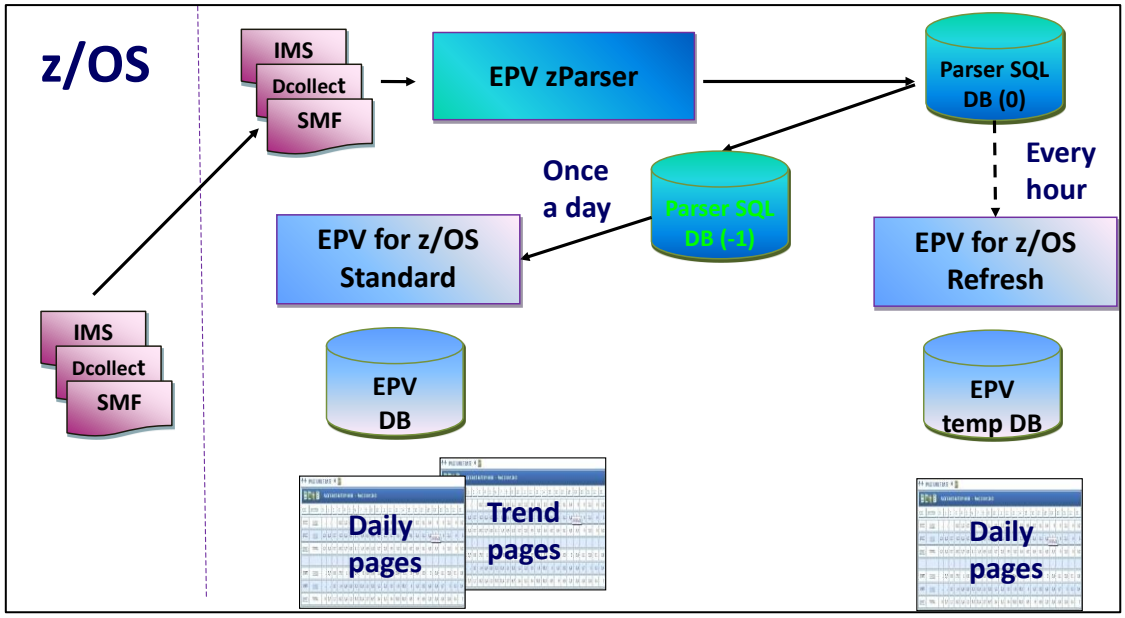
z/OS
IMS
Dcollect
SMF
EPV zParser
Parser SQL DB (0)
Every hour
Once a day
Parser SQL DB (-1)
EPV for z/OS Standard
EPV for z/OS Refresh
IMS
Dcollect
SMF
EPV DB
EPV temp DB
Daily pages
Trend pages
Daily pages

**Figure 2**

# 3 Prerequisites

The only prerequisite to run EPV RM is a working profile configured for EPV for z/OS V15.

# 4 Customization

In order to create and customize the new profile to be used by EPV RM, the RefreshModeInst.exe program has to be executed.

RefreshModeInst.exe is located in the EPVROOT/PRODUCTS/EPVZOS_V15 folder.

This program allows to copy the profile you currently use to run the EPV for z/OS standard process and to create a new set of Databases using the original Database names with the _REF suffix (e.g. MDETA_EPV becomes MDETA_EPV_REF).
When data are collected in once a day mode a new ZPARSER DB is also created.

When RefreshModInst.exe is executed the following steps have to be performed:

1. Choose the profile name you want to copy;
   enter Y to use the default profile name (it is the last profile created) or N to copy a different profile; if you choose 'N' you have to specify the profile name you want to use.

2. Choose the HTM_REF path where you want to create the HTML pages; enter Y to use the default path or N to specify a different HTM_REF folder.

3. Choose the WORK_REF path where you want to create the work area; enter Y to use the default path or N to specify a different WORK_REF folder.

4. Enter Y to complete the creation of the Refresh Mode profile; before pressing Y please verify that the MYSQL/SQL SERVER service is active.

**WARNING**: Please remember that the EPV RM profile can't be modified; if for any reason you need to change it, you have to delete it and to create it again.

The RefreshModeInst flow is shown in Figure 3.

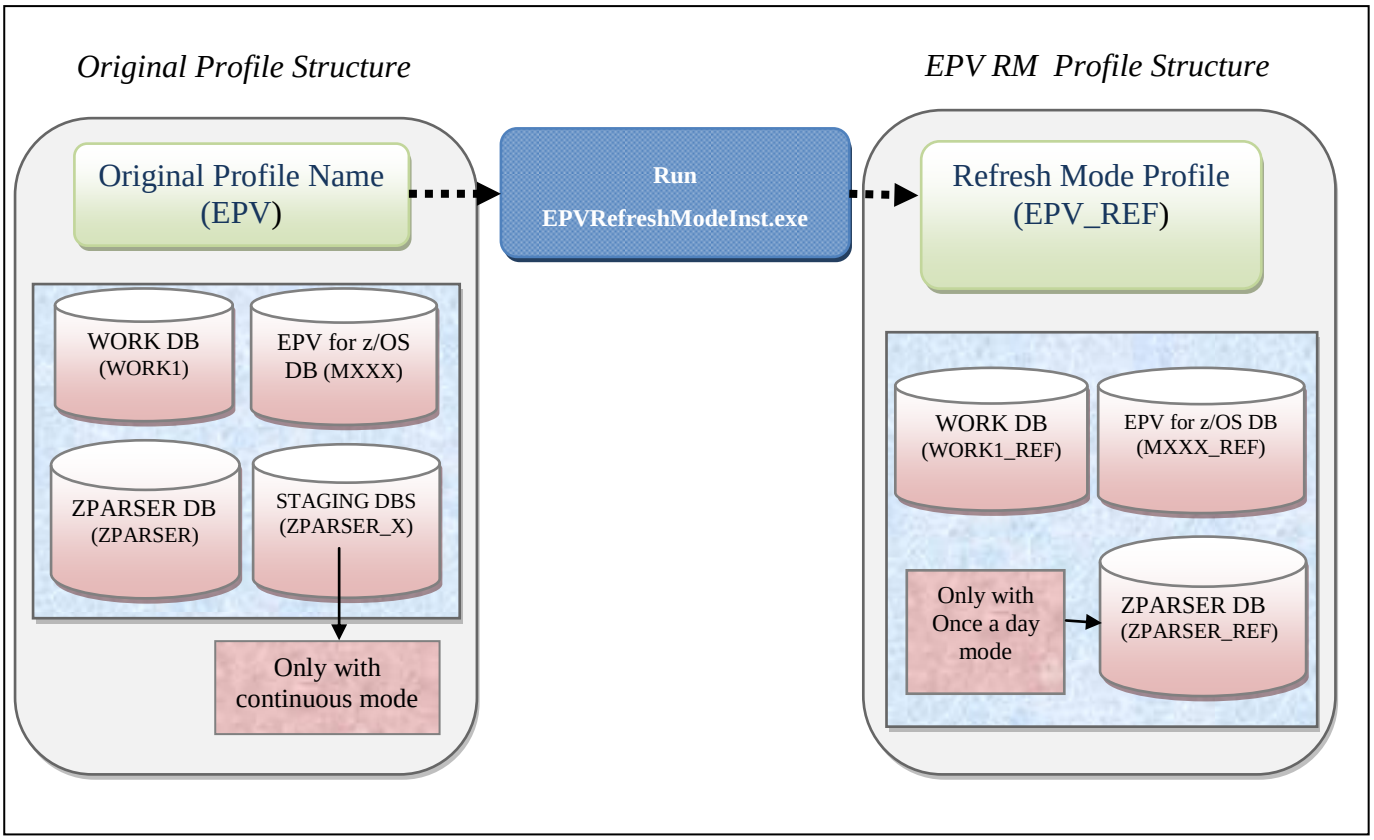
Original Profile Structure
EPV RM Profile Structure
Original Profile Name (EPV)
Run EPVRefreshModeInst.exe
Refresh Mode Profile (EPV_REF)
WORK DB (WORK1)
EPV for z/OS DB (MXXX)
ZPARSER DB (ZPARSER)
STAGING DBS (ZPARSER_X)
Only with continuous mode
WORK DB (WORK1_REF)
EPV for z/OS DB (MXXX_REF)
Only with Once a day mode
ZPARSER DB (ZPARSER_REF)

**Figure 3**

# 5 Using the EPV Setup

You can also create the Refresh Mode profile by using the EPV_Setup.exe program that you can find in EPVROOT/SETUP.
To build an EPV for z/OS Refresh Mode profile starting from your actual profile, please select "Create z/OS RM profile" from the top left dropdown menu as seen in figure 4

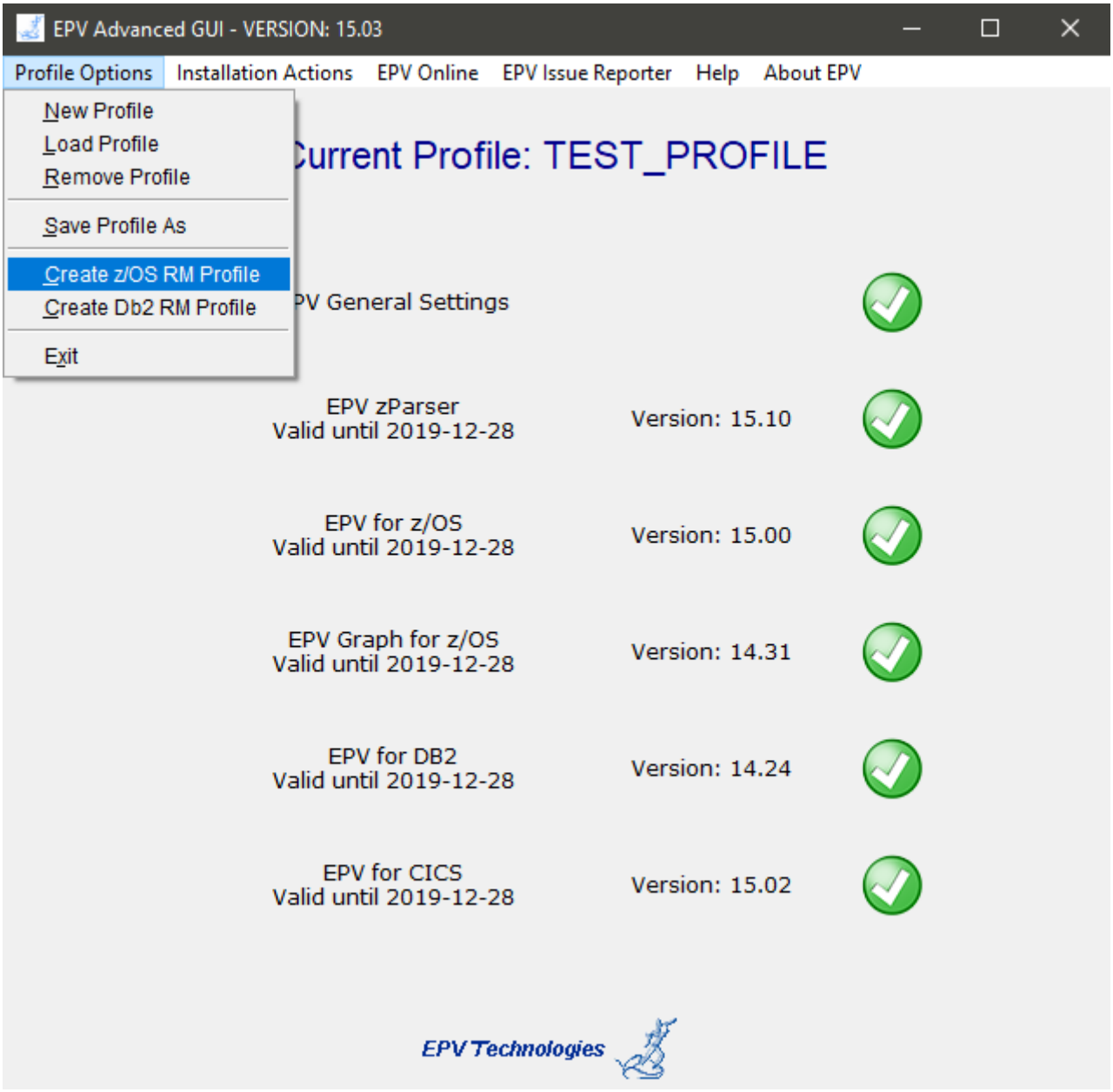


**Figure 4**

A DOS screen will be opened (Figure 5) and the same options described in the previous chapter for the manual customization will be prompted.
At the end of the procedure a new profile will be created named as the parent profile a _REF suffix (*$ProfileName*_REF).

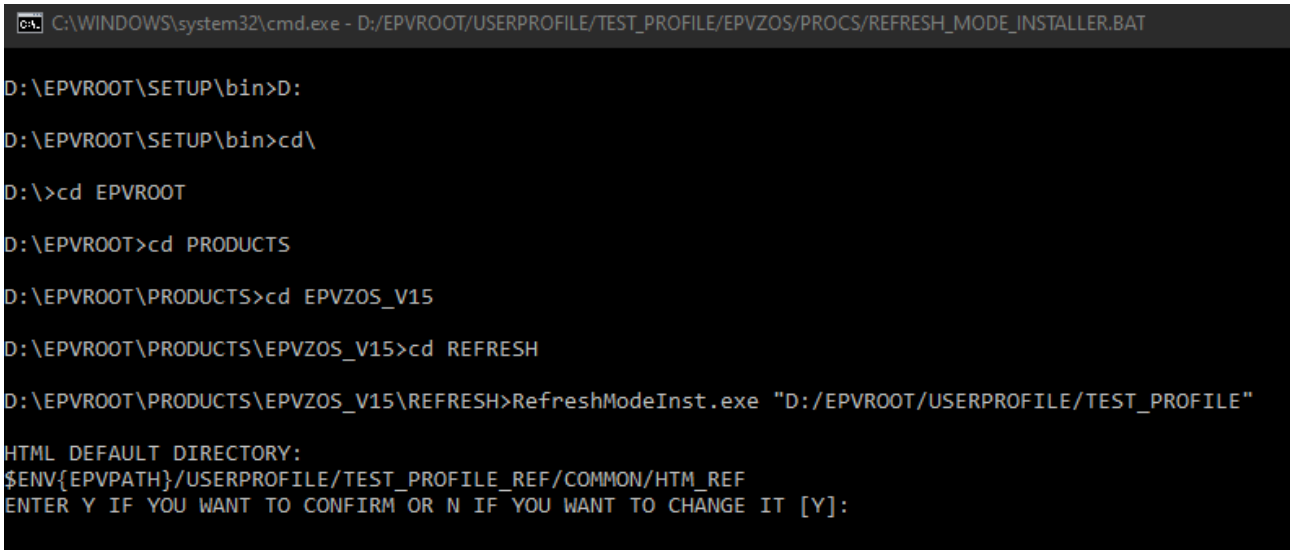
C:\WINDOWS\system32\cmd.exe - D:/EPVROOT/USERPROFILE/TEST_PROFILE/EPVZOS/PROCS/REFRESH_MODE_INSTALLER.BAT
D:\EPVROOT\SETUP\bin>D:
D:\EPVROOT\SETUP\bin>cd\
D:\>cd EPVROOT
D:\EPVROOT>cd PRODUCTS
D:\EPVROOT\PRODUCTS>cd EPVZOS_V15
D:\EPVROOT\PRODUCTS\EPVZOS_V15>cd REFRESH
D:\EPVROOT\PRODUCTS\EPVZOS_V15\REFRESH>RefreshModeInst.exe "D:/EPVROOT/USERPROFILE/TEST_PROFILE"
HTML DEFAULT DIRECTORY:
$ENV{EPVPATH}/USERPROFILE/TEST_PROFILE_REF/COMMON/HTM_REF
ENTER Y IF YOU WANT TO CONFIRM OR N IF YOU WANT TO CHANGE IT [Y]:

**Figure 5**

# 6 Running EPV RM

In order to run EPV RM you need to execute the REFRESH_MODE_ZOS.BAT located in the following folder:
EPVROOT\USERPROFILE*$ProfileName*_REF\EPVZOS\PROCS.

This batch runs the REFRESH_MODE_ZOS.exe main program.
Depending on the data collection mode (continuous or once a day) it will run different steps.

**WARNING:** Please remember that regardless of the data collection mode you use (once a day or continuous) the content of the HTML and WORK folders is deleted every time the refresh mode cycle is run.

## 6.1 Collecting Data once a Day

Although when collecting data in once a day mode input files can be sent all together at a specific moment (normally just after midnight), to exploit EPV RM it is necessary to schedule the sending of the files multiple times during the day.

The input files you want to load has to be transferred to the input folder of the original profile (e.g. EPVROOT/USERPROFILE/*$ProfileName*/INPUT/EPVZPARSER_INPUT/SMF_INPUT for SMF files) and then the REFRESH_MODE_ZOS.BAT has to be executed.

The sending of the input files to load must be coherent with the EPV RM scheduling in order to guarantee that those files are completely transferred before running EPV RM (the EPV RM scheduling times depends essentially on the size of the file to load; the largest the file the greater must be the delay between the scheduling time of the files transfer and the execution of EPV RM).

Each time EPV RM runs the content of the EPV zParser and EPV for z/OS DBs is deleted; all the input files transferred up to that moment to the input folder are then loaded and the HTML pages are created.
In once a day mode the REFRESH_MODE_ZOS.BAT runs the full EPV zParser process and the EPV for z/OS daily process. As already discussed, EPV RM doesn't produce the EPV for z/OS trend reports.

**NOTE:** Remember that you can also run EPV RM manually. In this case you should manually put the files you want to load in the input folder of the original profile and then you can manually run REFRESH_MODE_ZOS.BAT.

## 6.2 Collecting Data in continuous mode

The input files you want to load have to be transferred to the input folder of the original profile (e.g. EPVROOT/USERPROFILE/*$ProfileName*/INPUT/EPVZPARSER_INPUT/SMF_INPUT for SMF).

As for the standard procedure, each time a file is sent to an input folder an additional flag file, indicating the correct file transfer completion, has to be sent. The flag file can be an empty file but the name should be the same of the input file with the _END suffix (e.g. inputfilename_END).
Once the input files are completely transferred and loaded into the EPVzParser DB (Example: ZPARSER_1) the REFRESH_MODE_ZOS.BAT can be executed.

In continuous mode, each time EPV RM runs the content of the EPV for z/OS DBs is deleted.
Then EPV RM runs the DBDEACCUM process (final step of the EPV zParser process) and the EPV for z/OS daily process (NIGHTBATCH_ZOS.exe) which processes the data that are loaded inside the current staging DBs populated with the data sent up to that moment.
As already discussed, EPV RM doesn't produce the EPV for z/OS trend reports.

When processing multiple systems data, it's normally a good practice to synchronize the production of the input files. This will allow to have a full and coherent picture of all the systems at specific moments of the day (e.g. every hour you can force the switch of the SMF data sets).

The sending of the input files to load must be coherent with the EPV RM scheduling in order to guarantee that those files are completely transferred and loaded in the EPV zParser DB before running EPV RM (the scheduling times depend essentially on the size of the file to load; the largest the file the greater must be the delay between the scheduling time of the file's transfer and the execution of the EPV RM tool).

The REFRESH_MODE_ZOS.exe flow is shown in Figure 6.

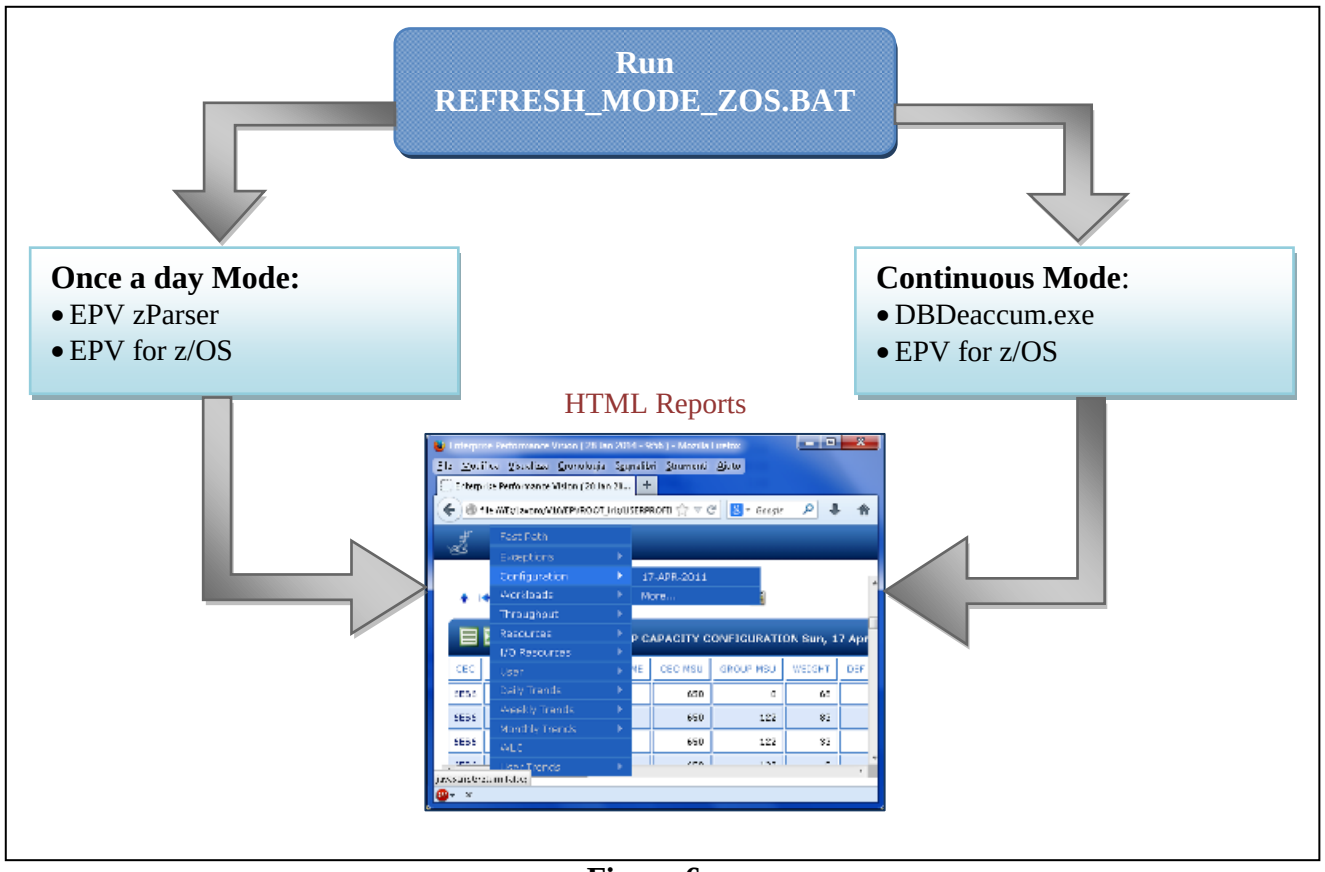


**Figure 6**

# 7 HTML Pages

The HTML Pages produced by EPV RM are located, by default, in the following path: EPVROOT/USERPROFILE/*$ProfileName*_REF/COMMON/HTM_REF.

As already discussed, please remember that:

- regardless of the data collection mode you use (once a day or continuous) the content of the HTML and WORK folders is deleted every time the refresh mode cycle is run;
- EPV RM doesn't produce the EPV for z/OS trend reports.

# 8 Customer support

For any technical problem with or question about EPV for z/OS Refresh Mode write an email to:

epv.support@epvtech.com

For any other issue about EPV for z/OS Refresh Mode please write an email to:

epv.info@epvtech.com

# Related documentation

The following manuals complement the information provided in this manual:

- *EPV zParser V15 Installation and Customization*
- *EPV for z/OS V15 Installation and Customization*
- *EPV V15 Messages and Codes*