

IBM® Power® Draw Capture Installation and Usage Guide

Overview

The IBM® Power® Draw capture module is the data collection part of the IBM Power® Draw product. It is distributed as a Multiplatform Java JAR file that can be executed on any platform that has a version 1.8 or higher Java Runtime Environment, including IBM i, AIX, Linux, and Windows. On IBM i, an install process provides commands to facilitate running the process in that environment. There is no license key required to run the capture module.

The capture module can collect extensive Power virtualization and configuration details from an HMC for all managed systems and Ipars running any operating system supported by Power.

IBM® Power® Draw is a chargeable product created by the Technology Expert Labs team. IBM® Power® Draw creates interactive diagrams that detail the hardware and configuration of a Power virtualized environment based on the capture files collected by the capture module.

IBM i Installation

To install or update the capture module on IBM i:

- Transfer the distribution jar file (typically named pwrcapture.jar) to the IBM i IFS using the method of your choice: ACS, FTP, SCP, etc. The file must be transferred as a binary file.
- Open the PASE execution environment with the command: CALL QP2TERM
- Change to the directory where you uploaded the jar file: cd directoryname
- Execute the jar file: java -jar pwrcapture.jar
- The install process will look similar to:

```
$
> cd /home/vgreene
$
> java -jar pwrcapture.jar
Looking up existing version
No current properties installed
Installing new version
Creating Save file
CRTSAVF FILE(QZRD PWRDRW/QZRD PWRCAP) TEXT('PowerCapture')
CPC7301: File QZRD PWRCAP created in library QZRD PWRDRW.

211200 bytes copied to QZRD PWRCAP.FILE
RSTLIB SAVLIB(QZRD PWRDRW) DEV(*SAVF) SAVF(QZRD PWRDRW/QZRD PWRCAP) MBROPT(*ALL)
ALWOBJDIF(*ALL) RSTLIB(QZRD PWRDRW)
CPC3703: 3 objects restored from QZRD PWRDRW to QZRD PWRDRW.
```

DLTF FILE(QZRD PWRDRW/QZRD PWRCAP)

CPC2191: Object QZRD PWRCAP in QZRD PWRDRW type *FILE deleted.

187 bytes copied to capture-installer.properties

67933 bytes copied to QZRD PWRCAP.jar

Install Completed

- Press F3 to exit the PASE terminal environment.
- The capture module will have created or updated the library QZRD PWRDRW and created the directory /QIBM/QZRD PWRDRW if it does not already exist.

IBM i Usage

On IBM i, the PWRCAP command is installed in the QZRD PWRDRW library. You can add QZRD PWRDRW to your library list, or run it directly as QZRD PWRDRW/PWRCAP.

The command parameters are:

HMC (required) - Enter the IP address or DNS name of the HMC to query for data.

USER (required) - The User id to use when connecting to the HMC. This user must have access to read commands (ls*) and the viosvr cmd on the HMC. The capture module does not make any changes on the HMC.

PASSWORD (required) - The password for the HMC User.

OUTSTMF - Defaults to output.capture. This is the output filename that will contain all of the collected information. It is a text file that will be created in the directory /QIBM/QZRD PWRDRW/draw_captures/. The directory will be created if it does not exist. You should change this to a name that reflects the captured information - typically the HMC name for full data collection, or managed system name if collecting only one system.

EXTATTR - Extended Attribute Collection. This defaults to *YES. When set to *YES, commands will be run to collect detailed topology and device name data from the client l pars. This extends the amount of time required to collect information. If you select *NO, the primary impact is the CMNxx/DCxx resource name will not be shown on the drawn diagrams, but the collection may run faster.

MNGSYS - Managed Systems list - defaults to *ALL. You may specify a list of one or more managed system names to collect. If specified, collection will be limited to system names that match the specified case sensitive names. The default of *ALL collects information from all the systems managed by the HMC.

LPAR - LPAR List - defaults to *ALL. You may specify a list of one or more LPAR names to collect. If specified, collection will be limited to lpars with names that match the names in the supplied list. The match is case sensitive. The default of *ALL collects information from all the lpars on the selected systems. Collecting information on only selected lpars may produce incomplete diagrams from IBM® Power® Draw if all the VIOS lpars are not collected.

The PWRCAP command is a long running process that may be submitted to batch to avoid tying up an interactive terminal. If necessary, cancelling a PWRCAP command will simply result in an incomplete capture file, and potentially a hung REST session to the HMC. These can be terminated from the HMC GUI or CLI, but typically will not cause any issues unless you do it thousands of times.

To monitor the progress of PWRCAP, or to assist in troubleshooting, you can find the log files in the /QIBM/QZRDWPWRDRW/logs directory in files stdout.txt and stderr.txt. Progress messages can be found in stdout.log. Use the command: QSH CMD('tail -f /QIBM/QZRDWPWRDRW/logs/stdout.txt') if you wish to monitor the status of the PWRCAP data collection as it executes. If you use this command, you will need to use SysReq-2 to end the monitoring.

Users of the other Technology Expert Labs toolkits with the QZRDHASM library can substitute the command: VIEWLOG OPTION(*TAIL) STMF('/QIBM/QZRDWPWRDRW/logs/stdout.txt')

Upon completion, the output file name specified by the OUTSTMF will be located in the /QIBM/QZRDWPWRDRW/draw_captures/ directory. This is a text file that can be displayed by DSPF or transferred to a PC and opened with any text editor. If installed, IBM® Power® Draw defaults to reading files from this directory. If you are using IBM® Power® Draw on another system, or sending a requested capture to the Technology Expert Labs team, just download this capture file using any IFS capable IBM I tool: ACS, FTP, SCP, etc.

Capture files can be sent via email, but be aware that they contain detailed information about the collected environment, including IP addresses, hardware serial numbers, wwns, mac addresses, system and partition names, etc. that may be considered private.

AIX/Linux/Windows Installation

- Transfer the distribution jar file (typically named pwrapture.jar) to the location of your choice in the filesystem. There is no installation required -- you can run the process from the jar file in any directory as long as you have a Java runtime environment (JRE) at 1.8 level or higher available.

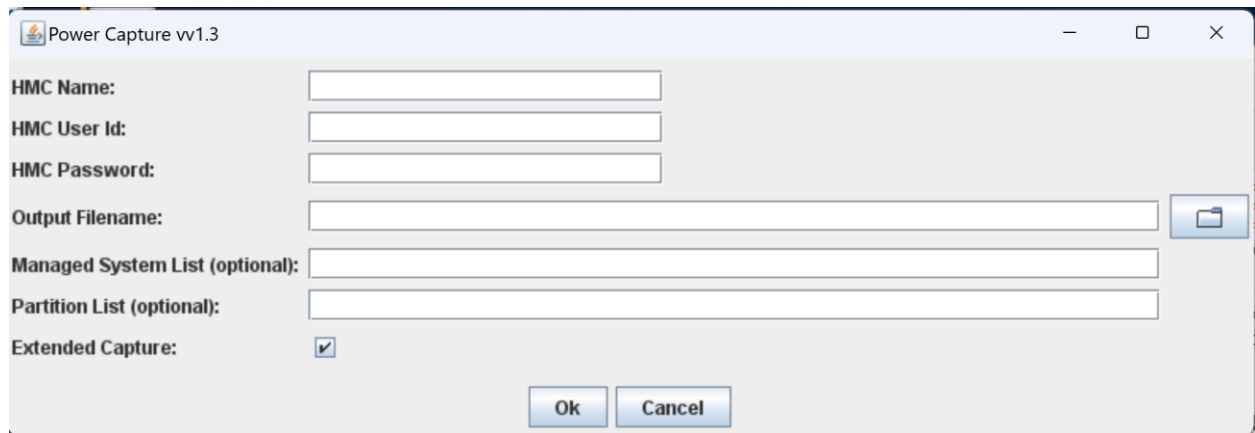
AIX/Linux/Windows Usage

On any system with a version 1.8 or higher Java Runtime environment, you can execute the pwrapture.jar file using the Java command.

If your environment is able to display a GUI window (Microsoft Windows or Unix with XWindows), you can run the command without options and fill in the prompts in the displayed window:

```
java -jar pwrapture.jar
```

The GUI prompt looks like this:



Please note that the GUI display will only show if there are no parameters entered to the command, and your session is capable of a GUI display.

Or you can run the command with command-line options:

```
java -jar pwrapture.jar -h hmcName [-u hmcuserid] [-p hmcpassword] [-o outputFileName] [-m managedSystemList] [-l partitionList] [-e]
```

-h (required) - Enter the IP address or DNS name of the HMC to query for data.

-u (required) - The User id to use when connecting to the HMC. This user must have access to read commands (ls*) and the viosvr cmd on the HMC. The capture module does not make any changes on the HMC.

-p - The password for the HMC User. You may omit this parameter to be prompted for the password if you are running on a real terminal session. Prompting is not allowed on pseudo-terminals.

-o (required) Output File name. This is the output filename that will contain all of the collected information. It will be created in a draw_captures subdirectory of the current directory at the time of the command execution. The subdirectory will be created if it does not exist. This is a text file that will be created in the draw_captures subdirectory of the current directory at the time of command execution. The directory will be created if it does not exist. You should change this to a name that reflects the captured information - typically the HMC name for full data collection, or managed system name if collecting only one system.

-m Managed Systems list - You may specify a comma separated list of managed system names to collect. If specified, collection will be limited to system names that match the specified case sensitive names. Omitting this parameter collects information from all the systems managed by the HMC. Be sure to follow the rules of your operating system or shell to quote parameters.

-l LPAR List - You may specify a comma separated list of one or more case sensitive LPAR names to collect. If specified, collection will be limited to lpars with names that match the names in the supplied list. The match is case sensitive. Omitting this parameter collects information from all the lpars on the selected systems. Collecting information on only selected lpars may produce incomplete diagrams from IBM® Power® Draw if all the VIOS lpars are not collected.

-e Disable Extended Attribute Collection. When specified, extended attributes will not be collected. By default, extended commands will be run to collect detailed topology and device name data from the client lpars. This extends the amount of time required to collect information. If you specify the -e option extended data will not be collected. The primary impact is the CMNxx/DCxx /ent/fcs resource name will not be shown on client lpars on the drawn diagrams, but the collection may run faster.