



## Metron - Athene, Inc.

Thank you for choosing to download Metron's Athene for z/OS software.

### **Background**

Athene allows an enterprise to optimize on-going capacity, minimize over-spending on hardware, avoid the costs of performance crises, guarantee service levels, and alert on trends to know when a capacity issue will begin to emerge. You can also model how to avoid potential performance problems, evaluate tuning and management strategies in advance, not in crisis mode.

You are invited to use this free download to collect and return data to Metron for a FREE z/OS Capacity Audit and Projection. This document contains instructions for implementing the Athene for z/OS Acquire data capture module and collecting that data. The download package in total contains:

- Athene zOS Getting Started Guide (this document)
- Athene zOS Acquire Sample Control Card text file
- Athene 8.60 zOS Acquire zip file containing items to upload to the mainframe

### **FREE z/OS Capacity Audit and Projection**

Metron's Athene for z/OS offers a range of features to enable you to analyze z/OS performance across your entire estate, report and create trends of behavior and analytically model future scenarios to optimize configurations and expenditure.

To receive the FREE z/OS Capacity Audit and Projection service, please follow the instructions below to collect three to five days of data for a maximum of three z/OS LPARs. These LPARs can all be on the same machine, or on up to three different ones.

Once the Athene for z/OS data has been collected, please FTP it to Metron for report generation.

Your FREE z/OS Capacity Audit and Projection report will be returned to you within approximately five working days.

For technical questions, please contact:

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## FTP Information

All the output files are regular text files, so do not need to be transferred in binary or with any special handling.

FTP Site: <ftp.metron.co.uk>

User: zoscapacity

Password: Will be e-mailed to you following registration to download the software

## What the Athene for z/OS Acquire does

Athene for z/OS can be installed on any of the IBM z/OS supported releases.

**Acquire** captures performance data from an IBM or compatible mainframe running z/OS. It works by reading dumped SMF datasets, under control of parameters that tell it what systems to capture data for, possibly what dates and times to bracket the data, and other optional information.

### RMF, SMF Record Types and other sources of data for Acquire

**Acquire** takes data directly from a dumped SMF dataset. The following RMF and SMF records **must be present**:

- RMF types 70 subtype 1, 72 subtype 3, and 74 subtype 1

The following record types (and extensions) are **optional**:

- SMF type 30 subtypes 1 through 6 (Job/STC/TSU details)
- RMF type 71 (Central and Expanded Storage use)
- RMF type 73 (Channel path use)
- RMF type 74 subtype 4 (Coupling Facility use)
- RMF type 75 (Paging datasets)
- RMF type 78 (Channel-to-Controller connection mapping)
- DB2 type 100 subtype 0 (system data)
- CICS type 110 subtype 1 (transaction records)



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## Procedures for the installation of the Athene z/OS acquire:

The **Acquire** distribution comprises two files as per the following list:

**JCLLIB.XMI**            **Unloaded JCL library in TSO TRANSMIT format**  
**22 Members**            ##README, ACQDASDC, ACQDASDS,  
ACQEDIT, ACQUIREG, ASMGLOBL, CKMOUNT,  
COLMODEL, COLMULTI, DEDUPSMF, LINKEDIT,  
LINKGBL, MAKEHFS, MAKEWARE, PUSHDATA,  
PUSHONE, RUNCKMNT, SAVEDICT, SCAN,  
SMFIDCHG, USERGBL, USERGBL2

**OBJLIB.XMI**            **Unloaded object library in TSO TRANSMIT format**  
**5 Members**            ACQOBJnn, ACEOBJnn, DASOBJnn, PSHOBJnn,  
SMFOBJnn  
(where nn is the release level, currently 86 for  
8.60)

## Installing the Acquire JCL

Carry out the following steps to install the JCL library for **Acquire**.

- Allocate a sequential file on your mainframe. Using ISPF, allocate it as follows:

Data Set Name	(HLQ).ACQUIRE.JCLLIB.XMI
Space Units	CYL
Primary Quantity	1
Secondary Quantity	1
Directory Blocks	0
Record Format	FB
Record Length	80
Block Size	8000 (or any other convenient block size).

- Using FTP or similar, upload file **JCLLIB.XMI** into the file you have just created. You **must** transmit the file as **BINARY** data.
- From TSO option 6, issue the command RECEIVE INDS(<filename>) using the name of the file you have just created and uploaded the JCL library into. You will be presented with messages similar to these:



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### **INMR901I Dataset METRON.AZD0860.JCLLIB from METRON on SYS1**

#### **INMR906A Enter restore parameters or 'DELETE' or 'END' +**

- You may accept the name to be used by pressing Enter, or change it by entering :

**DA(<your dataset name>)**

- The sample JCL library will then be restored, ready for use. If you can browse the members in this new library then (HLQ).ACQUIRE.JCLLIB.XMI is no longer needed and can be deleted

### **Installing the Acquire Programs**

Carry out the following steps to create the **Acquire** program library and link-edit the **Acquire** programs into it.

- Allocate a sequential dataset on the mainframe to hold the uploaded copy of the issued object code. Using ISPF, allocate it as follows:

Data Set Name	(HLQ).ACQUIRE.OBJLIB.XMI
Space Units	CYL
Primary Quantity	1
Secondary Quantity	1
Directory Blocks	0
Record Format	FB
Record Length	80
Block Size	8000 (or any other convenient block size).

- Using FTP or similar, upload file OBJLIB.XMI into the file you have just created. You **must** transmit the file as **BINARY** data.
- Using TSO option 6 issue the command RECEIVE INDS(<filename>) using the name of the file you have created and uploaded the object code into.
- You will be presented with messages similar to these:

### **INMR901I Dataset METRON.AZD0860.OBJLIB from METRON on SYS1**

#### **INMR906A Enter restore parameters or 'DELETE' or 'END' +**

- You may accept the name to be used by pressing Enter, or change it by entering :



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### DA(<your dataset name>)

- The object library will then be restored, ready for link-editing. If you browse it you should see members named **ACQOBJ86 ACEOBJ86 DASOBJ86 PSHOBJ86** and **ASXOBJ86**
- **Edit the member LINKEDIT** in the JCL library, so that the dataset names etc. are in accordance with your site naming conventions. Particularly check the input object and destination load library names match what you intend to use.
- **Run the LINKEDIT job.** The **Acquire** programs will be linked, and written to a new file (HLQ).AZD0860.LOADLIB. **Check that the job ends with COND CODE = 0000.** If so, dataset (HLQ).ACQUIRE.OBJLIB.XMI is no longer needed and can be deleted. The load library should contain 5 programs, ACQUIRE, ACQDMON, ACQEDIT, ACQPUSH and ACQSMFEX. Note that ACQDMON is link edited with AC(1), but given the right input parameters it does not actually need APF authorization to work.

### Changes to the Athene Acquire JCL member COLMULTI

Use the COLMULTI member in the sample JCL library to run Acquire for z/OS.

The following will need to be changed in addition to job name and the location of the Acquire for z/OS load library:

```
//SMFDATA DD DSN=YOUR.SMF.DATA,DISP=SHR - Dumped SMF Data
//ATHDATA DD DSN=(HLQ).ACQUIRE.DATA, (etc) - Acquire Output File
//PARMDATA DD * - Acquire Parameters
```

### Example Acquire Parameters

*Please use the ones in the separately provided sample file:*

```
*
RUNTYPE=MULTI
*
* Define the targets we wish to process
* REPLACE XXX1 XXX2 and XXX3 WITH EACH LPARs SMF ID (SID)
* REMOVE ONE OR TWO LINES IF NOT NEEDED
TARGET=77777771= XXX1
TARGET=77777772= XXX2
TARGET=77777773= XXX3
```



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Once the data has been captured, it then can be sent to Metron for analysis. This data should be named as follows:

ccccccc.xxx1.xxx2.xxx3

Where "ccccccc" is your company name and "xxx1" "xxx2" and "xxx3" are either the names of the LPARs or the SMF IDs from where data has been captured. If you captured data from fewer than three systems, simply omit the unneeded items. Please also send in the **Acquire** job log using FTP, to a file called:

ccccccc.job.log

where "ccccccc" is again your company name.

### Notes

Only one FREE z/OS Capacity Audit and Projection service per organization is available. The Acquire software may be retained and used for capture of data for additional services requested from Metron.

If you would like more detailed analysis and prediction relating to your z/OS environment, or other platforms, please contact Metron at [sales@metron-athene.com](mailto:sales@metron-athene.com) to discuss requirements, data capture options and costs for such an additional exercise.