

Using **StepOne** you'll explore the DNA of the most powerful Central Processing Complex (CPC) available to your business and governmental clients, the IBM z/Enterprise.

StepOne

2.0

Getting Started



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www.newera.com

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1 Foreword

1.1 Copyright, Trademark and Legal Notices

1.1.1 Copyrights

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1.1.2 License Agreement

This Getting Started Guide describes the installation and operation of StepOne, and the use of The Integrity Controls Environment (ICE) and applications. It is made available only under the terms of a license agreement between the licensee and NewEra Software, Inc. No part of this Guide or the related Software Product(s) may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose, without the express written permission of NewEra Software, Inc.

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1.2 General Information

1.2.1 Who Should Read this Document

Those given the responsibility to install, maintain, and use **StepOne** should read this document. It will explain in detail how it is installed, configured, maintained and optionally used with other ICE core functions. In addition, this Getting Started Guide will provide product use exercises.

1.2.2 Other Documents and Resources

In addition to this document, new users will benefit from the content of these three additional documents:

- The **StepOne** Read Me;
- The Image FOCUS User Guide.

All of these documents are available in PDF format as downloads on the NewEra web site or can be requested directly by contacting NewEra Technical Support by email at the following email address: support@newera.com.

1.2.3 Online Help – PFK1

In addition to the information contained in this document and others, **StepOne** user may access an Online Help Tutorial for any given panel by pressing PFK1 once the panel is fully displayed.

1.2.4 Reporting Problems

When reporting a **StepOne** problem to NewEra Technical Support, please provide the following information so that we may resolve the issue expeditiously.

- A Screen Image of the TSO or IFO Logon Panel;
- A Screen Image The **StepOne** Setup Configuration;
- Any additional information requested by Technical Support;

1.2.5 Technical Support Information

Around-the-clock-support	NewEra Software is dedicated to providing the highest level of technical support to meet our customers' growing needs. In order to meet these needs, NewEra provides technical support, 7 days a week, 24 hours a day.
Reach us by Telephone during Business Hours	Please use the following phone numbers to reach our technical support staff during normal business hours (6 AM to 4 PM Pacific Time): • In North America, dial 1-800-421-5035 • Outside North America, dial 1-408-520-7100 • Support inquiries may also be texted to 669-888-5061
Reach us by Telephone during non-Business Hours	In case of an emergency, during non-business hours, phone the above numbers to receive instructions on how to contact a Technical Support Representative or a Technical Support Manager.
Sending Email	Our technical support staff can be reached by email at support@newera.com. Email messages will be answered by the next business day. Product technical questions or product recommendations may be sent via email.
Help through the NewEra website	You can access technical support from www.newera.com. Click the Support tab at the top of the screen to reach our Technical Support Request page.
Service Levels	NewEra is committed to providing the highest level of quality to our customers by adopting the following criteria for responding to customer requests: • All critical questions received by phone during working hours will be answered within 15 minutes of receiving the request; • Technical questions sent by email, or messages sent through our Technical Support Request page, will be answered by the next business day.
We Want Your Suggestions!	NewEra understands the significance of providing our customers with the highest quality support and welcomes all suggestions as to how we may improve Technical Support.

1.2.6 About StepOne

StepOne is a software audit tool fully supported and licensed by NewEra Software, Inc. that is designed specifically for Information System Auditors facing the challenge of auditing the IBM zEnterprise.

Using **StepOne** you'll explore the DNA of the most powerful Central Processing Complex (CPC) available to your business and governmental clients. The interactive native environment used by **StepOne** allows you to dynamically and automatically create a zEnterprise Configuration Baseline.

Think of this Configuration Baseline as a platform of knowledge upon which you, your team and your client can base ALL more detailed system investigation and remediation. At your fingertips, a click away, are the specifics of all hardware configurations used for Power on Reset (POR) and operating system configurations used for Initial Program Loads (IPL).

For the first time you'll enjoy the advantages of seeing the zEnterprise Fabric from a MACRO perspective. The significance of each individual configuration component and its potential impact on the overall integrity of each Logical Partition (LPAR), the primary control boundary of the zEnterprise, becomes immediately clear.

1.3 System Requirements

1.3.1 Prerequisites

To use **StepOne**, you will need the following:

- zEnterprise Hardware;
- z/OS Operating System;
- Valid TSO UserId;
- Read access authority of the IODF Dataset and
- Authority to allocate datasets using a TSO UserId as a High Level Qualifier (HLQ)

1.3.2 The License Key

No License Key is required to activate **StepOne**. **StepOne** functions will be unlocked automatically each time the installation assigned password is used during **StepOne** logon.

1.3.3 Releases Prior to Release 16.0 of ICE

If you are planning to use **StepOne** in conjunction with the Integrity Controls Environment (ICE) you will need to upgrade to Release 16.0. When upgrading special care should be taken when you do upgrade to 16.0 to remove all pre-existing ICE Libraries. All pre-existing Inspection Reports (logs) and Package/Blueprints (packages) are fully supported in Release 16.0.

1.4 Things to look out for

1.4.1 Application Datasets

StepOne will allocate and subsequently delete its working datasets. Certain datasets used to store user specified values will persist from one execution to the next. You should evaluate the need to manually delete these prior to the termination of your engagement.

1.4.2 Application Password

The default **StepOne** logon Password is 'AMAZING'. It is recommended that you evaluate the need for changing this password (See Configuring StepOne) in order to conform its use to match the requirements of your engagement.

1.4.3 Application Resources

StepOne is a memory intensive application. It is best practice to specify the maximum allowable region size when you logon to TSO or Image FOCUS (IFO).

1.4.4 External Security Manager Issues

You will need READ access to the running system IODF Dataset and any other IODF Dataset you may specify when configuring StepOne. In addition you will need to be granted the right to allocate working datasets using your TSO Userid and/or one or more dataset qualifiers you specified when configuring **StepOne**.

1.4.5 ReadMe File

For additional assistance concerning product installation, review the "ReadMe" file associated with the product download.

1.5 Product Limitations

This release of **StepOne** has the following restrictions and/or limitations. If you are uncertain as to how this may affect the operation and/or function of **StepOne** in your z/OS environment, contact NewEra Technical Support at support@newera.com for assistance.

- First, if you have extremely large IODF datasets, there is a potential to exhaust memory during the extraction process. You can change your memory allocation by modifying your region size (you will need to LOGOFF of TSO, then LOGON with a new region size).
- Second, **StepOne** is designed to produce a number of panels, reports and worksheets. Some of the lowest level reporting is not fully implemented in this release. When these report options are selected, a message is displayed.
- Third, **StepOne** advance functions (Component Inspections, Health Checks and Configuration Change History) are dependent on the availability of the Integrity Controls Environment (ICE). When these functions are selected and ICE is not found, a message is displayed.

1.6 Recent Enhancements to StepOne

- Each Operating System Configuration Program (OSCP) is identified by a unique Configuration Identifier. This “ConfigId” is called by name from the IODF Keyword that appears in the LOADxx member used during the Initial Program Load (IPL) of an LPAR. With **StepOne**, the time consuming but required task of matching ConfigIds and LOADxx members in order to identify configuration orphans is fast, efficient, and totally automated.

StepOne 2.0

1.7 Planned Enhancements

- Lowest Level Reporting – Completion of the **StepOne** Report Set.
- Email Support – Addition of Email Support when operational inside ICE.
- Baseline Retention – Retention of the IODF Extract as a configuration baseline that can be automatically compared with the current configuration to identify configuration changes between engagements.

1.8 Solving Real-World Control Problems

- “...the conventional wisdom of many Audit Plans and Tools ignore the obvious and begin deep in the details of the Operating System (OS) and External Security Manager (ESM). In doing so, these Plans and Tools often fail to establish an independently verifiable System Baseline. Without such a repository of system identity and configuration relationships, zEnterprise System Auditors can become disoriented, losing their way. Incredibly **StepOne** sets us on the right path each time. We save time; our clients save money...”

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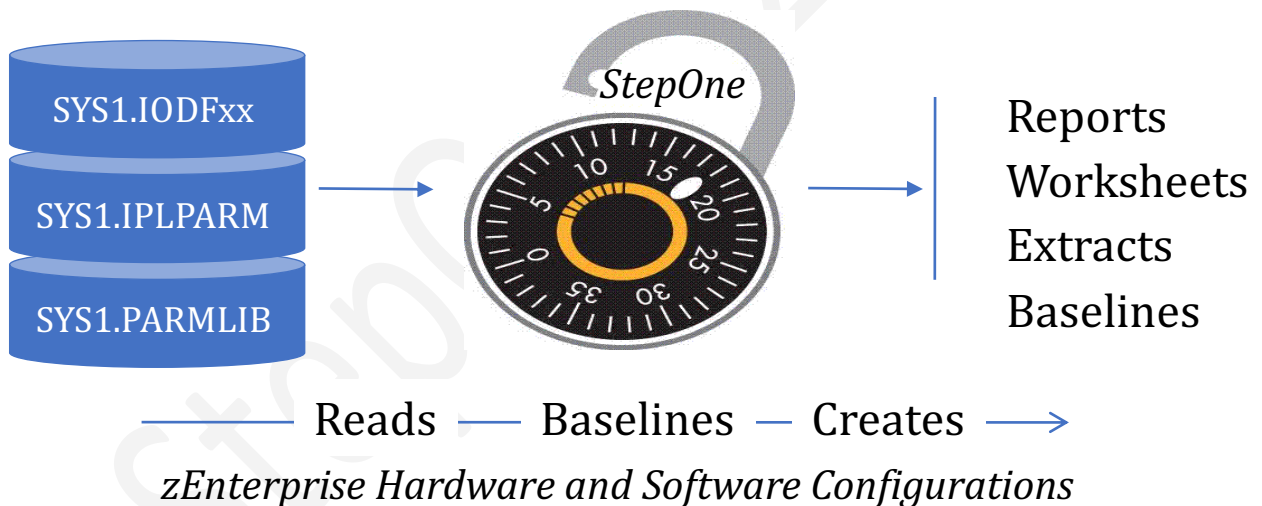
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3 Overview

IBM's zEnterprise Server, AKA the Mainframe, and its companion Operating System z/OS combine to create the most powerful and secure transaction processing environment available to your clients. With a single server capable of supporting thousands of users, accessing hundreds of databases and generating billions of financial transactions per day, the z/Enterprise is an Audit target of material interest and should be included within the scope of any Information Technology Audit.

To understand the zEnterprise you need to envision the use and function of its resources - processors, channel paths, controllers and devices - and how those resources are connected, each to the other, to form the "Fabric" of interconnectivity that defines for each Logical Partition (LPAR) both its resource limits and its potential for resource sharing. To accomplish this, **StepOne** links you directly to the various Configuration Control Programs (CP) that reside at the heart of the system in the Input/Output Definition File (IODF), the Absolute zEnterprise Control Point.



As available and needed, StepOne will access other zEnterprise configuration components – IPLPARM and PARMLIB – to extend your view from the outer edge of the Fabric to the beginning of a z/OS IPL.

3.1 Download

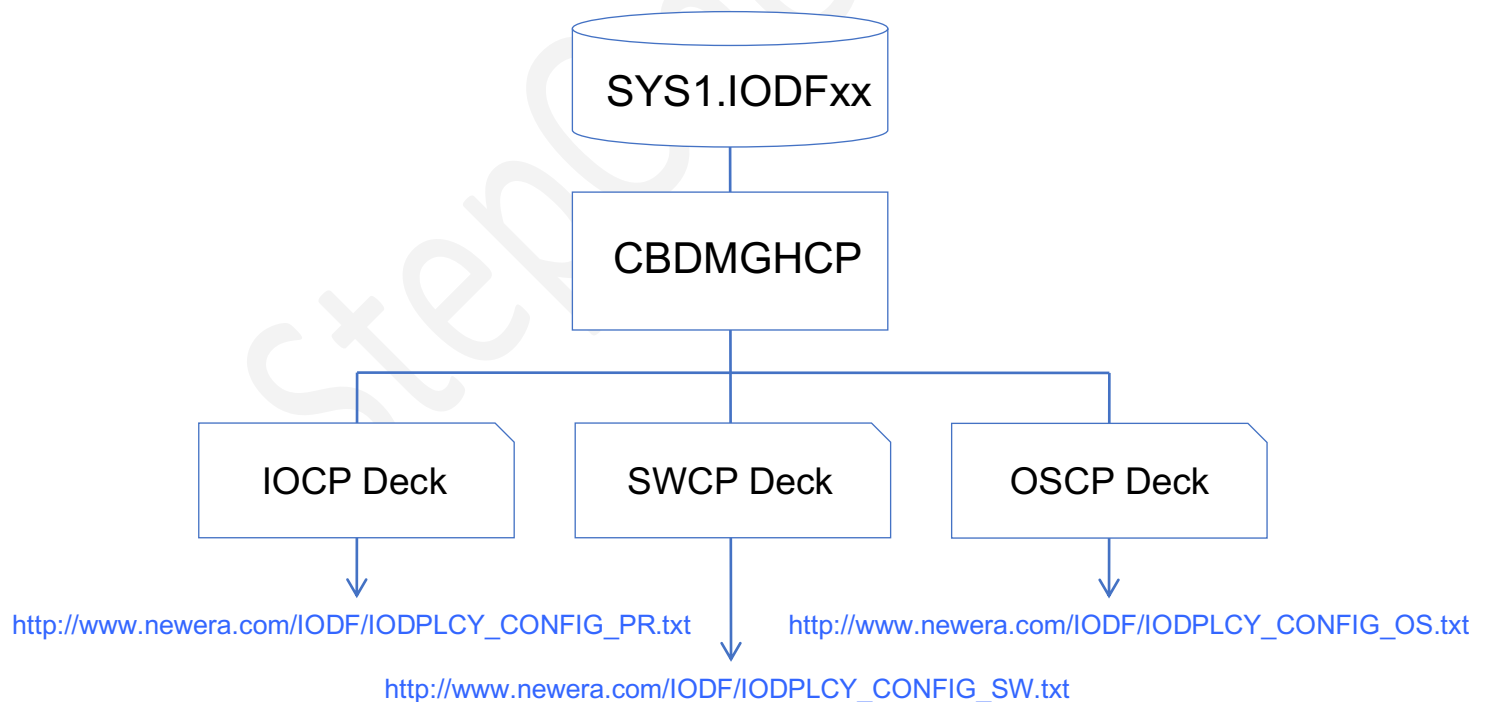
StepOne is a Rexx Executable and it and its Documentation are distributed as a web download file. The **StepOne** Executable is in clear text format while the Documentation is a PDF. Once uploaded to the zEnterprise, the Executable is run directly from the z/OS Time Sharing Option (TSO) Command Shell, generally available under Option 6 of TSO. The Documentation is viewed using the Adobe Acrobat Reader.

3.2 Configuration

StepOne is uniquely configured for each installation by updating a set of Keyword values found in the heading of the Rexx Executable. The **StepOne** documentation and/or your system programmer can help you select settings that best satisfy your specific needs. Settings can be updated repeatedly at any time. Access to the named or discovered IODF Dataset is accomplished using the standard IBM utility module CBDMGHCP. All working datasets are allocated using the TSO UserId of the user executing and are deleted from the system automatically when users terminate their **StepOne** session. **StepOne** has no appreciable resource requirements and will have little or no noticeable impact on overall system performance.

3.3 Extraction

When access to a targeted IODF is available **StepOne** will automatically extract its Configuration Programs (CP) and temporarily store them for use during an active session. The module used for the extraction is provided by IBM and called by **StepOne** as shown below. Those that would like to test the extraction process before actually using **StepOne** should follow the links shown below to download a specific extractor and its operational instructions.



3.4 z/Enterprise Configuration Review

Only when the Configuration Baseline is fully understood should you proceed with the selection of one or more LPAR Audit Targets. The collections of Exhibits described in Section 7 are designed to make the identification and selection of LPAR Targets meaningful, requiring a minimum of assistance from your assigned System Programmer.

4 Configuration

The configuration of each **StepOne** Application installation is controlled by a set of paired Keywords and their assigned values. These are found at the top of the application itself; see the Sample Configuration Records at the end of the section.

To configure **StepOne** open the application in TEXT Editor (TSO/ISPF 3.4 will work) and supply required or optional values as defined below:

4.1 Required Keywords and their Values

A value is required for each of the following. Where applicable, if you would like StepOne to determine a value, set the value to ***AUTO***

4.1.1 IODFDNS

Set this value to ***AUTO*** or to the fully qualified name of a target IODF Dataset. If ***AUTO*** is used the target IODF Dataset will be that currently in use by the running system.

4.1.2 WORKHLQ

Set this value to ***AUTO*** or to the prefix to be used by **StepOne** in its allocation of its temporary working datasets. If ***AUTO*** is used **StepOne** will set the prefix to the users TsoUserId.

4.1.3 OPTION6

Set this value to 'YES' to indicate that the StepOne Application is to be called from TSO and/or IFO Option 6. Set value to 'NOP' if the application is to be called from a BATCH execution process.

4.1.4 SHOWPANEL

When **StepOne** is called from TSO and/or IFO Option 6 set this value to 'YES' to display the application's Interactive Interface. To only display a defined report, set the value to 'NOP'.

4.1.5 PASSWORD

When **StepOne** is configured to operate interactively it is best practice to assign the Application Password using this keyword. Change the password as needed to satisfy the requirements of your engagement. To bypass password processing set the value to a null (").

4.2 Optional Keywords and their Values

4.2.1 PROCID

Used in conjunction with batch report processing this keyword names and limits processing to one or more Central Processing Complexes (CPC) contained within an IODF.

4.2.2 LPARID

Used in conjunction with batch report processing this keyword names and limits processing to one or more Logical Partitions (LPAR) within a named Central Processing Complex (CPC) contained within an IODF.

4.2.3 RLEVEL

Used in conjunction with batch report processing this keyword defines the Report Level that will be used to build and display a configuration path report.

4.2.4 HEADER01 – 10

Used in conjunction with configuration path reporting these Keywords may be used to specify a client report heading that will appear in all reports. Headings are automatically centered in the report.

4.2.5 LOADSN01 – 10

These are special purpose keywords that allow **StepOne** to extend its processing and extraction beyond SYS1-9.IPLPARM and SYS1.PARMLIB, the normal resident locations of the LOADxx members. If such members are to be included in a configuration review, use these keywords to specify their fully qualified dataset value.

4.3 Sample Configuration Records

```

/***** REXX *****/
/* INTEGRITY CONTROL ENVIRONMENT APPLICATIONS - STEPONE */
/*****
/* NewEra Software, Inc. Morgan Hill, CA 95037 - 408.520.7100 */
/* Copyright 2001-2016, 2017, 2018, 2019, & 2020 All Rights Reserved */
/* Last Updated 08.30.2013 Updated By Paul Robichaux prr@newera.com */
/*****
/* Supply the following Required Dataset Name or Qualifier */
/*****

IODFDSN = PROBI1.IODF87 ; WORKHLQ = IFO.IFOP

/* USE '*AUTO*' FOR RUNNING SYSTEM USE '*AUTO*' FOR TSO USERID */

/*****
/* Optional Control Execution Environment */
/*****

OPTION6 = 'YES' ; SHOWPANEL = 'YES'

/* USE 'NOP' FOR BATCH PROCESS USE 'YES' FOR INTERACTIVE */

/*****
/* Optional StepOne Access Password */
/*****

PASSWORD= 'Amazing'

/* Set PASSSSWORD= '' TO BYPASS APPLICATION PASSWORD PROCESSING */

/*****
/* Optionally supply the following configuration names */
/*****

PROCID = 'CPUDA' ; LPARID = 'DBOC'

/* '*AUTO*' TO SHOW ALL PROCESSORS ; '*AUTO*' TO SHOW ALL LPARS */
/* OR USE 'PROCID,PROCID,ETC' OR USE 'LPARID,LPARID,ETC' */

/*****
/* Optionally Modify the Depth of the Reporting Level */
/*****

RLEVEL = '*AUTO*'

/* '*AUTO*' TO REPORT IOCP CONFIGURATION INFORMATION AT ALL LEVELS */
/* OR USE 'NAME' TO TERMINATE REPORTING AT PROCESSORS INFORMATION */
/* OR USE 'LCSS' TO TERMINATE REPORTING AT LOGICAL CHANNEL SUBSYSTEMS */
/* OR USE 'LPAR' TO TERMINATE REPORTING AT LOGICAL PARTITIONS */
/* OR USE 'PATH' TO TERMINATE REPORTING AT CHANNEL PATH IDENTIFIER */
/* OR USE 'CTLU' TO TERMINATE REPORTING AT CONTROL UNITS */
/* OR USE 'UNIT' TO TERMINATE REPORTING AT IODEVICE UNITS (LOWEST) */
/* OR USE 'UCWS' ADD DEVICE UCB DETAIL TO UNIT LEVEL REPORTING */

/*****
/* Optionally Setup a Master Report Header */
/*****

```

```

HEADER01= 'StepOne'
HEADER02= ''
HEADER03= ''
HEADER04= ''
HEADER05= ''
HEADER06= ''
HEADER07= ''
HEADER08= ''
HEADER09= ''
HEADER10= ''

/* ADD TEXT AS NEEDED, BLANKS ARE BLANK LINES, ALL LINES SELF-CENTER */

/*****
/*
/*          Optional Loadxx Member Datasets          */
*****/

LOADSN01= 'PROBI1.SYS1.IPLPARM'
LOADSN02= 'PROBI1.SYS1.PARMLIB'
LOADSN03= ''
LOADSN04= ''
LOADSN05= ''
LOADSN06= ''
LOADSN07= ''
LOADSN08= ''
LOADSN09= ''
LOADSN10= ''

/* Set LOADDXX= '' TO BYPASS ADDING DATASET TO LOADXX SEARCH ORDER */

/*****
/*          PLEASE, NO MODIFICATIONS BELOW THIS HEADER          */
/*          Program Defaults, Subroutines and Logic Follow          */
*****/

```

4.4 The Next Step

When you and/or your assigned z/OS System Programmer have configured **StepOne** and you have been given a TSO User ID and the required dataset allocation authority, you ready to Logon.

5 Logging On

5.1 Under TSO or IFO Option 6

Using the TSO Command Shell, TSO or IFO Option 6, call the STEPONE application by entering its fully qualified dataset and/or dataset(member) name on the panel command line, see the example below, and pressing enter.

```
EX 'your_userid.stepone'
or
EX 'your_userid.workdsn(stepone)'
```

If the PASSWORD Keyword is specified as part of the **StepOne** configuration this action would immediately display the Password Entry Panel. If the PASSWORD Keyword is not active (PASSWORD= ' '), the panel is bypassed and IODF extraction begins immediately.

If the panel is displayed, use PFK1 to display panel specific help and then PFK3 to return.

5.2 The Password Entry Panel

```

StepOne 2.0 - zEnterprise Configuration Baseline

----- Application Access Control -----

Enter Password _____

SMFid: S0W1      System: S0W1      Sysplex: SVSCPLEX Serial: 0CBBB12097
z/OS: V2R4 Last IPLed: MONDAY 09.30.2019 15:42:71

Running IODF: SYS1.IODF00      Defined IODF: PROBI1.IODF87

The Integrity Control Environment ICE is Active

System Security provided by IBM - RACF Release: 7760

```

5.2.1 Entering the Password

If the PASSWORD Keyword specified during the configuration step is matched, this action will immediately begin IODF Extraction; allow 1-3 minutes. When extraction is finished the

StepOne Primary Menu is displayed. If the PASSWORD is not matched the Password Entry Panel is redisplayed.

5.2.2 Selecting the Running IODF

By default **StepOne** will extract and process Configuration Programs (CP) found in the defined/configured IODF. However, if the Running System's IODF is different and it is the preferred target, it may be selected, after the password has been entered, by placing the cursor under the Running IODF dataset name and pressing enter.

This action will cause **StepOne** to process the Running IODF and not the Defined IODF.

5.2.3 The Password Entry Panel Decoded

The Password Entry Panel contains the following Information:

Heading:	Description
SMFId	The System Management Identifier of the system running StepOne .
SYSTEM	The name assigned to the System running StepOne at IPL time.
SYSplex	The name assigned to the Sysplex in which the System is running.
SERIAL	The Serial Number of the Central Processing Complex housing the Sysplex.
z/OS	The Release Level of z/OS used by the System/Sysplex pair.
LAST IPL	The Date and Time of the last successful IPL of the System/Sysplex pair.
RUNNING	The full qualified Dataset name of the IODF Dataset used by running system.
DEFINED	The IODF Dataset defined to StepOne during configuration.

When the Integrity Controls Environment is active the Password Entry Panel contains the following additional Information:

Heading:	Description
ICE Active	Indicates that StepOne is running in the Integrity Controls Environment.
ESM Release	The Name and Release Level of the External Security Manager (ESM).

5.3 The Next Step

Once the IODF extraction is complete and the StepOne Primary Menu is displayed you will want to take a few minutes to familiarize yourself with the zEnterprise Configuration information it contains.

5.3.1 Note this possible Warning Message

If the Serial Number of the running system, as displayed in the Password Entry Panel, does not match any of the CPC Serial Numbers specified in the target IODF, then a warning message is displayed. This detected mismatch has no effect on the extraction process or subsequent use of StepOne.

If your target of interest is the running system, exit your current session and logon again. When you return to the Password Panel enter your password but before you press enter, place the cursor under the Running System IODF value and then press enter. This set of actions will now result in the extraction of the Running System's IODF. If the Warning Message persists consult with your assigned System Programmer.

6 Familiarization

Following a successful logon and IODF extraction the StepOne Primary Menu is displayed.

6.1 The Primary Menu

The **StepOne** Primary Menu shows a summary of the Central Processing Complex (CPC) Units contained in the target IODF. In the sample Primary Menu shown below, eleven CPC Units are listed.

Once the panel is displayed use PFK1 to display panel specific help and then PFK3 to return.

```

StepOne 2.0 - zEnterprise Configuration Baseline

IODFData: PROBI1.IODF87_____ Volume: VPWRKH Date: 2019-09-25 16:16:27

.. -ProcId--Lp --Unit-- Model --Serial-- -----Descriptive Labeling-- Swap --
.. CPC001___6___2097___E26 02XXX22097 COUPLING_FACILITY_1
.. CPC002___6___2097___E26 02YYY22097 COUPLING_FACILITY_2
.. CPC003___16___2097___E56 01ZZZ02097 Z10_2097_003
.. CPCNORTH_18___2097___E56 0CAAA12097 Z10_2097-NORTH
.. CPCSOUTH_13___2097___E56 0CBBB12097 Z10_2097-SOUTH
.. CFNTH___4___2097___E26 00CCC02097 COUPLING_NORTH
.. CPSEA___8___2097___E56 0111112097 Z10_2097_SEASIDE
.. CPUXX___14___2097___E56 0322222097 PROD_PROCESSOR_CPUXX
.. CPUYY___22___2097___E56 0333022097 PROD_PROCESSOR_CPUYY
.. CPUZZ___7___2097___E56 0344E22097 PROD_PROCESSOR_CPUZZ
.. CPUZZA___15___2097___E56 0355522097 PROD_PROCESSOR_CPUZZA
..
..
..
-----Reporting Levels and Options----- .. Reset --
.. Store NO .. LCSS .. LPAR .. PATH .. CTLU .. UNIT .. UCWS .. Print NO

```

If a Serial Number match is found when comparing the Running System's Serial Number to those found within the targeted IODF, the Serial Number matching the target is highlighted.

6.1.1 SWAP

Take note of the Descriptive Labeling 'Swap' option shown in the upper right of the panel. Cursor under this white text and press enter to swap the processor descriptions to an alternate set of descriptive text. To return to the original text cursor under the now red text and press enter.

The Primary Menu Decoded

6.1.1.1 Information Descriptors

The Primary Menu contains the following Information Descriptors:

Heading:	Description
IODFData	The fully qualified name of the selected IODF Dataset.
IODFDate	The date when the selected IODF Dataset was last updated.
Procid	The ID assigned to the Central Processing Complex (CPC).
Lp	The Number of Logical Partitions (LPAR) within a named CPC.
Unit	The IBM assigned Unit description of the named CPC.
Model	The IBM assigned Model description of the named CPC.
Serial	The IBM assigned Serial Number of the named CPC.
Description	The textual description of the CPC.

6.1.1.2 Selectable Reports

The Primary Menu contains the following Selectable Reports:

Heading:	Description
LCSS	Used to select the LCSS Configuration Report.
LPAR	Used to select the LCSS + LPAR Configuration Report.
PATH	Used to select the LCSS + LPAR + PATH Configuration Report.
CTLU	Used to select the LCSS + LPAR + PATH + CTLU Configuration Report.
UNIT	Used to select the LCSS + LPAR + PATH + CTLU + UNIT Configuration Report.
UCWS	Used to add UCW information to the UNIT Configuration Report.

6.1.1.3 Selectable Options

The Primary Menu contains the following Selectable Options:

Heading:	Description
Store	Displays the Move/Copy Utility following Configuration Report display.
Print	Displays the Hardcopy Utility following Configuration Report display.
Reset	Resets the Primary Menu to its default state.

6.1.2 Logical Partition Exploration

Enter either 'I' or 'O' on the command line before a Procid Target and press enter to display either the IOCP LPAR Interface or the OSCP LPAR Interface.

6.2 The IOCP LPAR Interface

The IOCP LPAR Interface presents a listing of Logical Partitions by assigned ProcId, LCSS, LPAR Number and Name and the LPARs Description as defined within the context of the targeted Processor (ProcId).

StepOne 2.0 - zEnterprise Configuration Base Row 1 to 15 of 16									
-----LCSS Partitions-----									
----- Configuration Worksheet - Lpars in CPC:CPC001 -----									
Row Selection: S elect Lpar Baseline									
- Line -----Logical Partitions----- -Active Elements-									
*-----									
S	Numb	-ProcId-	L	N	--Lpar--	-----Descriptive Text-----	Chpid	Cntlu	-IOD-
-	0001	CPC001	0	1	AXOC	OS,SXPlex	147	348	188
-	0002	CPC001	0	2	FGBR	OS,SYPLEX	147	348	188
-	0003	CPC001	0	3	TGBW	OS,SZPLEX	147	348	188
-	0046	CPC001	3	1	RTGP	OS,High_Availibility_Lpar	137	207	145
-	0047	CPC001	3	2	RTTP	OS,XXX_High_Impact_Lpar	134	209	145
-	0048	CPC001	3	3	DDDB	OS,YYY_High_Impact_Lpar	134	209	145
-	0049	CPC001	3	4	RTSP	OS,ZZZ_High_Impact_Lpar	132	205	145
-	0050	CPC001	3	5	CFRX	CF,Primary_CF	3	0	0
-	0051	CPC001	3	6	WDCP	OS,Auto_Finance_Lpar	136	211	145
-	0052	CPC001	3	7	DFER	OS,Health_Insurance_Lpar	141	214	146
-	0053	CPC001	3	8	HJKU	OS,XXX_Low_Impact_Lpar	141	210	146
-	0054	CPC001	3	9	NTH1	CF,SECONDARY_CF_Lpar	6	0	0
-	0055	CPC001	3	A	STH1	OS,YYY_Low_Impact_Lpar	132	205	145
-	0056	CPC001	3	B	EST1	OS,ZZZ_Low_Impact_Lpar	141	210	146
-	0057	CPC001	3	C	WST1	OS,INTERNAL_Control_Lpar	134	209	145

A summary of each LPARs Active Path Elements is presented in the columns headed: Chpid, Cntlu and IOD. Cursor under any specific Active Element, shown in white text, and press enter to display a detailed Component Worksheet listing all of the elements that compose your selection. Use PFK3 to return.

6.2.1.1 Shared Configuration Elements

If you would like to determine which LPARs share Configuration Elements within the selected CPC with another LPAR you must first establish an LPAR Baseline. To do this select the Baseline Target by placing an 'S' before LPAR Target and press enter. This action will redisplay the panel with values associated with the selected LPAR shown above the column headers and highlighted in RED. The '-Active Element-' Header will now read '-Shared Elements-' and the values shown below it: Chpid, Cntlu, I/O should now be read as the configuration shared by an LPAR with the Baseline LPAR.

```

StepOne 2.0 - zEnterprise Configuration Base Row 1 to 15 of 16
-LCSS Partitions-
----- Configuration Worksheet - Lpars in CPC:CPC001 -----
Row Selection: Select Lpar Baseline
- Line -----Logical Partitions----- -Shared Elements-
0047 CPC001 3 2 RTTP OS,XXX High Impact Lpar 134 209 145
S Numb -ProcId- L N --Lpar-- -----Descriptive Text----- Chpid Cntlu -IOD-
- 0001 CPC001 0 1 AXOC OS,SXPlex 106 6 5
- 0002 CPC001 0 2 FGBR OS,SYPLEX 106 6 5
- 0003 CPC001 0 3 TGBW OS,SZPLEX 106 6 5
- 0046 CPC001 3 1 RTGP OS,High_Availibility_Lpar 134 209 145
- 0047 CPC001 3 2 RTTP OS,XXX_High_Impact_Lpar 134 209 145
- 0048 CPC001 3 3 DDDb OS,YYY_High_Impact_Lpar 134 209 145
- 0049 CPC001 3 4 RTSP OS,ZZZ_High_Impact_Lpar 132 205 145
- 0050 CPC001 3 5 CFRX CF,Primary_CF 0 0 0
- 0051 CPC001 3 6 WDCP OS,Auto_Finance_Lpar 134 209 145
- 0052 CPC001 3 7 DFER OS,Health_Insurance_Lpar 134 209 145
- 0053 CPC001 3 8 HJKU OS,XXX_Low_Impact_Lpar 134 209 145
- 0054 CPC001 3 9 NTH1 CF,SECONDARY_CF_Lpar 0 0 0
- 0055 CPC001 3 A STH1 OS,YYY_Low_Impact_Lpar 132 205 145
- 0056 CPC001 3 B EST1 OS,ZZZ_Low_Impact_Lpar 134 209 145

```

To switch your view to non-shared elements press the enter key again. Note that the LPAR Baseline values above the column headers are now shown in YELLOW. The '-Shared Elements-' will now read '-Unique Elements-' and the values shown below it: Chpid, Cntlu, I/O should now be read as configured uniquely to an LPAR when compared to the Baseline LPAR.

6.2.1.1 Unique Configuration Elements

Press enter again to toggle back to the prior element view i.e. between the Shared and Unique Configuration Elements relative to the selected LPAR Baseline. Use PFK3 to return to the Active Element View.

```

StepOne 2.0 - zEnterprise Configuration Base Row 1 to 15 of 16
-LCSS Partitions-
----- Configuration Worksheet - Lpars in CPC:CPC001 -----
Row Selection: Select Lpar Baseline
- Line -----Logical Partitions----- -Unique Elements-
0047 CPC001 3 2 RTTP OS,XXX High Impact Lpar 134 209 145
S Numb -ProcId- L N --Lpar-- -----Descriptive Text----- Chpid Cntlu -IOD-
- 0001 CPC001 0 1 AXOC OS,SXPlex 41 41 42
- 0002 CPC001 0 2 FGBR OS,SYPLEX 41 41 42
- 0003 CPC001 0 3 TGBW OS,SZPLEX 41 41 42
- 0046 CPC001 3 1 RTGP OS,High_Availibility_Lpar 3 0 0
- 0047 CPC001 3 2 RTTP OS,XXX_High_Impact_Lpar 0 0 0
- 0048 CPC001 3 3 DDDb OS,YYY_High_Impact_Lpar 0 0 0
- 0049 CPC001 3 4 RTSP OS,ZZZ_High_Impact_Lpar 0 0 0
- 0050 CPC001 3 5 CFRX CF,Primary_CF 3 0 0
- 0051 CPC001 3 6 WDCP OS,Auto_Finance_Lpar 2 0 0
- 0052 CPC001 3 7 DFER OS,Health_Insurance_Lpar 7 1 1
- 0053 CPC001 3 8 HJKU OS,XXX_Low_Impact_Lpar 7 1 1
- 0054 CPC001 3 9 NTH1 CF,SECONDARY_CF_Lpar 6 0 0
- 0055 CPC001 3 A STH1 OS,YYY_Low_Impact_Lpar 0 0 0
- 0056 CPC001 3 B EST1 OS,ZZZ_Low_Impact_Lpar 7 1 1

```

A summary of each LPARs Shared or Unique Path Elements is presented in the columns headed: Chpid, Cntl and IOD. Cursor under any specific Element, shown in white text, and press enter to display a detailed Component Worksheet listing all Shared and/or Unique elements. Use PFK3 to return to the Active Elements Worksheet.

6.2.2 IOCP LPAR - Active Element Worksheets

The IOCP LPAR Worksheet is supported by three Active Element Worksheets; one each for CHPID, Control Unit and I/O Device Configuration.

6.2.2.1 IOCP LPAR – Active CHPID Configurations

```

StepOne 2.0 - zEnterprise Configuration Bas Row 1 to 14 of 147
--Channel Paths--
----- Configuration Worksheet - 147 Active Channel Paths - Lpar:HBOC -----
Row Selection: Show Unit Control Work Detail
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- -UCW- -----Channel Descriptions-----

S  Numb  -ProcId-  L  --Lpar--  Id  Pid  Type  Rec  Total  -----Descriptive Text-----
-  0001  CPC001    0  AXOC      00  1B0  FC    ---  06913  NONE PROVIDED
-  0002  CPC001    0  AXOC      01  440  FC    ---  06913  NONE PROVIDED
-  0003  CPC001    0  AXOC      02  660  FC    ---  06913  NONE PROVIDED
-  0004  CPC001    0  AXOC      03  260  FC    ---  06913  NONE PROVIDED
-  0005  CPC001    0  AXOC      04  450  FC    ---  06913  NONE PROVIDED
-  0006  CPC001    0  AXOC      05  6A0  FC    ---  06913  NONE PROVIDED
-  0007  CPC001    0  AXOC      06  250  FC    ---  06913  NONE PROVIDED
-  0008  CPC001    0  AXOC      07  3B0  FC    ---  06913  NONE PROVIDED
-  0009  CPC001    0  AXOC      08  180  FC    ---  06432  NONE PROVIDED
-  0010  CPC001    0  AXOC      09  3D0  FC    ---  06432  NONE PROVIDED
-  0011  CPC001    0  AXOC      0A  620  FC    ---  06432  NONE PROVIDED
-  0012  CPC001    0  AXOC      0B  1D0  FC    ---  06432  NONE PROVIDED
-  0013  CPC001    0  AXOC      0C  350  FC    ---  06432  NONE PROVIDED
-  0014  CPC001    0  AXOC      0D  540  FC    ---  06432  NONE PROVIDED

```

6.2.2.2 IOCP LPAR – Active Control Unit Configurations

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 1,694
-----Full Path-----
----- Configuration Worksheet - 348 Active Control Units - Lpar:AXOC -----
Row Selection: Show All CntUnit Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- --Attached Control Units-- -Devices-

S Line -ProcId- L --Lpar-- Id Pid Type Rec Nmb CtlU -Type- Shr Ua,Nmb Nmb -Ucw-
- 0059 CPC001 0 AXOC 02 660 FC --- 001 2000 2107 Not 00,256 001 00032
- 0001 CPC001 0 AXOC 00 1B0 FC --- 001 2000 2107 Not 00,256 001 00032
- 0088 CPC001 0 AXOC 03 260 FC --- 001 2000 2107 Not 00,256 001 00032
- 0117 CPC001 0 AXOC 04 450 FC --- 001 2000 2107 Not 00,256 001 00032
- 0146 CPC001 0 AXOC 05 6A0 FC --- 001 2000 2107 Not 00,256 001 00032
- 0175 CPC001 0 AXOC 06 250 FC --- 001 2000 2107 Not 00,256 001 00032
- 0204 CPC001 0 AXOC 07 3B0 FC --- 001 2000 2107 Not 00,256 001 00032
- 0030 CPC001 0 AXOC 01 440 FC --- 001 2000 2107 Not 00,256 001 00032
- 0060 CPC001 0 AXOC 02 660 FC --- 002 2300 2107 Not 00,256 001 00032
- 0002 CPC001 0 AXOC 00 1B0 FC --- 002 2300 2107 Not 00,256 001 00032
- 0089 CPC001 0 AXOC 03 260 FC --- 002 2300 2107 Not 00,256 001 00032
- 0118 CPC001 0 AXOC 04 450 FC --- 002 2300 2107 Not 00,256 001 00032
- 0147 CPC001 0 AXOC 05 6A0 FC --- 002 2300 2107 Not 00,256 001 00032
- 0176 CPC001 0 AXOC 06 250 FC --- 002 2300 2107 Not 00,256 001 00032

```

6.2.2.3 IOCP LPAR - Active I/O Device Configurations

```

StepOne 2.0 - zEnterprise Configuration B Row 1 to 14 of 1,320
-----Full Path-----
----- Configuration Worksheet - 188 Active I/O Devices - Lpar:AXOC -----
Row Selection: Show All Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- CtlUnits -----Attached Devices-----

S Line -ProcId- L --Lpar-- Id Pid Type Rec CtlU Acc Nmb S Unit Acc -Type- -UCW-
- 0057 CPC001 0 AXOC 02 660 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0001 CPC001 0 AXOC 00 1B0 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0085 CPC001 0 AXOC 03 260 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0113 CPC001 0 AXOC 04 450 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0141 CPC001 0 AXOC 05 6A0 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0169 CPC001 0 AXOC 06 250 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0197 CPC001 0 AXOC 07 3B0 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0029 CPC001 0 AXOC 01 440 FC --- 2000 Alw 001 1 20E0 Alw 3390A 00032
- 0058 CPC001 0 AXOC 02 660 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032
- 0002 CPC001 0 AXOC 00 1B0 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032
- 0086 CPC001 0 AXOC 03 260 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032
- 0114 CPC001 0 AXOC 04 450 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032
- 0142 CPC001 0 AXOC 05 6A0 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032
- 0170 CPC001 0 AXOC 06 250 FC --- 2300 Alw 002 1 23E0 Alw 3390A 00032

```

6.2.3 IOCP LPAR - Shared Element Worksheets

The IOCP LPAR Worksheet is supported by three Shared Element Worksheets; one each for CHPID, Control Unit and I/O Device Configuration.

6.2.3.1 IOCP LPAR – Shared CHPID Configurations

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 106
--Channel Paths--
----- 106 ChpIds Spanned on CPC001 by (3)RTTP & (0)AXOC -----
Row Selection: Show Unit Control Work Detail
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- -UCW- -----Channel Descriptions-----

S Numb -ProcId- L -Target- Id Pid Type Rec Total -----Descriptive Text-----
0097 CPC001 0 AXOC C0 120 OSD --- 00096 OSA
0104 CPC001 0 AXOC C7 400 OSD --- 00016 OSA VMA0
0103 CPC001 0 AXOC C6 520 OSD --- 00016 OSA CMXX EBYX XBZZ IBBSS
0100 CPC001 0 AXOC C3 610 OSD --- 00016 OSA VMGC
0099 CPC001 0 AXOC C2 210 OSD --- 00016 OSA
0089 CPC001 0 AXOC 5A 1A2 FC --- 00008 CPCP PRIMARY
0095 CPC001 0 AXOC 90 --- CIB --- 00000 AXOC to CF2S CFX2
0094 CPC001 0 AXOC 5F 151 FC --- 00000 NONE PROVIDED
0093 CPC001 0 AXOC 5E 341 FC --- 00000 NONE PROVIDED
0092 CPC001 0 AXOC 5D 5B1 FC --- 00000 VIO
0091 CPC001 0 AXOC 5C 5B0 FC --- 00000 NONE PROVIDED
0090 CPC001 0 AXOC 5B 372 FC --- 00000 CPCP SECONDARY
0088 CPC001 0 AXOC 59 1D2 FC --- 00000 NONE PROVIDED
0087 CPC001 0 AXOC 58 221 FC --- 00000 NONE PROVIDED

```

■ Show all Control Unit Sharing of CHPID – C0

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 57
-----Full Path-----
----- 5952 UCWs Shared - ChpId 02 on CPC001 by (3)SGGP & (3)FlCB -----
Row Selection: Show All Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- -----Shared Devices----- Total
0003 CPC001 3 RTTP C0 120 OSD ---
S Line -ProcId- L -Target- Id Pid Type Rec Ctlw Acc Nmb S Unit Acc -Type- -UCW-
0115 CPC001 3 RTTP C0 120 OSD --- 0089 Alw --- - None --- 00001
0116 2003 Alw --- - None --- 00001
0117 2303 Alw --- - None --- 00001
0118 2603 Alw --- - None --- 00001
0119 2903 Alw --- - None --- 00001
0120 2C03 Alw 001 0 2C00 Alw 3390B 00225
0121 2C03 Alw 002 1 2CE0 Alw 3390A 00257
0122 2F03 Alw 003 0 2F00 Alw 3390B 00225
0123 2F03 Alw 004 1 2FE0 Alw 3390A 00257
0124 3003 Alw 005 1 30C0 Alw 3390A 00065
0125 3303 Alw 006 1 33C0 Alw 3390A 00065
0126 3603 Alw 007 1 36C0 Alw 3390A 00065
0127 3903 Alw 008 1 39C0 Alw 3390A 00065
0128 3C03 Alw 009 1 3CC0 Alw 3390A 00065

```

6.2.3.2 IOCP LPAR – Shared Control Unit Configurations

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 6 of 6
-----Full Path-----
----- 6 Cntlus Shared on CPC001 by (3)RTTP & (0)AXOC -----
Row Selection: Show All CntUnit Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- ---Shared Control Units--- -Devices-

S Line -ProcId- L -Target- Id Pid Type Rec Nmb Ctlu -Type- Shr Ua,Nmb Nmb -Ucw-
0001 CPC001 0 AXOC 5A 1A2 FC --- 001 7650 FCTC --- 00,8 000 00000
0002 CPC001 0 AXOC C0 120 OSD --- 002 0F00 OSA Not ---,--- 001 00001
0003 CPC001 0 AXOC C2 210 OSD --- 003 0F20 OSA Not ---,--- 001 00001
0004 CPC001 0 AXOC C3 610 OSD --- 004 0F70 OSA --- ---,--- 001 00001
0005 CPC001 0 AXOC C6 520 OSD --- 005 0F60 OSA Not ---,--- 001 00001
0006 CPC001 0 AXOC C7 400 OSD --- 006 0F30 OSA Not ---,--- 001 00001
***** Bottom of data *****

```

- Show all Sharing of Control Unit – 0F00

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 14
-----Full Path-----
----- Shared Usage of CntUnit 0F00 by LPARs in CPC:CPC001 -----
Row Selection: Show the Shared CntUnit Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- --Selected Control Units-- -Devices-
0002 CPC001 0 HBOC C0 120 OSD --- 002 0F00 OSA Not ---,--- 001 00001
S Line -ProcId- L --Lpar-- Id Pid Type Rec Nmb Ctlu -Type- Shr Ua,Nmb Nmb -Ucw-
0001 CPC001 0 HBOC C0 120 OSD --- 002 0F00 OSA Not ---,--- 001 00001
0002 CPC001 0 IBBR C0 120 OSD --- 002 0F00 OSA Not ---,--- 001 00001
0003 CPC001 0 IBBW C0 120 OSD --- 002 0F00 OSA Not ---,--- 001 00001
0004 CPC001 3 B2SP C0 190 OSD --- 196 0F00 OSA Not ---,--- 001 00001
0005 CPC001 3 CMC1 C0 190 OSD --- 196 0F00 OSA Not ---,--- 001 00001
0006 CPC001 3 F1CB C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0007 CPC001 3 IBB7 C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0008 CPC001 3 K1CP C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0009 CPC001 3 SGGP C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0010 CPC001 3 S1WP C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0011 CPC001 3 S4RP C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0012 CPC001 3 S8GT C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0013 CPC001 3 S9GP C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001
0014 CPC001 3 TCNA C0 190 OSD --- 200 0F00 OSA Not ---,--- 001 00001

```


6.2.3.3 IOCP LPAR - Shared I/O Device Configurations

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 5 of 5
-----Full Path-----
----- 5 Devices Shared on CPC001 by (3)RTTP & (0)HBOC -----
Row Selection: Show All Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition-----Channel Paths- CtlUnits -----Shared Devices-----

S Line -ProcId- L -Target- Id Pid Type Rec CtlU Acc Nmb S Unit Acc -Type- -UCW-
0001 CPC001 0 HBOC C0 120 OSD --- 0F00 Alw 001 0 0F0F Alw OSAD 00001
0002 CPC001 0 HBOC C2 210 OSD --- 0F20 Alw 002 0 0F2F Alw OSAD 00001
0003 CPC001 0 HBOC C3 610 OSD --- 0F70 Alw 003 0 0F7F Alw OSAD 00001
0004 CPC001 0 HBOC C6 520 OSD --- 0F60 Alw 004 0 0F6F Alw OSAD 00001
0005 CPC001 0 HBOC C7 400 OSD --- 0F30 Alw 005 0 0F3F Alw OSAD 00001
***** Bottom of data *****

```

- Show all Sharing of Device – 0F2F

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 14
-----Full Path-----
----- Shared Usage of Device 0F2F by LPARs in CPC:CPC001 -----
Row Selection: Show the Shared Device Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition-----Channel Paths- CtlUnits -----Selected Device-----
0002 CPC001 0 HBOC C2 210 OSD --- 0F20 Alw 002 0 0F2F Alw OSAD 00001
S Line -ProcId- L -Target- Id Pid Type Rec CtlU Acc Nmb S Unit Acc -Type- -UCW-
0001 CPC001 0 HBOC C2 210 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0002 CPC001 0 IBBR C2 210 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0003 CPC001 0 IBBW C2 210 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0004 CPC001 3 SGGP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0005 CPC001 3 S1WP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0006 CPC001 3 F1CB C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0007 CPC001 3 B2SP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0008 CPC001 3 K1CP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0009 CPC001 3 S4RP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0010 CPC001 3 S9GP C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0011 CPC001 3 CMC1 C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0012 CPC001 3 S8GT C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0013 CPC001 3 TCNA C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001
0014 CPC001 3 IBB7 C2 310 OSD --- 0F20 ALW 001 0 0F2F Alw OSAD 00001

```

6.2.4 IOCP LPAR - Unique Element Worksheets

The IOCP LPAR Worksheet is supported by three Unique Element Worksheets; one each for CHPID, Control Unit and I/O Device Configuration. These Worksheets are modeled off of their matching Shared Element Worksheets.

6.2.4.1 IOCP LPAR – Unique CHPID Configurations

See Shared CHPID Configuration Worksheet.

6.2.4.2 IOCP LPAR – Unique Control Unit Configurations

See Shared Control Unit Configuration Worksheet.

6.2.4.3 IOCP LPAR - Unique I/O Device Configurations

See Shared I/O Device Configuration Worksheet.

6.3 The OSCP LPAR Interface

The OSCP LPAR Interface presents a table of Logical Partitions separated into Logical Channel Subset (LCSS) columns by assigned LPAR Name accompanied with the associated Device Path Unit Control Work (UCW) totals as defined and accessible to the LPAR from within the targeted Processor (ProcId).

StepOne

2.0 - zEnterprise Configuration Baseline

-ProcId-- --Unit-- Model --Serial-- -----Processor Descriptive Labeling-----
CPCNORTH____2097 __E56 0CAAA12097 Z10_2097-NORTH

#	LCSS0	LCSS1	LCSS2	LCSS3	
Cm	--Lpar--Ucws--	Cm	--Lpar--Ucws--	Cm	--Lpar--Ucws--
1	.. *	.. *	.. *	.. QWE1	8423
2	.. ABNB 32191	.. *	.. *	.. QWE2	8423
3	.. *	.. *	.. *	.. QWE3	NoUcws
4	.. *	.. *	.. LDRZ 9573	.. PPU1	8423
5	.. *	.. *	.. ADDY 9589	.. PPI2	NoUcws
6	.. CBCB 42901	.. *	.. WDDX 9605	.. PPY3	8423
7	.. *	.. *	.. *	.. OIKJ	8423
8	.. *	.. *	.. *	.. JAAS	8439
9	.. *	.. *	.. *	.. NTHS	8439
A	.. *	.. *	.. LMKR 516	.. STHS	8423
B	.. *	.. *	.. JHDF 516	.. *	
C	.. *	.. *	.. OOKK 9589	.. *	
D	.. *	.. *	.. *	.. *	
E	.. *	.. *	.. *	.. *	
F	.. *	.. *	.. *	.. *	

6.3.1 Display the Full LPAR IOCP/UCW Worksheet

To display an LPARs IOCP Configuration Pathing in a Worksheet Listing cursor under the LPAR Name and press enter. Use PFK1 for Help, PFK3 to return.

StepOne 2.0 - zEnterprise Configuration Bas Row 1 to 14 of 536

```

-----Full Path-----
----- Configuration Worksheet - 47003 UCWs - LPAR:HBOC LCSS:3 CPC:CD1CPL1 -----
Row Selection: Show Controller or Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -----Controllers----- -----IODevices-----

```

S	Numb	-ProcId-	L	--Lpar--	Ctlu	--Type--	Shr	Class	S	Unit	-Type-	Shr	Ucw	-Ucws-
-	0001	CD1CPL1	0	HBOC	2000	2107	Not	LCTLU	0	2000	3390B	Yes	224	000224
-	0002	CD1CPL1	0	HBOC	2000	2107	Not	LCTLU	1	20E0	3390A	Yes	032	000256
-	0003	CD1CPL1	0	HBOC	2300	2107	Not	LCTLU	0	2300	3390B	Yes	224	000480
-	0004	CD1CPL1	0	HBOC	2300	2107	Not	LCTLU	1	23E0	3390A	Yes	032	000512
-	0005	CD1CPL1	0	HBOC	2600	2107	Not	LCTLU	0	2600	3390B	Yes	192	000704
-	0006	CD1CPL1	0	HBOC	2600	2107	Not	LCTLU	1	26E0	3390A	Yes	032	000736
-	0007	CD1CPL1	0	HBOC	2900	2107	Not	LCTLU	0	2900	3390B	Yes	224	000960
-	0008	CD1CPL1	0	HBOC	2900	2107	Not	LCTLU	1	29E0	3390A	Yes	032	000992
-	0009	CD1CPL1	0	HBOC	2E00	2107	Not	LCTLU	0	2E00	3390B	Yes	224	001216
-	0010	CD1CPL1	0	HBOC	2E00	2107	Not	LCTLU	1	2EE0	3390A	Yes	032	001248
-	0011	CD1CPL1	0	HBOC	4000	2107	Not	LCTLU	0	4000	3390B	Yes	224	001472
-	0012	CD1CPL1	0	HBOC	4000	2107	Not	LCTLU	1	40E0	3390A	Yes	032	001504

6.3.1.1 Control Unit Shared Usage Worksheet

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 24
-----Full Path-----
----- Shared Usage of CntUnit 2300 by LPARs in CPC:CDClCPL1 -----
Row Selection: Show the Shared CntUnit Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- --Selected Control Units-- -Devices-
0003 CDClCPL1 0 RTTB
S Line -ProcId- L --Lpar-- Id Pid Type Rec Nmb CtlU -Type- Shr Ua,Nmb Nmb -Ucw-
- 0001 CPC001 0 RTTB 00 1B0 FC --- 002 2300 2107 Not 00,256 002 00256
- 0002 01 440
- 0003 02 660
- 0004 03 260
- 0005 04 450
- 0006 05 6A0
- 0007 06 250
- 0008 07 3B0
- 0009 CPC001 0 RXXB 00 1B0 FC --- 002 2300 2107 Not 00,256 002 00256
- 0010 01 440
- 0011 02 660
- 0012 03 260
- 0013 04 450
- 0014 05 6A0

```

6.3.1.2 I/O Device Shared Usage Worksheet

```

StepOne 2.0 - zEnterprise Configuration Baseline Row 1 to 14 of 48
-----Full Path-----
----- Shared Usage of Device 23E0 by LPARs in CPC:CPC001 -----
Row Selection: Show the Shared Device Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -----Partition----- -Channel Paths- CtlUnits -----Selected Device-----
0004 CPC001 0 RTTB 2300 1 23E0 3390A 00032
S Line -ProcId- L --Lpar-- Id Pid Type Rec CtlU Acc Nmb S Unit Acc -Type- -UCW-
- 0001 CPC001 0 RTTB 00 1B0 FC --- 2300 ALW 001 1 23E0 Alw 3390A 00032
- 0002 01 440 002
- 0003 02 660 003
- 0004 03 260 004
- 0005 04 450 005
- 0006 05 6A0 006
- 0007 06 250 007
- 0008 07 3B0 008
- 0009 CPC001 0 RXXB 00 1B0 FC --- 2300 ALW 001 1 23E0 Alw 3390A 00032
- 0010 01 440 002
- 0011 02 660 003
- 0012 03 260 004
- 0013 04 450 005
- 0014 05 6A0 006

```

6.3.2 Displaying the OSCP Configuration Worksheet

To display a listing of possible OSCP Configurations that might be matched with a selected IOCP LPAR place an 'O' on the command line before the LPAR name and press enter. Use PFK3 to return.

```

StepOne 2.0 - zEnterprise Configuration Base Row 1 to 14 of 45
--Active Device--
----- Selected LPAR:RCNB - 45 OS Control Programs Discovered -----
Row Selection: Select OSCP Baseline List LOADxx Members View OSCP Source Deck
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -Configurations- Load ED -Active Device- -----OS Control Program-----

S Numb --Name-- Id Type xx # Id Nip Numb -Ucbs- -----Descriptive Text-----
- 0001 ADEV 00 MVS RB 2 86 --- 0663 048810 SBPLEX
- 0002 BDEV 00 MVS -- - 87 --- 0561 048094 SBPLEX
- 0003 CXYZ 00 MVS -- - 68 --- 0668 048844 SBPLEX
- 0004 CDEV 00 MVS -- - 88 --- 0639 048772 SBPLEX
- 0005 CVC 00 MVS -- - 00 006 0096 003456 CHASE HOME FINANCE
- 0006 CMCY 00 MVS -- - 00 --- 0166 002055 CMCY PROD AT CDC1
- 0007 DXYZ 00 MVS -- - 65 --- 0661 048818 SBPLEX
- 0008 DDEV 00 MVS -- - 89 --- 0549 047998 SBPLEX
- 0009 EXYZ 00 MVS -- - 66 --- 0663 049388 SBPLEX
- 0010 XYZD 00 MVS -- - 00 --- 0148 008895 CARD SERVICES XYZA DEVELOPMENT
- 0011 XYZP 00 MVS -- - 00 --- 0145 008902 CARD SERVICES XYZA PRODUCTION
- 0012 XYZT 00 MVS -- - 00 --- 0147 008878 CARD SERVICES XYZA TEST
- 0013 AXOC 00 MVS -- - 66 --- 0650 048720 SBPLEX
- 0014 IBBE 00 MVS -- - 66 --- 0642 048656 INTRA SITE BACKUP LPAR EXYZ

```

6.4 Matching IOCP and OSCP Configurations

6.4.1 IOCP to OSCP Eligible Device Table Matching Worksheet

StepOne 2.0 - zEnterprise Configuration Row 1 to 14 of 37,898
--EDT/EDT Match--

----- Configuration Worksheet - UCW to UCB Unit Address Matching -----
Row Selection: Show All Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Total ----CPC-CPC001 -UCWs-47003---- Unit -----OS-CXYZ-UCBs-048844-----

S	Lines	-LCSS:0-	S	UCWs	Rng	Cnt	Class	C	Mtch	UCBs	Rng	Cnt	-Type-	O	D	N	UnitName
-	00083	XYVV	*	---	---	---	----	*	ETAB	01B0	4	1	3480	Y	Y	-	LRPCCART
-	00103	XYVV	*	---	---	---	----	*	ETAB	0200	4	1	3490	Y	Y	-	CDROM
-	00108	XYVV	*	---	---	---	----	*	ETAB	0300	4	1	3490	N	Y	-	CDROM0
-	00160	XYVV	*	---	---	---	----	*	ETAB	0500	16	1	3420	Y	Y	-	9TR
-	00176	XYVV	*	---	---	---	----	*	ETAB	0510	16	1	3490	Y	Y	-	36TRK
-	00192	XYVV	*	---	---	---	----	*	ETAB	0520	16	1	3480	Y	Y	-	EXTTAPE
-	00208	XYVV	*	---	---	---	----	*	ETAB	0530	16	1	3490	Y	Y	-	36TRK
-	00224	XYVV	*	---	---	---	----	*	ETAB	0540	4	1	3590	Y	Y	-	TAPE3590
-	00244	XYVV	*	---	---	---	----	*	ETAB	0800	4	1	3490	N	Y	-	CDROM
-	00248	XYVV	*	---	---	---	----	*	ETAB	0900	4	1	3490	Y	Y	-	CDROM
-	00258	XYVV	*	---	---	---	----	*	ETAB	0B10	1	1	3490	N	Y	-	CDROM10
-	00259	XYVV	*	---	---	---	----	*	ETAB	0B11	1	1	3490	N	Y	-	CDROM11
-	00260	XYVV	*	---	---	---	----	*	ETAB	0B12	1	1	3490	N	Y	-	CDROM12
-	00261	XYVV	*	---	---	---	----	*	ETAB	0B13	1	1	3490	N	Y	-	CDROM13

6.4.2 IOCP to OSCP NIP Console Matching Worksheet

StepOne 2.0 - zEnterprise Configuration Row 1 to 6 of 6
--NIP/NIP Match--

----- Configuration Worksheet - UCW to UCB Unit Address Matching -----
Row Selection: Show All Device Shared Usage
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Total ----CPC-CPC001 -UCWs-47003---- Unit -----OS-CVC-UCBs-003456-----

S	Lines	-LCSS:0-	S	UCWs	Rng	Cnt	Class	C	Mtch	UCBs	Rng	Cnt	-Type-	O	D	N	-ConfId-
-	01088	XYVV	0	1E00	120	1	TERML	-	NIPS	1E00	120	1	3270	N	Y	Y	CVC
-	01200	XYVV	0	1E70	120	113	TERML	-	NIPS	1E70	120	113	3270	N	Y	Y	CVC
-	01208	XYVV	0	1E80	120	1	TERML	-	NIPS	1E80	120	1	3270	N	Y	Y	CVC
-	01328	XYVV	0	1F00	120	1	TERML	-	NIPS	1F00	120	1	3270	N	Y	Y	CVC
-	01448	XYVV	0	1F80	120	1	TERML	-	NIPS	1F80	120	1	3270	N	Y	Y	CVC
-	01544	XYVV	0	1FE0	120	97	TERML	-	NIPS	1FE0	120	97	3270	N	Y	Y	CVC

***** Bottom of data *****

6.4.3 IOCP to OSCP Device Matching Worksheet

StepOne 2.0 - zEnterprise Configuration Row 1 to 14 of 166

--IOD/IOD Match--

----- Configuration Worksheet - UCW to UCB Unit Address Matching -----

Row Selection: Show All Device Shared Usage

--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---

- Total ----CPC-CPC001---UCWs-47003---- Unit -----OS-CMCY-UCBs-002055-----

S	Lines	-LCSS:0-	S	UCWs	Rng	Cnt	Class	C	Mtch	UCBs	Rng	Cnt	-Type-	O	D	N	-ConfId-
-	00001	XYVV	*	---	--	--	----	*	OSCP	095A	1	1	3745	N	Y	-	CXCY
-	00002	XYVV	*	---	--	--	----	*	OSCP	095B	1	1	3745	N	Y	-	CXCY
-	00003	XYVV	*	---	--	--	----	*	OSCP	095C	1	1	3745	N	Y	-	CXCY
-	00004	XYVV	*	---	--	--	----	*	OSCP	095D	1	1	3745	N	Y	-	CXCY
-	00005	XYVV	0	0F00	15	1	ADPTR	-	BOTH	0F00	15	1	OSA	N	Y	-	CXCY
-	00020	XYVV	0	0F0F	1	1	ADPTR	-	BOTH	0F0F	1	1	OSAD	N	Y	-	CXCY
-	00021	XYVV	*	---	--	--	----	*	OSCP	0F10	15	1	OSA	N	Y	-	CXCY
-	00036	XYVV	*	---	--	--	----	*	OSCP	0F1F	1	1	OSAD	N	Y	-	CXCY
-	00037	XYVV	0	0F20	15	1	ADPTR	-	BOTH	0F20	15	1	OSA	N	Y	-	CXCY
-	00052	XYVV	0	0F2F	1	1	ADPTR	-	BOTH	0F2F	1	1	OSAD	N	Y	-	CXCY
-	00053	XYVV	0	0F30	15	1	ADPTR	-	BOTH	0F30	15	1	OSA	N	Y	-	CXCY
-	00068	XYVV	0	0F3F	1	1	ADPTR	-	BOTH	0F3F	1	1	OSAD	N	Y	-	CXCY
-	00069	XYVV	*	---	--	--	----	*	OSCP	0F40	15	1	OSA	N	Y	-	CXCY
-	00084	XYVV	*	---	--	--	----	*	OSCP	0F4F	1	1	OSAD	N	Y	-	CXCY

6.4.4 UCW to UCB Matching Worksheet

StepOne

2.0 - zEnterprise Configuration Row 435 to 448 of 49,670

--UCB/UCW Match--

----- Configuration Worksheet - UCW to UCB Unit Address Matching -----

Row Selection: Show All Device Shared Usage

--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---

- Total ----CPC-CPC001---UCWs-47003---- Unit -----OS-ADEV-UCBs-048810-----

S	Lines	-LCSS:0-	S	UCWs	Rng	Cnt	Class	C	Mtch	UCBs	Rng	Cnt	-Type-	O	D	N	-ConfId-
-	00435	XYVV		0F85		6			BOTH	0F85		6					CXCY
-	00436	XYVV		0F86		7			BOTH	0F86		7					CXCY
-	00437	XYVV		0F87		8			BOTH	0F87		8					CXCY
-	00438	XYVV		0F88		9			BOTH	0F88		9					CXCY
-	00439	XYVV		0F89		10			BOTH	0F89		10					CXCY
-	00440	XYVV		0F8A		11			BOTH	0F8A		11					CXCY
-	00441	XYVV		0F8B		12			BOTH	0F8B		12					CXCY
-	00442	XYVV		0F8C		13			BOTH	0F8C		13					CXCY
-	00443	XYVV		0F8D		14			BOTH	0F8D		14					CXCY
-	00444	XYVV		0F8E		15			BOTH	0F8E		15					CXCY
-	00445	XYVV	0	0F8F	1	1	ADPTR	-	BOTH	0F8F	1	1	OSAD	N	Y	-	CXCY
-	00446	XYVV	*	---	--	--	----	*	OSCP	0F90	15	1	OSA	N	Y	-	CXCY
-	00447	XYVV	*	---	--	--	----	*	OSCP	0F91		2					CXCY
-	00448	XYVV	*	---	--	--	----	*	OSCP	0F92		3					CXCY
-	00449	XYVV		188C		13			IOCP	---	---	---	----	*	*	*	CXCY

6.4.5 Displaying the LOADxx Analytic Worksheet

```

StepOne 2.0 - zEnterprise Configuration Row 26 to 39 of 39
--Loadxx Member--
----- Selected LPAR:HBOC - LOADxx Worksheet - 39 Members Discovered -----
Row Selection: View Loadxx Content Show ParmLib Content Filter Loadxx ParmLib
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -IPL- ---IODF Keywords Values--- -Load- -----Load Member Location-----

S Numb State --Name- Sx --Dhlq-- Et D S Member Volume -----Dataset-----
- 0026 NoUse DEV 00 SYS1 00 Y - LOADAZ VPWRKH PROBI1.SYS1.IPLPARM
- 0027 NoUse IBERTAL 00 SYS1 00 Y - LOADBB VPWRKH PROBI1.SYS1.IPLPARM
- 0028 NoUse SDMALT 00 SYS1 00 Y - LOADCC VPWRKH PROBI1.SYS1.IPLPARM
- 0029 NoUse HCS 00 SYS1 00 Y - LOADCK VPWRKH PROBI1.SYS1.IPLPARM
- 0030 NoUse JES25 00 SYS1 00 Y - LOADCM VPWRKH PROBI1.SYS1.IPLPARM
- 0031 NoUse JES24 00 SYS1 00 Y - LOADCT VPWRKH PROBI1.SYS1.IPLPARM
- 0032 NoUse JES24 00 SYS1 00 Y - LOADDD VPWRKH PROBI1.SYS1.IPLPARM
- 0033 NoUse WOTSTAL 00 SYS1 00 N - LOADEE VPWRKH PROBI1.SYS1.IPLPARM
- 0034 NoUse HIS7 00 SYS1 00 Y - LOADFS VPWRKH PROBI1.SYS1.IPLPARM
- 0035 NoUse HTSZVO 00 SYS1 00 Y - LOADF2 VPWRKH PROBI1.SYS1.IPLPARM
- 0036 NoUse HTSYVH 00 SYS1 00 Y - LOADF3 VPWRKH PROBI1.SYS1.IPLPARM
- 0037 NoUse MVS 00 SYS1 00 Y - LOADJ3 VPWRKH PROBI1.SYS1.IPLPARM
- 0038 InUse ADEV 01 SYS1 00 Y - LOADRB VPWRKH PROBI1.SYS1.IPLPARM
- 0039 InUse MVSBO 99 SYS1 00 Y - LOAD01 VPWRKH PROBI1.SYS1.IPLPARM

```

6.4.6 Displaying the LOADxx Filter Worksheet

StepOne 2.0 - zEnterprise Configuration Baseline								
Cm Member	-----IPL Parm Dataset-----			Volume				
.. LOADJ3	SYS1.IPLPARM			VPMVSB				
-----LOADxx Filters-----			-----Filtered Values-- IPLCheck					
Cm -HWNAME-	Cm LPARNAME	Cm VMUSERID		Cm Parmlib Datasets-----				
-----			----- Dsn Concatenation					
/.	CDC1CPL1	/.	HBOC	/.	(BLANKS)		..	VENDOR.PARMLIB
==	=====	==	=====		..	SVTSC.PARMLIB		
..	..	..	..		..	LVL0.PARMLIB		
..	..	..	..		..	SYS1.PARMLIB		
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		..			
..	..	..	..		Cm IEASYM Suffix---	System Symbol Lst		
..	..	..	..		..	(W1,J3,SV,VN)		
..	..	..	..		Cm IEASYS Suffix---	Directors & Parms		
..	..	..	..		..	(00,LV,SV,VN)		

6.4.7 Displaying the PARMLIB Analytic Worksheet

StepOne 2.0 - zEnterprise Configuration Row 1 to 14 of 384									
-----Parmlib Members-----									
----- Configuration Worksheet - 384 All Parmlib Members -----									
Row Selection: View Member Content									
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---									
- Line ----Members----- --Last Update-- -----Parmlib Datasets-----									
S	Numb	-Prefix-	Sf	Num	--User--	--Date--	Cat	-----Dataset Names-----	Volume
0001	ALLJ2	--	UNK	IBMUSER	15/01/12	001	VENDOR.PARMLIB	VPMVSD	
0002	ALLJ3	--	UNK	TODD	15/08/07	001	VENDOR.PARMLIB	VPMVSD	
0003	ALLOC	CG	ZOS	CGOLL1	15/07/22	001	VENDOR.PARMLIB	VPMVSD	
0004	AXR	00	ZOS	IBMUSER	15/09/14	001	VENDOR.PARMLIB	VPMVSD	
0005	AXR	91	ZOS	IBMUSER	15/09/07	001	VENDOR.PARMLIB	VPMVSD	
0006	BPXPRM	VN	ZOS	IBMUSER	15/08/16	001	VENDOR.PARMLIB	VPMVSD	
0007	COFVLF	SV	ZOS	IBMUSER	14/11/25	001	VENDOR.PARMLIB	VPMVSD	
0008	COMMND	\$\$	ZOS	PHARL2	15/05/18	001	VENDOR.PARMLIB	VPMVSD	
0009	COMMND	BM	ZOS	RMANC1	15/04/06	001	VENDOR.PARMLIB	VPMVSD	
0010	COMMND	CC	ZOS	CCHIN2	15/08/25	001	VENDOR.PARMLIB	VPMVSD	
0011	COMMND	CG	ZOS	CGOLL1	15/07/11	001	VENDOR.PARMLIB	VPMVSD	
0012	COMMND	CY	ZOS	CCHIN1	15/03/30	001	VENDOR.PARMLIB	VPMVSD	
0013	COMMND	C1	ZOS	CGOLL1	15/08/02	001	VENDOR.PARMLIB	VPMVSD	
0014	COMMND	EE	ZOS	PHARL3	04/12/11	001	VENDOR.PARMLIB	VPMVSD	

6.5 Common Worksheet Operations

The StepOne Worksheets allow you to analyze your IODF data in several ways. You can sort (ascending or descending order), filter (specify a specific value), and query (specify a value for a specific data column) using the operators described below.

6.5.1 Sorting the Worksheet

You can sort the data in ascending or descending order. Using this panel as an example, look at the data in the “Numb” column. Each line entry has a number associated with it. Initially, the numbers are sorted in ascending order.

- Place your cursor on the “Numb” column heading and press <ENTER>. Notice that the line items are now sorted in descending order.
- Placing your cursor on the “Numb” column heading and pressing <ENTER> again will return the column to ascending order.
- Now try sorting the “Unit” and “Type” fields.

6.5.2 Filtering a Worksheet

You can filter the data by selecting a specific value from the data column. Using this panel as an example, look at the data in the “Type” column. Initially, the entries are not sorted.

- Place your cursor on the first data line with a “Type” of “3390A”, and press <ENTER>. Notice that only the line items for Type=3390A are shown.
- Placing your cursor on the “3390A” you selected and pressing <ENTER> twice will clear the filter (e.g. display the worksheet in its original format).

6.5.3 Worksheet Column Query

You can column query the data by specifying a value for a specific data column. Using this panel as an example, look at the data in the “Type” column. Initially, the entries are not sorted.

- Place your cursor on the field above the “Type” column heading, type “3390A”, and press <ENTER>. Notice that only the line items for Type=3390A are shown.
- Place your cursor on the “Numb” column heading and press <ENTER> to clear the column query (e.g. display the worksheet in its original format).

6.6 IODF Configuration Reports

The Configuration Report Set provided by **StepOne** is progressive, meaning the data presented becomes more and more detailed as successive options are selected. The table below shows the Report Content at each level of reporting.

Report Level	Report Content					
LCSS	LCSS					
LPAR	LCSS	LPAR				
PATH	LCSS	LPAR	PATH			
CTLU	LCSS	LPAR	PATH	CTLU		
UNIT	LCSS	LPAR	PATH	CTLU	UNIT	
UCWS	LCSS	LPAR	PATH	CTLU	UNIT	UCWS

As shown in the sample reports the number of records increase from as little 28 when the LCSS option is selected to over 34,000 when the UNIT and/or UCWS option is selected for a single Central Processing Complex (CPC).

6.6.1 Building Configuration Reports

To display a Configuration Report select one or more Proclds and a corresponding Report Level using a forward slash '/' and press enter.

```

StepOne 2.0 - zEnterprise Configuration Baseline

IODFData: PROBI1.IODF87 Volume: VPWRKH Date: 2019-09-25 16:16:27

.. -ProcId--Lp --Unit-- Model --Serial-- -----Descriptive Labeling-- Swap --
.. CPC001__6__ 2097__ E26 02XXX22097 COUPLING_FACILITY_1
.. CPC002__6__ 2097__ E26 02YYY22097 COUPLING_FACILITY_2
.. CPC003__16__ 2097__ E56 01ZZZ02097 Z10_2097_003
./ CPCNORTH_18__ 2097__ E56 0CAA12097 Z10_2097-NORTH
.. CPCSOUTH_13__ 2097__ E56 0CBBB12097 Z10_2097-SOUTH
.. CFNTH__4__ 2097__ E26 00CCC02097 COUPLING_NORTH
.. CPSEA__8__ 2097__ E56 0111112097 Z10_2097_SEASIDE
.. CPUXX__14__ 2097__ E56 0322222097 PROD_PROCESSOR_CPUXX
.. CPUYY__22__ 2097__ E56 0333022097 PROD_PROCESSOR_CPUYY
.. CPUZZ__7__ 2097__ E56 0344E22097 PROD_PROCESSOR_CPUZZ
.. CPUZZA__15__ 2097__ E56 0355522097 PROD_PROCESSOR_CPUZZA
..
..
..
-----Reporting Levels and Options----- .. Reset --
.. Store NO .. LCSS .. LPAR ./ PATH .. CTLU .. UNIT .. UCWS .. Print NO

```

6.6.2 Common Reporting Options

6.6.2.1 Store

Use this option to display the TSO/ISPF Move/Copy Utility and store a selected Configuration Report using a dataset name of your choosing.

6.6.2.2 Print

Use this option to display the TSO/ISPF Hardcopy Utility and route a selected Configuration Report to a printer of your choosing.

6.6.2.3 Reset

Use this option to reset all Configuration Report options and selection to their default states.

6.6.3 Configuration Report Samples

6.6.3.1 Configuration Report Header and Footer

Report header values include:

- User defined header lines (up to 10 in sample only one is used - StepOne)
- Source IODF Dataset
- Report Date and Time Stamp
- Processor Identifier (ProcId)
- Report Level

Report footer values include:

- Fully qualified report dataset name
- NewEra Saluation

```

/*****
/*
/*                               StepOne                               */
/*                               */
/*      Source IODFDsn:PROBI1.IODF87 Time Stamp:2019-09-25 16:16:27      */
/*      Report Date:2019/09/25 Report Time:11:49:47                      */
/*                               */
/*      Processor Configuration Report - PROCID:CDClCPUA LEVEL:LCSS       */
/*                               */
/*****
|
/*****
/*                               */
/*      RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS                        */
/*                               */
/*****
NewEra Software, Inc.
Our Job? Help you avoid problems and improve z/OS integrity.
***** Bottom of Data *****

```

6.6.3.2 LCSS Configuration Report

Incremental Processor ID and LCSS values add to report include:

- Processor identifier (ProcId)
- Processor Description
- Processor Unit designator
- Processor Model designator
- Processor Local System Name (LSYSTEM)
- Processor Serial Number
- For each Logical Channel Subsystem (LCSS) its description

```

/*****
/*
/*                               StepOne
/*
/*      Source IODFdsn:PROB11.IODF87 Time Stamp:2019-09-25 16:16:27
/*      Report Date:2019/09/25 Report Time:11:49:47
/*
/*      Processor Configuration Report - PROCID:CDClCPUA LEVEL:LCSS
/*
/*****
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10_2097-E56/705_Serial#:
ICE0000I | UNIT:2097 MODEL:E56 LSYSTEM:CPC0001 SERIAL:0XCVB12097
ICE0000I |      LCSS:0 DESC:---
ICE0000I |      LCSS:1 DESC:---
ICE0000I |      LCSS:2 DESC:---
ICE0000I |      LCSS:3 DESC:---
ICE0000I +-----+
/*****
/*
/*      RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS
/*
/*****
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***** Bottom of Data *****

```

6.6.3.3 LPAR Configuration Report

Incremental LPAR values added to report include:

- Logical Partition (LPAR) Number (HEX 1-F)
- Logical Partition (LPAR) Name
- Logical Partition (LPAR) Type (OS or CF)
- Logical Partition (LPAR) Description

Note that LPAR:0 should be interpreted as meaning no LPARS are defined to the related Logical Channel Subsystem (LCSS).

```

/*****
/*
/*                               StepOne                               */
/*
/*      Source IODFdsn:PROBI1.IODF87 Time Stamp:2019-09-25 16:16:27      */
/*      Report Date:2019/09/25 Report Time:11:49:47                      */
/*
/*      Processor Configuration Report - PROCID:CPC0001 LEVEL:LPAR        */
/*
/*****
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10_2097-E56/705_Serial#:                      |
ICE0000I | UNIT:2097 MODEL:E56 LSYSTEM:CPC0001 SERIAL:0XCVB12097        |
ICE0000I |      LCSS:0 DESC:---                                          |
ICE0000I |      LPAR:2 DESC:RCNB OS,GDDR LPAR_RCNB                      |
ICE0000I |      LPAR:6 DESC:XYZ OS,SBPLEX_LPAR_XYZ_TEST                |
ICE0000I |      LCSS:1 DESC:---                                          |
ICE0000I |      LPAR:0 DESC:NONE NO_LPARS_DEFINED                      |
ICE0000I |      LCSS:2 DESC:---                                          |
ICE0000I |      LPAR:4 DESC:L3DR OS,L3DR                                |
ICE0000I |      LPAR:5 DESC:A2DR OS,A2DR                                |
ICE0000I |      LPAR:6 DESC:W2DR OS,W2DR                                |
ICE0000I |      LPAR:A DESC:M3DR OS,M3DR                                |
ICE0000I |      LPAR:B DESC:H1DR OS,H1DR                                |
ICE0000I |      LPAR:C DESC:W1DR OS,W1DR                                |
ICE0000I |      LCSS:3 DESC:---                                          |
ICE0000I |      LPAR:1 DESC:S7GP OS,FUNDS_High_Impact_Lpar             |
ICE0000I |      LPAR:2 DESC:S2WT OS,Wholesale_Low_Impact               |
ICE0000I |      LPAR:3 DESC:CFR2 CF,Retail_Alt_CF_Lpar                 |
ICE0000I |      LPAR:4 DESC:B1ST OS,MRSC_Low_Impact_Lpar               |
ICE0000I |      LPAR:5 DESC:CFG1 CF,FUNDS_Primary_CF_Lpar              |
ICE0000I |      LPAR:6 DESC:TCNB OS,GDDR_Control_Lpar                  |
ICE0000I |      LPAR:A DESC:IBB9 OS,S9_Internal_Recovery_Lpar          |
ICE0000I +-----+
/*****
/*
/*      RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS                        */
/*
/*****
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***** Bottom of Data *****

```

6.6.3.4 PATH Configuration Report

Incremental PATH values added to report include:

- Logical Channel Path Identifier
- Physical Channel Path Identifier
- Channel Path Type
- Sharing Indicator
- Reconfigurable Indicator
- Channel Path Description

```

/*****
/*
/*                               StepOne                               */
/*
/*                               Source IODFDsn:PROBI1.IODF87 Time Stamp:2019-09-25 16:16:27
/*                               Report Date:2019/09/25 Report Time:11:49:47
/*
/*                               Processor Configuration Report - PROCID:CPC0001 LEVEL:PATH
/*
/*****
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10 2097-E56/705 Serial#:
ICE0000I | UNIT:2097 MODEL:E56 LSYSTEM:CPC0001 SERIAL:0XCVB12097
ICE0000I |      LCSS:0 DESC:---
ICE0000I |      LPAR:2 DESC:RCNB OS,GDDR_LPAR_RCNB
ICE0000I |      PATH:00,5F0,FC ,S/- DESC:NONE_PROVIDED
ICE0000I |      PATH:01,260,FC ,S/- DESC:NONE_PROVIDED
ICE0000I |      LPAR:6 DESC:XXYZ OS,SBPLEX_LPAR_XXYZ_TEST
ICE0000I |      PATH:00,5F0,FC ,S/- DESC:NONE_PROVIDED
ICE0000I |      PATH:04,440,FC ,S/- DESC:NONE_PROVIDED
ICE0000I |      PATH:05,450,FC ,S/- DESC:NONE_PROVIDED
ICE0000I |      PATH:FF,---,IQD,S/- DESC:HYPERSOCKETS
ICE0000I |      LCSS:1 DESC:---
ICE0000I |      LPAR:0 DESC:NONE NO_LPARS_DEFINED
ICE0000I |      LCSS:2 DESC:---
ICE0000I |      LPAR:4 DESC:L3DR OS,L3DR
ICE0000I |      PATH:00,5C1,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:01,5F3,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:02,142,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:03,1B3,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:E5,---,CIB,-/- DESC:L3DR_TO_CF1B_CFLA1
ICE0000I |      LPAR:5 DESC:A2DR OS,A2DR
ICE0000I |      PATH:00,5C1,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:01,5F3,FC ,S/- DESC:DMX3_2500#1_s/n_0330
ICE0000I |      PATH:02,142,FC ,S/- DESC:DMX3_2500#1_s/n_0330
...

/*****
/*
/*                               RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS
/*
/*
/*****
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***** Bottom of Data *****

```


6.6.3.5 CTLU Configuration Report

Incremental CTLU values added to report include:

- Control Unit Device Address
- CSHR when the Control Unit is openly shared with other LPARs
- CPRT when the Control Unit is restrictively shared with other LPARs
- CNOP when the Control Unit is prohibited from serving the named LPAR

```

/*****
/*
/*                               StepOne
/*
/*      Source IODFsn:PROBI1.IODF87 Time Stamp:2019-09-25 16:16:27
/*      Report Date:2019/09/25 Report Time:11:49:47
/*
/*      Processor Configuration Report - PROCID:CPC0001 LEVEL:CTLU
/*
/*****
|
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10_2097-E56/705_Serial#:
ICE0000I | UNIT:2097 MODEL:E56 LSYSTEM:CPC0001 SERIAL:0XCVB12097
ICE0000I | LCSS:0 DESC:---
ICE0000I | LPAR:2 DESC:RCNB OS,GDDR LPAR_RCNB
ICE0000I | PATH:00,5F0,FC ,S/- DESC:NONE_PROVIDED
ICE0000I | CTLU:2000,CSHR
ICE0000I | CTLU:2300,CSHR
ICE0000I | CTLU:2600,CSHR
ICE0000I | CTLU:2900,CSHR
ICE0000I | CTLU:2E00,CSHR
ICE0000I | CTLU:4000,CSHR
ICE0000I | CTLU:4300,CSHR
ICE0000I | CTLU:4600,CSHR
ICE0000I | CTLU:4900,CSHR
ICE0000I | PATH:01,260,FC ,S/- DESC:NONE_PROVIDED
ICE0000I | CTLU:2000,CSHR
ICE0000I | CTLU:2300,CSHR
ICE0000I | CTLU:2600,CSHR
ICE0000I | CTLU:2900,CSHR
ICE0000I | CTLU:2E00,CSHR
ICE0000I | CTLU:C300,CPRT
ICE0000I | PATH:4D,1E3,FC ,S/- DESC:VTS
ICE0000I | PATH:5A,1A3,FC ,S/- DESC:FCTC_Primary
ICE0000I | CTLU:7650,CSHR
ICE0000I | CTLU:7A00,CSHR
ICE0000I | CTLU:7A10,CNOP
ICE0000I | CTLU:7A20,CNOP
...
/*****
/*
/*      RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS
/*
/*****
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***** Bottom of Data *****

```

6.6.3.6 UNIT Configuration Report

Incremental CTLU values added to report include:

- I/O Device Unit Address (Often referred to as the Head-of-String)
- DSHR when the Control Unit is openly shared with other LPARs
- DPRT when the Control Unit is restrictively shared with other LPARs
- DNOP when the Control Unit is prohibited from serving the named LPAR

```

/*****
/*
/*                               StepOne                               */
/*
/*      Source IODFdsn:PROBI1.IODF87 Time Stamp:2019-09-25 16:16:27      */
/*      Report Date:2019/09/25 Report Time:11:49:47                      */
/*
/*      Processor Configuration Report - PROCID:CPC0001 LEVEL:UNIT        */
/*
/*****
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10_2097-E56/705_Serial#:                      |
ICE0000I | UNIT:2097 MODEL:E56_LSYSTEM:CPC0001 SERIAL:0XCVB12097        |
ICE0000I |      LCSS:0 DESC:---                                          |
ICE0000I |      LPAR:2 DESC:RCNB OS,GDDR_LPAR_RCNB                      |
ICE0000I |      PATH:00,5F0,FC ,S/- DESC:NONE_PROVIDED                 |
ICE0000I |      CTLU:2000,CSHR                                          |
ICE0000I |      UNIT:2000,DSHR                                          |
ICE0000I |      UNIT:20E0,DSHR                                          |
ICE0000I |      CTLU:2300,CSHR                                          |
ICE0000I |      UNIT:2300,DSHR                                          |
ICE0000I |      UNIT:23E0,DSHR                                          |
ICE0000I |      PATH:01,260,FC ,S/- DESC:NONE_PROVIDED                 |
ICE0000I |      CTLU:2000,CSHR                                          |
ICE0000I |      UNIT:2000,DSHR                                          |
ICE0000I |      UNIT:20E0,DSHR                                          |
ICE0000I |      CTLU:2300,CSHR                                          |
ICE0000I |      UNIT:2300,DSHR                                          |
ICE0000I |      PATH:5A,5C3,FC ,S/- DESC:FCTC_Primary                  |
ICE0000I |      CTLU:7522,CSHR                                          |
ICE0000I |      UNIT:7520,DNOP                                          |
ICE0000I |      CTLU:784A,CSHR                                          |
ICE0000I |      UNIT:7848,DPRT                                          |
ICE0000I |      CTLU:787A,CSHR                                          |
ICE0000I |      UNIT:7878,DPRT                                          |
...
/*****
/*
/*                               RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS   */
/*
/*
/*****
NewEra Software, Inc.
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***** Bottom of Data *****

```

6.6.3.7 UCWS Configuration Report

Incremental UCWS value added to report include:

- The number of I/O Devices, inclusive of the Head-of-String, that may be configured.

```

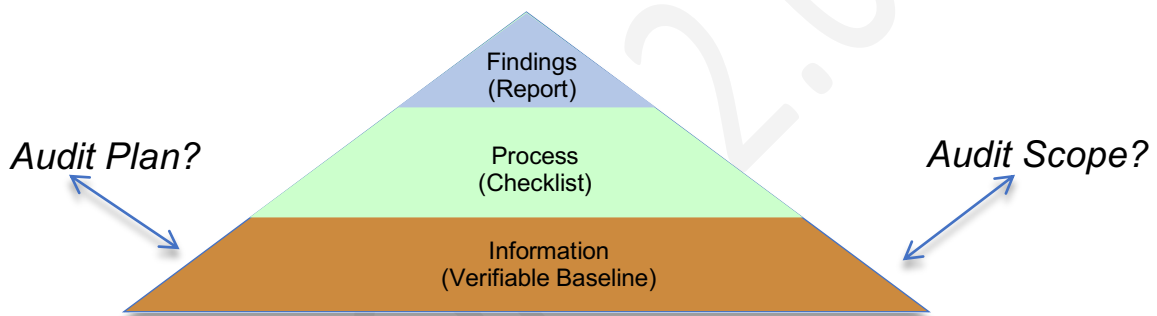
/*****
/*
/*                               StepOne                               */
/*
/*      Source IODFdsn:PROB11.IODF87 Time Stamp:2019-09-235 16:16:27      */
/*      Report Date:2019/09/25 Report Time:11:49:47                      */
/*
/*      Processor Configuration Report - PROCID:CPC0001 LEVEL:UCWS        */
/*
/*****
|
ICE0000I +-----+
ICE0000I | NAME:CPC0001 DESC:z10_2097-E56/705_Serial#:                      |
ICE0000I | UNIT:2097 MODEL:E56 LSYSTEM:CPC0001 SERIAL:0XCVB12097        |
ICE0000I | LCSS:0 DESC:---                                              |
ICE0000I | LPAR:2 DESC:RCNB OS,GDDR_LPAR_RCNB                          |
ICE0000I | PATH:00,5F0,FC ,S/- DESC:NONE_PROVIDED                     |
ICE0000I | CTLU:2000,CSHR                                              |
ICE0000I | UNIT:2000,DSHR UCWS:224                                     |
ICE0000I | UNIT:20E0,DSHR UCWS:32                                     |
ICE0000I | CTLU:2300,CSHR                                              |
ICE0000I | UNIT:2300,DSHR UCWS:224                                     |
ICE0000I | UNIT:23E0,DSHR UCWS:32                                     |
ICE0000I | CTLU:2600,CSHR                                              |
ICE0000I | UNIT:2600,DSHR UCWS:224                                     |
ICE0000I | UNIT:26E0,DSHR UCWS:32                                     |
ICE0000I | CTLU:2900,CSHR                                              |
ICE0000I | UNIT:4000,DSHR UCWS:224                                     |
ICE0000I | UNIT:40E0,DSHR UCWS:32                                     |
ICE0000I | CTLU:9503,CSHR                                              |
ICE0000I | UNIT:95C0,DSHR UCWS:64                                     |
ICE0000I | CTLU:9803,CSHR                                              |
ICE0000I | UNIT:9800,DSHR UCWS:192                                    |
ICE0000I | UNIT:98C0,DSHR UCWS:64                                     |
ICE0000I | CTLU:9B03,CSHR                                              |
ICE0000I | UNIT:9B00,DSHR UCWS:192                                    |
ICE0000I | UNIT:9BC0,DSHR UCWS:64                                     |
ICE0000I | CTLU:9E03,CSHR                                              |
ICE0000I | UNIT:9E00,DSHR UCWS:192                                    |
ICE0000I | UNIT:9EC0,DSHR UCWS:64                                     |
...
/*****
/*
/*      RPTDSN:IFO.IFOP.$STEPONE.$TEMP.$REPORTS                        */
/*
/*****
NewEra Software, Inc.
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***** Bottom of Data *****

```

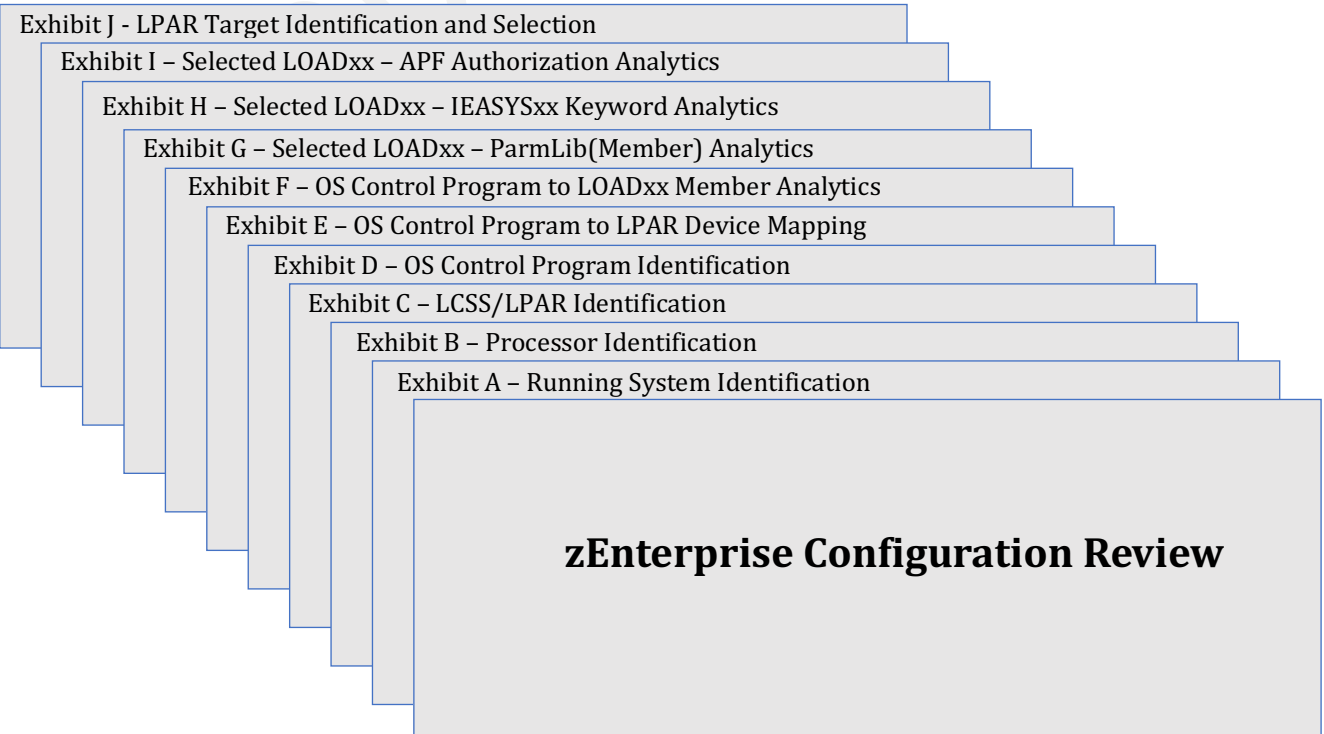
7 Sample zEnterprise Configuration Review

The conventional wisdom of many Audit Plans and Tools ignore what many consider obvious and begin deep in the details of the Operating System (OS) and External Security Manager (ESM). StepOne takes a different approach to zEnterprise auditing, allowing you to quickly and efficiently create a Verifiable Baseline of system configuration components and connections. You should use this Configuration Baseline as an integral part of your Audit Planning process, ultimately scaling the Scope of the Audit to a level that satisfies both your review needs and those of your client.

Only when the Configuration Baseline is fully understood should you proceed with the selection of one or more LPAR Audit Targets. The collection of Exhibits described in this section is designed to make the identification and selection of LPAR Targets meaningful, requiring a minimum of assistance from your assigned System Programmer.



Intended primarily as supporting documentation for prescribed Audit Processes and resulting Audit Findings, StepOne supports the following Exhibit Set. The Information in each Exhibit is automatically extracted and presented in report format. Each Exhibit is described in this section.



7.1 Running System Identification – Exhibit A

Exhibit A Running System Identification		
Description	Value	Comments
SMFid		
System		
Sysplex		
Serial Number		
Operating System		
Last IPLed		
Running IODF		
Defined IODF		
ICE Active		
ESM Active		
Engagement		
Reference		
Client		
Location		
Beginning Date		
Prepared by		

7.2 Processor Identification – Exhibit B

[illegible]

7.3 LCSS/LPAR Identification – Exhibit C

Exhibit C				
LCSS/LPAR Identification				
IODF Dataset _____		Last IODF Update _____		
Procid _____		Serial Number _____		
LPAR	LCSS0	LCSS1	LCSS2	LCSS3
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				
Engagement				
Reference				
Client				
Location				
Beginning Date				
Prepared by				

7.4 OS Control Program Identification – Exhibit D

[illegible]

7.5 OS Control Program to LPAR Device Mapping – Exhibit E

Exhibit E			
OS Control Program to LPAR Device Mapping			
IODF Dataset_____		Last IODF Update_____	
OS ConfigId_____		LPAR Name_____	
I/O Device Unit Address	Device Configured		Description
	To OS	To LPAR	
Engagement			
Reference			
Client			
Location			
Beginning Date			
Prepared by			

7.6 OS Control Program to LOADxx Member Analytics – Exhibit F

[illegible]

7.7 Selected LOADxx - ParmLib DSN(Mbr) Analytics – Exhibit G

Exhibit G					
LOADxx Named ParmLib Dataset(Member) Analytics					
IODF Dataset _____			Last IODF Update _____		
LOADxx Member _____			Source Dataset _____		
ParmLib Elements			z/OS	Last Updated	
Member	Suffix	Source Dataset		USER	Date
Engagement					
Reference					
Client					
Location					
Beginning Date					
Prepared by					

7.8 Selected LOADxx Member - IEASYSxx Analytics – Exhibit H

Exhibit H			
Selected LOADxx Member - IEASYSxx Keyword Analytics			
IODF Dataset_____		Last IODF Update_____	
LOADxx Member_____		Source Dataset_____	
Keyword	Type	Keyword Values	Source IEASYSxx Member
Engagement			
Reference			
Client			
Location			
Beginning Date			
Prepared by			

7.9 Selected LOADxx Member – APF Analytics – Exhibit I

Exhibit I					
Selected LOADxx Member - IEASYSxx Keyword Analytics					
IODF Dataset_____		Last IODF Update_____			
LOADxx Member_____		Source Dataset_____			
APF Candidates		Candidate Validation			
Dataset Name	Volume	Modules	Dataset	Duplicate	Volume
Engagement					
Reference					
Client					
Location					
Beginning Date					
Prepared by					

7.10 LPAR Audit Target Identification and Selection

[illegible]

8 Appendix

8.1 IODF Dataset Best Practices

8.1.1 Establish and Enforce Limits

- Access to HCD/HCM
- NONE/READ/UPDATE Authority to SYS1.IODFxx
- Access to the Hardware Management Console (HCM)
- Access to the System Element (SE)
- Access to the Management Network (URM)
- Access to LOADxx Members – SYSn.IPLPARM
- Access to System Parameters – SYS1.PARMLIB
- Access to NIPS and System Consoles
- Require “Activity Logging” ON

8.1.2 Document and Periodically Review Initialization Process

- Power On Reset (POR)
- Initial z/OS Program Load (IPL)
- Disaster Recovery/Business Continuity

8.2 IODF as the Absolute zEnterprise Baseline

There is no longer a debate about the vital role played by the IODF as the Absolute zEnterprise Baseline. For those who may be new to the zEnterprise platform additional reading and study may be needed. The absolute best reference work is shown below.

8.2.1 z/Enterprise Reference Material

z/Auditing Essentials - Volume 1
zEnterprise Hardware - An Introduction for Auditors
Edited By Julie-Ann Williams - julie@sysprog.co.uk

Co-Authored by:

- Julie-Ann Williams
- Craig Warren
- Martin Underwood
- Steve Tresadern

8.2.2 What an Industry Expert says about z/Audit Essentials

This has been an interesting book for me to review. I have been involved with data security since 1972 when I formed the SHARE Security Project and we developed the security requirements for future IBM Operating Systems. And, when I was not satisfied with the IBM response to those requirements (RACF), I developed ACF2 to prove that the requirements could be accomplished. RACF and Top Secret now also meet those requirements.

But, my whole focus was on data security in an operating environment and I never thought much about the steps before the system was IPL'd and the External Security Manager (ACF2, RACF or Top Secret) was active. This book opened my eyes to the issues involved before the IPL is complete including the LOADxx set of parameters that define where the Operating System Parameters are stored and the layout of the storage devices, how they are mapped – and even added dynamically by activating a new Input/Output Definition File (IODF)! When presenting on security vulnerabilities, I often give examples of system integrity vulnerabilities caused by sharing of storage devices containing production data or libraries between production and development LPARs or systems, but this book brings the whole concept forward, clarifies it and explains how this can be correctly managed.

Although some Auditors may believe this book gives them more information than they needed to know, it certainly should open their eyes to issues that should be looked at for a complete audit. The book provides the big picture of how all the pieces fit together and gives them the basis for asking the right questions – many of which I am sure they did not know.

I really have to give Julie-Ann, Martin, Craig and Steve credit for the details and the explanations that they provide. I am sure it was not easy. Even experienced Systems Programmers would have some difficulty embracing these concepts and Auditors who did not come out of that environment would have a steep learning curve. I cannot wait for Volume 2 which covers the auditing concepts for z/OS in the operating environment.

Barry Schrager – May 2011

8.3 Added Value with ICE Core Integration

8.3.1 z/OS System Inspection

8.3.2 Access to the IBM Health Checker for z/OS

8.3.3 Access to The Control Editor's Control Journals

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