The IPLCheck Family of z/OS Health Checks helps users manage and protect the integrity of their z/OS systems by reporting on system configuration settings that do not conform to accepted best practices and possibly result in a future z/OS IPL failure.

The IPLCheck Family of PFA* Checks

ICE18.0

USER GUIDE

*Predictive z/OS Failure Analysis

Contact us for additional information:

NewEra Software Technical Support

800-421-5035 or 408-520-7100

support@newera.com

www.newera.com

Rev: 2024-5-24

1 Foreword

1.1 Copyright, Trademark and Legal Notices

1.1.1 Copyrights

1.1.2 License Agreement

1.1.3 Trademarks and Copyrights of Others

1.2 General Information

1.2.1 Who Should Read this Document

Those given the responsibility to: install, maintain and use IPLCheck should read this document. It will explain in detail how IPLCheck is installed, configured, maintained and used.

1.2.2 Other Documents and Resources

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

- Image FOCUS Read Me;
- Image FOCUS User Guide;
- Getting Started With Image FOCUS.

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 Reporting Problems

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

- The JOBLOG/JCL/MESSAGE output from the IPLCHECK Address Space.

1.3 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.

1.4 About IPLCheck

The IPLCheck Family is an integrated set of Predictive Failure Analysis (PFA) "Health Checks" that evaluate z/OS configuration settings against 'Industry Best Practices' to pinpoint the causes of potential system initialization failures at the z/OS Logical Partition (LPAR) level.

The analytic processes used by each IPLCheck application are based on NewEra's proven z/OS Inspection Server Technology that supports all releases of z/OS. The Family includes:

- **IPLCheck-Core** is directed to automatically discover the IPL PARMs of each 'Production' z/OS LPAR to which it is assigned. It evaluates running settings for syntax and related system components for structural integrity.

- **IPLCheck-Plus** is directed to 'Alternate' z/OS LPARs via user-managed settings that override IPLCheck-Core discoveries. Alternates include Unit Address, LoadParm, Catalog and development IPLPARM and PARMLIB datasets.

- **IPLCheck-Dynamic** evaluates LPALST, LNKLST, APFLST and SYMLST settings. Mismatches with 'Actual' production or alternate configurations often result in a loss of functionality when an LPAR is re-IPLed.

- **IPLCheck-Subsystems** extends the discovery and standards enforcement found in IPLCheck-Core and IPLCheck-Plus to include the z/OS subsystems JES, VTAM, CICS and various TCP/IP components.

- **IPLCheck-Viewer** analytic findings are reported to the Health Checker Framework where they are immediately distributed, by LPAR, for review and remediation. The Viewer provides a centralized focal point where the state of all LPARs can be reviewed simultaneously.

1.5 Limitations of IPLCheck

The IPLCheck Family of applications operates totally under the control of the IBM Health Checker for z/OS and therefore does not have access to the background and/or interval monitoring or change and/or event detection process found in the other ICE applications: Image FOCUS, The Control Editor and The Supplementals.

1.6 Enhancements in this Release

- IPLCheck 18.0 is built on the latest ICE code base Version 16 Patch 10. Changes improving the availability, reliability and serviceability of the Image FOCUS Core have been made. They are listed in the Image FOCUS 18.0 Read Me. In addition, in this release of Image FOCUS the z/OS Core has been enhanced to provide support z/OS V2R5. It is recommended that current users upgrade to this new release as soon as possible.

1.6.1 This Release

- In this release of Image FOCUS the z/OS Core and its Subsystem and Supplemental Inspectors have been enhanced to provide support for z/OS V3R1. It is recommended that current users upgrade to this new release as soon as possible.

1.6.2 Prior Releases

- Users of IPLCheck Family of Predictive Failure Analysis Applications will benefit from the added change detection function now found in the optional Image Manager application.

  The Image Manager creates three distinct Image Configuration Baselines for each identified LPAR, one baseline each for the Production and Alternate configurations as identified by IPLCheck (The Moving Baselines) and a startup Snapshot of LPAR Environment following the most recent IPL (The Fixed Baseline). Notification of changes discovered may be sent via Email, SMS Text and/or posted to the System Log.

- The following additional PFA Checks and IPLCheck Interfaces are now available:

  1. **IPLCheck-Plus** is directed to 'Alternate' z/OS LPARs via user-managed settings that override IPLCheck-Core discoveries. Alternates include Unit Address, LoadParm, Catalog and development IPLPARM and PARMLIB datasets.

  2. **IPLCheck-Dynamic** evaluates LPALST, LNKLST, APFLST and SYMLST settings. Mismatches with 'Actual' production or alternate configurations often result in a loss of functionality when an LPAR is re-IPLed.

  3. **IPLCheck-Subsystems** extends the discovery and standards enforcement found in IPLCheck-Core and IPLCheck-Plus to include the z/OS subsystems JES, VTAM, CICS and various TCP/IP components.

  4. **IPLCheck-Viewer** analytic findings are reported to the Health Checker Framework where they are immediately distributed, by LPAR, for review and remediation. The

Viewer provides a centralized focal point where the state of all LPARs can be reviewed simultaneously.

- Using a newly provided Image FOCUS Configuration Member, NSEMSG00, users may optionally exercise control over the degree of severity embedded in an Image FOCUS Inspection Message. By default Inspection Message Severity is automatically determined from Internal Control Tables that are based on published IBM documentation and years of real-world experience and user feedback. This new user controlled feature can be used to optionally override these default findings with those deemed more appropriate for their operational environment.

  When this optional feature is in use, all affected Inspection Messages (those changed to a greater or lesser severity) are summarized in a new Image FOCUS Audit Report Segment - The Message Filter Report – that discloses the content of NSEMSG00 and its impact on the Image FOCUS Inspection Results.

1.7 System Requirements

1.7.1 Prerequisites

To use any IPLCheck Family application, you will need Integrity Controls Environment (ICE) 14.0 for z/OS V1R1 or higher and the IBM System Display and Search Facility (SDSF), CA-SysView, or their equivalent. You can access the latest release of ICE at www.newera.com.

1.7.2 The License Key

One or more License Key(s) is required to activate an IPLCheck Family application. Once the License Key(s) is inserted in the ICE Control Member NSEPRM00, the functions of the application are unlocked and become immediately controllable by the IBM Health Checker for z/OS Framework.

1.8 Solving Real-World Problems

- "...When we did the math it was pretty clear that the partnership of the IBM Health Checker for z/OS and the IPLCheck product family represented an insurance policy we just couldn't live without. I mean the RACF Resource Checks alone help us to avoid negative Security Audit Findings. And the z/OS, Sub-system and Dynamic Checks provided by NewEra assure us that z/OS and Sub-System initializations will go as planned. What would an initialization failure cost us? Well in our organization a lot more that $500.00 per LPAR per year. Working together these system tools represent the best Insurance Policy against security and Initialization failure available anywhere. We're all satisfied with the improvements in z/OS integrity and the savings, problem solved. "

- "...money is always a problem in our shop, it's become a way of life to look for the best value, highest return on investment in everything we do. We've been following NewEra and its z/OS Inspection Technology for a long time and were convinced it could help us guard against future IPL failures. We wrote and submitted our justification for approval but management just couldn't give the 'Green Light' because of other financial priorities. I am happy to say that the IPLCheck Family solved all financial concerns. We acquired a license only for our six production LPARs. Management now thinks of LPAR Inspection as *MUST HAVE*." LPARs protected, management happy, problem solved.

- "…we have been using the ICE Application, Image FOCUS in batch (IFOBAT/A/S) for the last 5 years. We consider batch processing a good alternative to Image FOCUS Production for automating individual LPAR Inspections when you are not concerned with the integrity of the overall Sysplex. When we started there were only 3 production LPARS; now we're up to 20 spread across 3 z/Platforms and expect more. We still like the LPAR by LPAR inspection approach we get with IFOBAT/A/S but the numbers are beginning to work against us. I am happy to say that IPLCheck solved this for us. Now we let the IBM Health Checker schedule our LPAR Inspections and report the results. And since we share DASD across the Sysplex and therefore the ICE Application Libraries, all we need to do when adding a new LPAR is copy the IPLCHECK PROC to the LPAR's PROCLIB and start it. And the really good news is that for us there was *NO ADDITIONAL LICENSE FEE*." LPARs protected; growth under control, problem solved.

- "…the thing we like best about the way NewEra is approaching the distribution of its system software environment and applications is that it allowed us to get started with minimal effort and expense, focusing on what we believed to be our most critical issue, LPAR integrity. As we get comfortable with the process we can, at any time, move on to more global z/OS concerns: Sysplex and Sub-System Inspections, Baselines, Change Detection, Release Analysis, Compensating Configuration Control and IODF Configuration Management. We're not at all certain we'll ever need them but our business is growing and that to us means more regulations and more oversight. It's good to know that the

tools we'll need to solve these complex problems are already installed and available." LPARs protected, future assured, problem solved.

- "…I really didn't know very much about the IBM Health Checker for z/OS except that it came packaged as a "freebee" with z/OS. Now we run it constantly and wonder how we ever got along without it. The IPLCheck Family got us hooked and then with a little time and research we turned off checks in the IBM Check Inventory that weren't useful in our shop. Who knows? We may even write a few Checks of our own, it certainly looks doable." LPARs protected, new system tool active, problem solved.

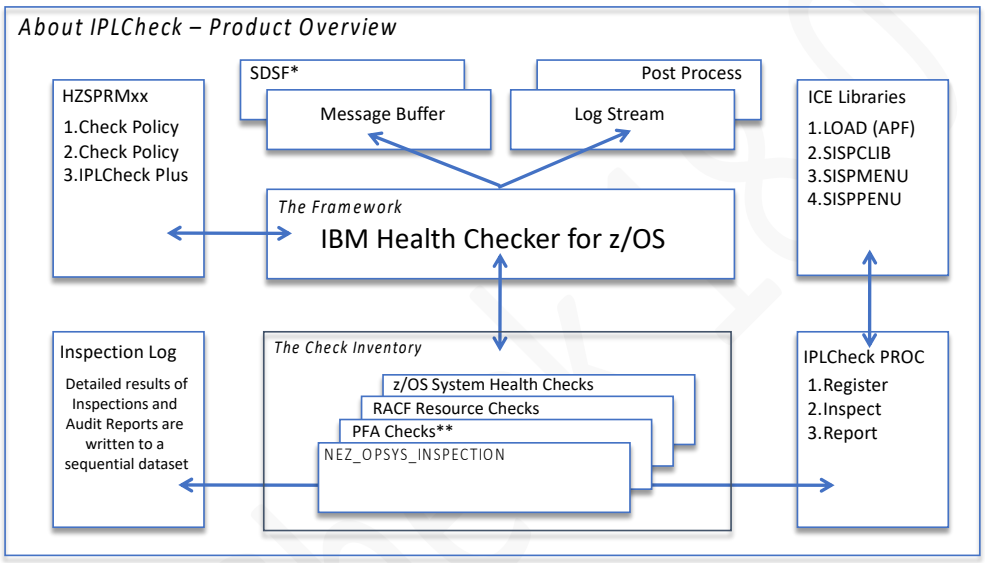
2 Table of Contents

3 IPLCheck Applications

IPLCheck applications are standalone system software product designed to help users of the IBM z/OS Operating System manage and protect the integrity and security of their operating system and sub-system environments and critical business applications.

The IBM Health Checker for z/OS

The IPLCheck Family of Checks



* Or an equivalent (CA SYSVIEW) or HC HZSPRINT Service or HC MODIFY DISPLAY Command

** PFA = Predictive Failure Analysis

Once started, IPLCheck works with, and under the control of, the IBM Health Checker for z/OS. On demand, or at controlled intervals, IPLCheck performs a detailed inspection of an LPAR's IPL status, reporting discovered weaknesses and/or structural risk in IPL components or pathing to the Health Checker.

Unlike the Predictive Failure Analysis Health Checks introduced by IBM in z/OS 1.11 that provide early warning of adverse system trends, IPLCheck predicts IPL failures base on an analysis of the IPL definitions and directives found in the PARMLIB concatenation of a target z/OS LPAR. The analytic processes ensure that future IPL requests will be successful and will provide the facilities and functions required for full system operations post-IPL.

IPLCheck is built upon NewEra's proven Image FOCUS Inspection Server Technology.

3.1 The Health Checker

IBM Health Checker for z/OS provides a foundation to help simplify and automate the identification of potential configuration problems before they impact system availability. It compares active values and configuration settings to those suggested by IBM. The IBM Health Checker for z/OS consists of:

- A framework to manage functions such as check registration, messaging, scheduling, command processing, logging, and reporting.

- An Inventory of Checks, which evaluate settings and definitions specific to products, elements, or components. Checks are provided separately and are independent of the framework; the framework supports checks written by IBM, independent software vendors, and users.

NewEra is proud to be among the first of the independent software vendors to adopt and support the IBM Health Checker for z/OS as the technical framework for the delivery of the LPAR integrity functions provided by the IPLCheck family of applications.

3.2 Installing the ICE Environment

The installation instructions in this section describe, in general, the installation of only the ICE Environment required to run any or all of the qualified ICE Applications. For a complete description of the installation ICE Installation including Automated Operations, Change Detection, Compensating Control and Supplemental Processes and Reporting see The Integrity Controls Environment (ICE) User Guide.

3.2.1 Accessing the ICE Download Package

Before you can begin the installation of IPLCheck you will need to request a new or refreshed ICE download link from NewEra Technical Support. To do this, send an email to support@newera.com using the subject: Send Link to IPLCheck.

The reply email you receive will contain an active link to the ICE Download Package, actually an MVS sequential dataset. To display your personal download page, click the link. Towards the bottom of the page, locate the section titled Authorized Applications. There you will find a link that will give you access to the Fully Authorized ICE Download.

Click the Download link and save download package to your hard drive (local or network). The Integrity Controls Environment “Download” file (.nez extension) is the ICE Install Job. The Job contains all of the JCL necessary to install and start ICE and its applications-Image FOCUS, The Control Editor, Image SENTRY, Fast DASD Erase for z/OS and IPLCheck.

To ensure a successful installation, you should read and understand this section of the User Guide prior to installation. You should also read the Image FOCUS Getting Started Guide available at www.newera.com/startifo.pdf.

If you encounter problems, please contact NewEra Technical Support using one of the following:

- 1-800-421-5035 or 408-520-7100
- support@newera.com

3.2.2 ICE Install Job dataset

Allocate a target dataset for the ICE Install file on the Mainframe. The space requirements for this MVS dataset are listed below:

```
SPACE=(CYL,(200,50)),LRECL=80,BLKSIZE=6160, RECFM=FB
```

3.2.3 Copy the Install file

Copy (FTP) the ICE Install file from your desktop to the target Install dataset on the Mainframe. Note that the install file must be transferred in Binary.

3.2.4 Edit the Install file

Using TSO/ISPF Edit open the ICE Install file and update its Job Card parameters to conform to your site-specific standards by specifying the HLQ, LLQ and DASD Unit and Volume names to be used during the install for allocating the ICE control datasets.

It is critical that you do not renumber the ICE Install file, insert new records into the file or make global changes to the file. No modifications to the file are allowed past line 27.

```
//INSTALL JOB 1,'LOAD INSTLIB',          <===== MODIFY                 00010000
//       CLASS=A,                        <===== MODIFY                 00020000
//       MSGCLASS=A                      <===== MODIFY                 00030000
//*******************************************************************  00040000
//*                                                                 *   00050000
//*   JOB: INSTALL  FUNCTION: INSTALL FROM INLINE DATA              *   00060000
//*                                                                 *   00070000
//*                                                                 *   00080000
//*   STEP:LKED1      LINK EDITS THE LOAD PROGRAM                   *   00090000
//*   STEP:LOAD       VERIFIES JOBSTREAM                            *   00100000
//*   STEP:IEBUPDTE   CREATES THE INSTLIB USING IEBUPDTE            *   00110000
//*   STEP:LKED2      LINK EDITS THE CUSTOMIZE PROGRAM              *   00111000
//*   STEP:PREPX      RUNS THE CUSTOMIZE PROGRAM                    *   00112000
//*                                                                 *   00113000
//*******************************************************************  00114000
//*                                                                      00115000
//*                                                                      00116000
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***  00117000
//*                                                                 ***  00118000
//* DO NOT RENUMBER THIS FILE                                       ***  00119003
//*                                                                 ***  00120000
//* DO NOT MAKE ANY GLOBAL CHANGES TO THIS FILE                     ***  00121003
//*                                                                 ***  00122003
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***  00130000
//*                                                                      00140000
//*                                                                   *  00150000
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS                        *  00160000
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS                       *  00171012
//*  DSKUNIT - UNIT NAME FOR IMAGE FOCUS DATASETS                     *  00180000
//*  DSKVOLU - VOLUME SERIAL NUMBER FOR IMAGE FOCUS DATASETS          *  00190000
//*                                                                      00200000
//*                                                                      00210000
//INSTALL PROC NSSPRFX='HLQ.LLQ',        <===== MODIFY                 00220000
//             SPFPRFX='ISP',            <===== MODIFY                 00230000
//             DSKUNIT=3390,             <===== MODIFY                 00240000
//             DSKVOLU=VPWRKI            <===== MODIFY                 00250000
//*                                                                    00260000
//* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***  00270000
```

3.2.5 SUBMIT the Install

Do not SUBMIT the updated ICE Install file from ISPF Edit. Instead, SAVE the updated file, EXIT the ISPF Edit session, and then SUBMIT the job from the TSO command line (ISPF Option 6 - Command Shell), or from ISPF Option 3.4. Verify the JOB execution return codes.

3.2.6 What to Expect

If a B37 space ABEND is reported when you SUBMIT the updated ICE Install File, it is likely due to submitting from ISPF Edit.

The Install Job creates a library called hlq.llq.INSTLIB (where hlq.llq is replaced by the &nssprfx symbolic you specified) where you will find the ALLOC and BUILD job members.

3.2.7 Edit and submit the member ALLOC

The ALLOC JOB allocates the ICE Configuration Datasets. To conform the JOB prior to execution do the following:

- As needed change the Job Card parameters to conform to your site-specific standards (no other changes required).
- Verify that the HLQ and Volume names are correct.
- SUBMIT the ALLOC JOB.
- Verify the JOB execution return codes.

3.2.8 Edit and submit the member BUILD

The BUILD JOB unloads the ICE Install File and populates the ICE Configuration Datasets.
To conform the JOB prior to execution do the following:

- As needed change the Job Card parameters to conform to your site-specific standards (no other changes required).
- Verify that the HLQ and Volume names are correct.
- SUBMIT the BUILD JOB.
- Verify the JOB execution return codes.

3.2.9 ICE Configuration Datasets

When the ICE installation is complete the following ICE Configuration Datasets will have been created and populated with various operational components.

Dataset Name	Free ICE	Full ICE
hlq.llq.CTL.GLOBAL	*	Yes
hlq.llq.CTL.NPAD	*	Yes
hlq.llq.ICEWORK	Yes	Yes
hlq.llq.INSTLIB	Yes	Yes
hlq.llq.IPLCHECK.system_name.LOG	Yes	Yes
hlq.llq.IPLALT.system_name.LOG	Yes	Yes
hlq.llq.JRL.NPAD	*	Yes
hlq.llq.LOAD	Yes	Yes
hlq.llq.PACKAGE.INDEX	*	Yes
hlq.llq.PARMLIB	Yes	Yes
Hlq.llq.PROCLIB	Yes	Yes
hlq.llq.PROFILE	*	Yes
hlq.llq.REPORT.INDEX	*	Yes
hlq.llq.SAMPLIB	*	Yes
hlq.llq.SISPCLIB	Yes	Yes
hlq.llq.SISPCLB2	Yes	Yes
hlq.llq.SISPMENU	Yes	Yes
hlq.llq.SISPPENU	Yes	Yes
hlq.llq.SISPPNL2	Yes	Yes
hlq.llq.SISPTABB	*	Yes
hlq.llq.SISPTABL	*	Yes
hlq.llq.USERLIB	*	Yes

*These Datasets may be deleted following a “Free” ICE install.

3.2.10 Specify Image FOCUS Licensing Information

If you have downloaded the “Fully Pre-Authorized” (no control cards needed) and performed the “Self Authorized” download, you will be required to copy the Control Cards from the email link and place them in the ICE Configuration member NSEPRM00.

3.2.11 The Complete ICE Installation

The installation instructions in this section describe, in general, the installation of only the ICE Environment required to run any or all of the qualified ICE Applications. For a complete description of the ICE Installation to include Automated Operations, Change Detection, Compensating Control and Supplemental Processes and Reporting, please refer to the Integrity Controls Environment (ICE) User Guide.

3.3 Activating an IPLCheck Application

Once the ICE Environment is installed any of its qualified applications may be immediately activated. This section describes the steps necessary to activate IPLCheck.

3.3.1 Authorize Load Library

You must add and APF authorize the ICE LOAD library (&nssprfx.LOAD) using one of the following:

- Add the dataset name and volume serial number of the load library to the APF member list in either IEAAPFxx or PROGxx.

- If IEAAPFxx is used, edit the IEAAPFxx member in SYS1.PARMLIB adding the following line:

```
"&nssprfx".LOAD volser,
```

  Where "volser" is the volume serial number on which the ICE LOAD library will reside. "&nssprfx" is the chosen dataset prefix for ICE.

  Note: If &nssprf.LOAD volser is not the last entry in the member, a comma must follow.

- If PROGxx is used, edit an appropriate in-line PROGxx member adding the following line:

```
APF ADD DSNAME("&nssprfx".LOAD) VOLUME(volser)
```

  Where "volser" is the volume serial number on which the ICE LOAD library will reside. "&nssprfx" is the chosen dataset prefix for ICE.

3.3.2 Update IKJTSOxx Member

Add the IPLCheck specific command NSIBSAS to the AUTHCMD section of the IKJTSOxx PARMLIB member and refresh the member from an operator console as follows:

```
SET IKJTSO=xx
```

3.4 Starting IPLCheck-Core

Move/Copy the IPLCheck-Core PROC, (IPLCHECK), from &nssprfx.PROCLIB to the *INSTALL* LPAR's ProcLib.

3.4.1 Working Dataset

Keyword		Functional Description
NSSPRFX		The dataset prefix used to define the working Image FOCUS Datasets. Must match the setup prefix defined in the Image FOCUS Parmlib member NSEPRMxx.
SPFPRFX		The dataset prefix used to define the IBM ISPF/PDF Datasets. Must match the setup prefix defined in the Image FOCUS Parmlib member NSEPRMxx.
PRM		The suffix of the NSEPRMxx controlling the execution of Image FOCUS as found in the Image FOCUS Parmlib dataset.

3.4.2 Application Configuration

Keyword	*	Functional Description
ADDC		The suffix of an optional COMMNDxx member to be used for signaling the start of processes not normally started during the early stages of an IPL, i.e TCP/IP or CICS regions. NOTE: Member name is required. If you do not require an additional start command create and reference a 'DUMMY' member.
WARN		Specify "E" to report Inspection Warning messages as Health Checker Exception messages. Specify "I" to report Inspection Warning messages as Health Checker Information messages.
CAT		SYSCAT SUFFIX (OPTIONAL)

3.4.3 Allocate IPLCHECK Log Dataset

The ALLOCIPL PROC found in ifohlq.ifollq.INSTLIB can be used to allocate the required Log Dataset.

3.4.4 Verify Log Dataset Name

Before executing the PROC verify that the //REPORT DD Statement that defines the IPLCheck Log Dataset is in the form shown below. Do not modify the format, as it will be used by the available ICE-Viewer to locate the Inspection Logs for each system running the IPLCheck-Core application.

```
//REPORT    DD DISP=SHR,DSN=&NSSPRFX..IPLCHECK.&SYSNAME..LOG
```

3.4.5 IPLCheck-Core Sample PROC

```
******************************** Top of Data ********************************
//*-------------------------------------------------------*
//*               NEWERA IPLCHECK                         *
//*             STARTED TASK PROCEDURE                    *
//*                                                       *
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS            *
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS           *
//*  PRM     - SUFFIX FOR NSEPRMXX MEMBER                 *
//*  ADDC    - SUFFIX FOR ADDITIONAL COMMNDXX MEMBER      *
//*  WARN    - E- TREAT WARNING MESSAGES AS EXCEPTIONS    *
//*          - I- TREAT WARNING MESSAGES AS INFORMATION   *
//*  CAT     - SYSCAT SUFFIX (OPTIONAL)                   *
//*                                                       *
//*-------------------------------------------------------*
//*                                                       *
//HCHECK  PROC NSSPRFX='IFO.TEST',
//             SPFPRFX='ISP',
//             PRM='00',                 <===== MODIFY
//             ADDC='$$',                <===== MODIFY  (Required Member Name)
//             WARN=E,                   <===== MODIFY
//             CAT=                      <===== MODIFY
//*
//IEFPROC  EXEC PGM=NSIBSAS,
//             PARM='ISPSTART CMD(%IFBGHCK &PRM,&ADDC,&WARN,&CAT)',
//             DYNAMNBR=800,
//             REGION=20M
//STEPLIB   DD DISP=SHR,DSN=&NSSPRFX..LOAD
//NSEPARM   DD DISP=SHR,DSN=&NSSPRFX..PARMLIB
//NSEULIB   DD DISP=SHR,DSN=&NSSPRFX..USERLIB
//REPORT    DD DISP=SHR,DSN=&NSSPRFX..IPLCHECK.&SYSNAME..LOG
//ISPPROF   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//ISPCTL1   DD SPACE=(TRK,(5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//ISPLST1   DD SPACE=(CYL,(1,1)),UNIT=SYSDA,
//             BLKSIZE=1210,LRECL=121,RECFM=FBA
//ISPTABL   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//NSEPWORK  DD UNIT=SYSDA,SPACE=(CYL,(5,1))
//NSEPWRK2  DD UNIT=SYSDA,SPACE=(CYL,(5,1))
//NSEPWRK3  DD UNIT=SYSDA,SPACE=(CYL,(32,8)),
//             LRECL=120,RECFM=FB,
//             DISP=(MOD,DELETE)
//SYSPROC   DD DISP=SHR,DSN=&NSSPRFX..SISPCLIB
//          DD DISP=SHR,DSN=&NSSPRFX..SISPCLB2
//          DD DISP=SHR,DSN=&SPFPRFX..SISPCLIB          ISPF
//SYSEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC          ISPF
//ISPMLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPMENU
//          DD DISP=SHR,DSN=&SPFPRFX..SISPMENU          ISPF
//ISPEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC          ISPF
//ISPPLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPPENU
//          DD DISP=SHR,DSN=&NSSPRFX..SISPPNL2
//          DD DISP=SHR,DSN=&SPFPRFX..SISPPENU          ISPF
//ISPSLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPSENU          ISPF
//          DD DISP=SHR,DSN=&SPFPRFX..SISPSLIB          ISPF
//ISPTLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPTENU          ISPF
//ISPLOG    DD SYSOUT=A,HOLD=YES,
//             BLKSIZE=129,LRECL=125,RECFM=VA
//SYSTSIN   DD DUMMY
//SYSTSPRT  DD SYSOUT=A,HOLD=YES
//SYSUDUMP  DD SYSOUT=A,HOLD=YES
******************************** Bottom of Data ********************************
```

3.5 Starting IPLCheck-Alt

Move/Copy the IPLCheck-Alt PROC, (IPLALT), from &nssprfx.PROCLIB to the *INSTALL* LPAR's ProcLib.

3.5.1 Working Datasets and IFO ParmLib Member Suffix

Keyword		Functional Description
NSSPRFX		The dataset prefix used to define the working Image FOCUS Datasets. Must match the setup prefix defined in the Image FOCUS Parmlib member NSEPRMxx.
SPFPRFX		The dataset prefix used to define the IBM ISPF/PDF Datasets. Must match the setup prefix defined in the Image FOCUS Parmlib member NSEPRMxx.
PRM		The suffix of the NSEPRMxx controlling the execution of Image FOCUS as found in the Image FOCUS Parmlib dataset.

3.5.2 Application Configuration

Keyword	*	Functional Description
ADDC		The suffix of an optional COMMNDxx member to be used for signaling the start of processes not normally started during the early stages of an IPL, i.e TCP/IP or CICS regions. NOTE: Member name is required. If you do not require an additional start command create and reference a 'DUMMY' member.
WARN		Specify "E" to report Inspection Warning messages as Health Checker Exception messages. Specify "I" to report Inspection Warning messages as Health Checker Information messages.
CAT		SYSCAT SUFFIX (OPTIONAL)
ID		A three-character label to be used as part of the Check-Name. Should be used to distinguish individual checks by LPAR.
IPLU		4 hex digit unit address of the alternate IPL volume, required
LPRM	*	1-8 character LOADPARM, optional.
HWN	*	1-8 character Hardware name to be used, optional
LPN	*	1-8 character LPAR name to be used, optional
VMN	*	1-8 character VM UserId to be used, optional
	*	If not specified the value of this Keyword will default to the automatically discovered running system value.

3.5.3 Allocate IPLALT Log Dataset

The ALLOCALT PROC found in ifohlq.ifollq.INSTLIB can be used to allocate the required Log Dataset.

3.5.4 Verify Log Dataset Name

Before executing the PROC, verify that the //REPORT DD Statement that defines the IPLCheck-Alt Log Dataset is in the form shown below. Do not modify the format, as it will be used by the available ICE-Viewer to locate the IInspection Logs for each system running the IPLCheck-Alt application.

```
//REPORT    DD DISP=SHR,DSN=&NSSPRFX.. IPLALT.&SYSNAME..LOG
```

3.5.5 IPLCheck-Alt Sample PROC

```
******************************** Top of Data ********************************
//*-------------------------------------------------------*
//*            NEWERA IPLCHECK PLUS SUITE                 *
//*          IPLCHECK FROM AN ALTERNATE IMAGE             *
//*             STARTED TASK PROCEDURE                    *
//*                                                       *
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS            *
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS           *
//*  PRM     - SUFFIX FOR NSEPRMXX MEMBER                 *
//*  ADDC    - SUFFIX FOR ADDITIONAL COMMNDXX MEMBER      *
//*  WARN    - E- TREAT WARNING MESSAGES AS EXCEPTIONS    *
//*            I- TREAT WARNING MESSAGES AS INFORMATION   *
//*  ID      - THREE-CHARACTER IDENTIFIER TO BE USED      *
//*            AS PART OF THE CHECK NAME.                 *
//*  CAT     - SYSCAT SUFFIX (OPTIONAL)                   *
//*                                                       *
//*  IPLU, LPRM, HWN, LPN, AND VMN, IF SUPPLIED HERE      *
//*  WILL OVERRIDE THE RUNNING SYSTEM VALUES WHICH ARE    *
//*  THE DEFAULTS.                                        *
//*                                                       *
//*-------------------------------------------------------*
//*                                                       *
//HCHECK  PROC NSSPRFX='IFO.TEST',
//             SPFPRFX='ISP',
//             PRM='00',                 <===== MODIFY
//             ADDC='$$',                <===== MODIFY
//             WARN=E,                   <===== MODIFY
//             CAT=,                     <===== MODIFY
//             ID='ALT',                 <===== MODIFY
//             IPLU=????,     IPL UNIT ADDRESS (4     CHARS; REQUIRED)
//             LPRM=,         LOADPARM         (4 - 8 CHARS; OPTIONAL)
//             HWN=,          HARDWARE NAME    (1 - 8 CHARS; OPTIONAL)
//             LPN=,          LPAR NAME        (1 - 8 CHARS; OPTIONAL)
//             VMN=           VM USERID        (1 - 8 CHARS; OPTIONAL)
//*
//IEFPROC  EXEC PGM=NSIBSAS,
//   PARM='ISPSTART CMD(%IFBGHCK &PRM,&ADDC,&WARN,&CAT,&ID,&IPLU,&LPRM,
//             &HWN,&LPN,&VMN)',
//             DYNAMNBR=800,
//             REGION=20M
//STEPLIB   DD DISP=SHR,DSN=&NSSPRFX..LOAD
//* - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
//* UNCOMMENT THE $IPLPARM DD TO USE A TEST IPLPARM DATASET
//*
//*$IPLPARM  DD DISP=SHR,DSN=YOUR.ALTERNATE.IPLPARM
//*
//* - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
//* UNCOMMENT THE $PRMLB$$ DD TO ADD A TEST PARMLIB DATASET TO
//* THE TOP OF THE PARMLIB DATASET CONCATENTAION
//*
//*$PRMLB$$  DD DISP=SHR,DSN=YOUR.ADDITIONAL.PARMLIB
//*
//* - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
//NSEPARM   DD DISP=SHR,DSN=&NSSPRFX..PARMLIB
//NSEULIB   DD DISP=SHR,DSN=&NSSPRFX..USERLIB
//REPORT    DD DISP=SHR,DSN=&NSSPRFX..IPLALT.&SYSNAME..LOG
//ISPPROF   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//ISPCTL1   DD SPACE=(TRK,(5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//ISPLST1   DD SPACE=(CYL,(1,1)),UNIT=SYSDA,
//             BLKSIZE=1210,LRECL=121,RECFM=FBA
//ISPTABL   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,
//             BLKSIZE=3120,LRECL=80,RECFM=FB
//NSEPWORK  DD UNIT=SYSDA,SPACE=(CYL,(5,1))
```

```
//NSEPWRK2  DD UNIT=SYSDA,SPACE=(CYL,(5,1))
//NSEPWRK3  DD UNIT=SYSDA,SPACE=(CYL,(32,8)),
//             LRECL=120,RECFM=FB,
//             DISP=(MOD,DELETE)
//SYSPROC   DD DISP=SHR,DSN=&NSSPRFX..SISPCLIB
//          DD DISP=SHR,DSN=&NSSPRFX..SISPCLB2
//          DD DISP=SHR,DSN=&SPFPRFX..SISPCLIB           ISPF
//SYSEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF
//ISPMLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPMENU
//          DD DISP=SHR,DSN=&SPFPRFX..SISPMENU           ISPF
//ISPEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF
//ISPPLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPPENU
//          DD DISP=SHR,DSN=&NSSPRFX..SISPPNL2
//          DD DISP=SHR,DSN=&SPFPRFX..SISPPENU           ISPF
//ISPSLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPSENU           ISPF
//          DD DISP=SHR,DSN=&SPFPRFX..SISPSLIB           ISPF
//ISPTLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPTENU           ISPF
//ISPLOG    DD SYSOUT=A,HOLD=YES,
//             BLKSIZE=129,LRECL=125,RECFM=VA
//SYSTSIN   DD DUMMY
//SYSTSPRT  DD SYSOUT=A,HOLD=YES
//SYSUDUMP  DD SYSOUT=A,HOLD=YES
******************************** Bottom of Data ********************************
```

3.6 Starting IPLCheck-Subsystems

The Subsystem checks (JES2/3, VTAM, TCP/IP and CICS) all require either IPLCheck-Core or IPLCheck-Alt and a Subsystem License Key. When the Subsystem License Key is present in the NSEPRMxx Member, starting either the IPLCheck-Core or IPLCheck-Alt PROC will automatically result in the inclusion of the subsystem inspection records within the Inspection Log Dataset.

3.7 Starting IPLCheck Viewer

The IPLCheck Viewer is selectedable from the Integrity Controls Environment (ICE) Primary Menu. To display the Viewer Primary Menu placing 'V' on the command line (representing the Viewer option) and pressing enter.

```
               ICE 18.0 - The Integrity Control Environment

   P   ProdView  .. - Image Focus Production Views          Userid    - RFAUL1
                                                           Time      - 07:37
   W   WorkView  .. - Image Focus Workbench Views          Terminal  - 3278
                                                           System    - ADCD113
   R   DRecView  .. - Image Focus Recovery Views           Applid    - TEST
                                                            Image Focus 18.0
   C   Controls  .. - Controls Environment Settings         Patch Level GA

   V   IPLViews  .. - IPLCheck Results Focal Point

   D   Defining  .. - IFO Definitions and Settings

                      ****************************
                      * Background Task: DOWN    *
                      * No/TSO Recovery: DOWN    *
                      ****************************

   X   Exit         - Terminate

NewEra Software, Inc.
   Our Job? Help you make repairs, avoid problems, and improve IPL integrity.
Option  ===>
```

3.7.1 The ICE Viewer Primary Menu

```
               VUE 18.0 - Integrity Control Environment Viewer

   C   IPLCore  ..  - Production IPL Configurations        Userid    - RFAUL1
                                                          Time      - 07:36
   P   IPLPlus  ..  - Alternative IPL Configurations      Sysplex   - ADCDPL
                                                          System    - ADCD113
   M   Manager  ..  - View Managed Peer Image Changes     IFOhlq    - TEST
                                                          ICE 18.0 - VUE 18.0
   S   StepOne  ..  - Explores all IODF Configurations     Patch Level GA

   J   JEvents  ..  - Access a Timeline of Change Events

   Z   zChecks  ..  - z/OS Health Checks for Named Systems

   D   Detects  ..  - Baseline Named z/OS Control Boundaries


   X   Exit         - Return to the ICE Primary Menu

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Option ===>
```

3.8 Post Installation Activities

3.8.1 Supporting Multiple LPARs

The same IPLCheck PROC may be executed on other LPARs, within the same physical z/Platform, if the LPARs share DASD with the *INSTALL* LPAR and have access to the same sets of IPLCheck System, PARMLIB and PROCLIB datasets. Each additional LPAR *MUST* have a unique Inspection Log Dataset. Generally this Dataset distinction is made in the individual PROC by the automatic substitution/insertion of the SYSTEM NAME into the Log Dataset Name.

The ALLOCIPL and ALLOCALT PROC, found in ifohlq.ifollq.INSTLIB, can be used to allocate the required unique dataset on each additional LPAR.

If a manual allocation process is required, use the following dataset attributes for each unique Log Dataset.

```
SPACE=(CYL,(16,1)),LRECL=120,BLKSIZE=0,RECFM=FB,NEW,CATLG
```

If an LPAR does not share the same IKJTSOxx PARMLIB member as the *INSTALL* LPAR, add the IPLCheck-Core and/or IPLCheck-Alt specific command NSIBSAS to the AUTHCMD section of the LPAR's IKJTSOxx member before the *REQUIRED* member refresh. To refresh the LPAR's IKJTSOxx member, use the following MVS Operator Command:

```
SET IKJTSO=xx
```

If the LPAR target does not share DASD, or is on another z/Platform, a new install of IPLCheck is required. Unique Log Dataset names are not required but highly recommended.

3.8.2 Starting an IPLCheck PROC

From any MVS Operator Console or equivalent, START IPLCHECK or START IPLALT (a started task). Once IPLCheck-Core and/or IPLCheck-Alt are started, the task will remain active until stopped or the LPAR is IPLed.

The first action taken by an IPLCheck application, after it is started, is to register itself with the IBM Health Checker for z/OS using the Check Name:

```
NEZ_OPSYS_INSPECTION
or
NEZ_(id)_OPSYS_INSPECTION
```

Where "id" is the three-character value assigned on the ID keyword (default is 'ALT') found in the IPLCheck-Alt PROC, IPLALT.

3.8.3 What to Expect

Once started, IPLCheck will register itself with the IBM Health Checker for z/OS and be requested to run immediately. Following this initial execution, the IBM Health Checker for z/OS will call IPLCheck approximately every two hours.

3.8.4 Changing the Interval

Updating the HZSPRMxx member with a CHECK POLICY, like the one shown below, will permanently change the interval, at which IPLCheck-Core and IPLCheck-Alt are called:

```
ADDREPLACE POLICY STMT(NEZP) UPDATE CHECK(NEWERA,*)
           DATE(yyyymmdd) INTERVAL(4:00)
           REASON('UPDATE INTERVAL TO 4 HOURS')
```

Updating the HZSPRMxx member with a CHECK POLICY, like the one shown below, will permanently change the interval, at which IPLCheck-Core is called:

```
ADDREPLACE POLICY STMT(NEZP) UPDATE CHECK(NEWERA,NEZ_OPSYS*)
           DATE(yyyymmdd) INTERVAL(4:00)
           REASON('UPDATE INTERVAL TO 4 HOURS')
```

Updating the HZSPRMxx member with a CHECK POLICY, like the one shown below, will permanently change the interval, at which IPLCheck-Alt is called:

```
ADDREPLACE POLICY STMT(NEZP) UPDATE CHECK(NEWERA,NEZ_id_OPSYS*)
           DATE(yyyymmdd) INTERVAL(4:00)
           REASON('UPDATE INTERVAL TO 4 HOURS')
```

Where “id” is the value from the IPLALT PROC ID keyword.

3.8.5 Verify Activity

Verify that the IBM Health Checker for z/OS is running on the IPLCheck target LPAR. If not, START HZSPROC and verify activity using SDSF or an equivalent system management tool.

3.8.6 Problems with HZSPROC and IPLCHECK

Depending on your External Security Manager (ESM)- RACF, ACF2 or Top Secret- you may encounter the following or similar errors in syslog when you attempt to start the IPLCheck PROC.

```
J E S 2  J O B  L O G  --  S Y S T E M  S Y S N  --  N O D E  N G I C J 2 N 2

11.22.32 STC08842 ---- WEDNESDAY, 16 AUG 2019 ----
11.22.32 STC08842  IEF695I START IPLCHECK WITH JOBNAME IPLCHECK IS ASSIGNED TO USER
IPLCHECK, GROUP #STCNON
11.22.32 STC08842  $HASP373 IPLCHECK STARTED
11.22.32 STC08842  IEF403I IPLCHECK - STARTED - TIME=11.22.32
11.22.32 STC08842  IFO0375I IPLCHECK INITIALIZATION COMPLETE FOR STC=IPLCHECK.
11.22.33  STC08842    +IFO0309E  HZSADDCK  RETURN  CODE  X'00000008';  REASON  CODE
X'02010859'.
…
```

This is caused by the lack of authorization of the HZSPROC. The IBM manual says:

"That the calling program has CONTROL access to the SAF resource HZS.sysname.checkowner.checkname.ADD in the XFACILIT class."

To correct for this error try the following:

```
RDEFINE XFACILIT HZS.*. NEWERA.** UACC(NONE)
PERMIT HZS.*.NEWERA.** CLASS(XFACILIT) ID(IFOSTCP) ACCESS(CONTROL)
SETROPTS REFRESH RACLIST(XFACILIT)
```

Restart IPLCHECK and check the log for the 309E message. If the message does reappear, contact NewEra Technical Support, support@newera.com.

3.8.7 Message Management

Image FOCUS Inspection Reports detail the state of each inspection action and inspection result using an 8-character message number. This message number is composed of three independent elements: positions 1-3 are the Inspector Identifiers, positions 4-7 are the Message Numbers, and position 8 is used to denote Message Severity. Message Severity levels include: "I" to indicate an Information message, "N" to indicate a Notice message, "W" to indicate a Warning message, and finally "E" to denote an Error message. A string of descriptive Message Text follows each Inspection Message to help amplify in meaning. The Inspection Report lines shown below show these relationships and an ERROR being reported by message number IFO0615E.

```
IFO0935I SEARCHING FOR BPXPRMMS MEMBER.
IFO0940I  BPXPRMMS FOUND IN PARMLIB(1) VOL=VTMVSG;DSN=SVTSC.PARMLIB.
IFO0675I  BPXPRMMS LAST CHANGED DATE=2019/08/01 TIME=14:32:46 USER=IBMUSER.
IFO0923I  BPXPRMMS MEMBER CONTENTS ARE AS FOLLOWS:
|----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
|/*************************************************************/
|/* Copy from CSQ700.SVSC.CUSTOM.INSTALL(BPXPRMMS) to
|/* VENDOR.PARMLIB(BPXPRMMS).
|/* Update VENDOR.PARMLIB(IEASYSVN) OMVS=(OM,VN),    to add MS --->
|/* OMVS=(OM,VN,MS)
|/*************************************************************/
|MOUNT    FILESYSTEM('CSQ700.MQM.HFS')
|         TYPE(HFS)
|         MODE(READ)
|         MOUNTPOINT('/usr/lpp/mqm/V7R0M0')
IFO0615E  UNBALANCED COMMENTS DETECTED.
IFO0718I SEARCHING FOR HFS DATASET(S).
IFO0724I  CATALOG NAME FOR CSQ700.MQM.HFS IS CATALOG.CSQ700.
IFO0998I  CSQ700.MQM.HFS FOUND ON VOLUME VTMQ7A.
```

All Inspection Message severity levels are based on published IBM Documentation, Industry and Customer Experience. By default, they are considered "Technically Correct", deserving of serious attention and ignored at the risk of losing system integrity. These cautions not withstanding, based on specific site experiences and unique site requirements, users may wish to alter these message severities. This can be accomplished by using the optional NSEMSG00 PARMLIB member.

In the Inspection Report lines shown above, take note of the 'IFO0615E' message. If it is considered appropriate to change this message from a severity of ERROR to a severity of WARNING, insert the following message syntax into the NSEMSG00 PARMLIB member.

```
IFO0615E(W)
```

In certain circumstances, it may be desirable to limit the message severity change to only those cases that are further qualified by all or a portion of the content of the message text that is associated with the Inspection Message.

In the first example shown below, the message severity is changed from a WARNING to NOTICE but only if the word `PROCEDURE TCPIP` is also found in the message.

In the second example, the message severity is changed from a WARNING to an ERROR but only if the prefix `SYS1` is found in the message.

```
IFO0983W(N) ' PROCEDURE TCPIP '
IFO0749W(E)              ' SYS1'              /* find SYS1 Datasets */
```

When message text is used as a qualifier, the string to be matched with the text must be enclosed in single quotes. The quoted qualifier may appear anywhere in the message text between columns 13 through 71.

If the string to be matched contains a single quote, then place two single quotes in succession to represent a single quote as shown in the example below.

```
IFO0796E(W)      'LET''S GO'         /* match LET'S GO */
```

The increase or decrease in message severity that results from the use of NSEMSG00 along with all reported ERROR, WARNING and NOTICE messages and the entire NSEMSG00 member are reported in the Message Summary Report. The Message Summary Report is linked to the Inspection Report Index using the label MSS_RPT.

There may be times when you would like an Information Message, an "I", which would not normally be included in the Message Summary to appear. To accomplish this, code the desired message severity the same as the old. In the example below the text is presented for amplification of the related Information Message text only and not necessary.

```
IFO0940I(I)  LOADW1 FOUND IN IPLPARM(0) VOL=VPMVSB;DSN=SYS1.IPLPARM.
```

3.8.7.1 NSEMSG00 SYNTAX Rules

- The entire line may be a comment by placing an asterisk in column 1.
- Comments may be added to any line, with or without a string, and may appear before or after the string.
- A blank in column 1 on any line of NSEMSG00 will cause a syntax error.
- The actual Inspection Message to be changed must begin in column 1 and end in column 8.

- The desired message severity: I, N, W or E must be preceded by "(" beginning in position 9 followed by the new severity and then followed by ")" in position 11.

3.8.7.2 NSEMSG00 Limitations

Message Filtering/Changes has certain limitations; currently message IFO0909E cannot be changed.

4 Using IPLCheck

Once IPLCheck is started, it will automatically register its availability with IBM Health Checker for z/OS, which will immediately take control, scheduling LPAR Inspections and routing inspection results to the SDSF Message Buffer and the System/Sysplex Log Stream. In addition, with each inspection execution, IPLCheck will create and store a detail Log of its inspection processes and findings, The Inspection Log.

4.1 Validating IPLCheck Application Status

Once an IPLCheck application is started, validate that both it and the IBM Health Checker for z/OS are operational.

```
Display  Filter  View  Print  Options  Help
-------------------------------------------------------------------------------
SDSF STATUS DISPLAY ALL CLASSES                        LINE 1-19 (28)
COMMAND INPUT ===>                                       SCROLL ===> PAGE
NP   JOBNAME  JobID    Owner    Prty Queue      C  Pos  SAff  ASys Status
PROBI1   TSU01940 PROBI1     15 EXECUTION          NEZ1  NEZ1
SDSF     STC01361 STRTASK    15 EXECUTION          NEZ1  NEZ1
VTAM     STC01363 STRTASK    15 EXECUTION          NEZ1  NEZ1
HZSPROC  STC01367 STCOPER    15 EXECUTION          NEZ1  NEZ1
ZFS      STC01369 STCOPER    15 EXECUTION          NEZ1  NEZ1
SYSLOG   STC01370 +MASTER+   15 EXECUTION          NEZ1  NEZ1
INIT     STC01371 STRTASK    15 EXECUTION          NEZ1  NEZ1
INIT     STC01372 STRTASK    15 EXECUTION          NEZ1  NEZ1
RACF     STC01380 STRTASK    15 EXECUTION          NEZ1  NEZ1
BPXAS    STC01381 OMVSKERN   15 EXECUTION          NEZ1  NEZ1
BPXAS    STC01384 OMVSKERN   15 EXECUTION          NEZ1  NEZ1
TCPIP    STC01386 TCPIP      15 EXECUTION          NEZ1  NEZ1
TN3270   STC01387 TCPIP      15 EXECUTION          NEZ1  NEZ1
TCAS     STC01390 STRTASK    15 EXECUTION          NEZ1  NEZ1
IFOEM    STC01807 STCOPER    15 EXECUTION          NEZ1  NEZ1
IPLCHECK STC01841 STCOPER    15 EXECUTION          NEZ1  NEZ1
IPLALT   STC01841 STCOPER    15 EXECUTION          NEZ1  NEZ1
IFOCM    STC01894 STCOPER    15 EXECUTION          NEZ1  NEZ1
$MASCOMM STC00001            15 PRINT             1
IFOBM    STC01856 STCOPER     1 PRINT             2
```

4.2 Viewing Check Results in SDSF

From the SDSF Primary Option Menu, select CK to access the SDSF Health Checker Display.

```
Display  Filter  View  Print  Options  Help
-------------------------------------------------------------------------------
HQX7740 -----------------  SDSF PRIMARY OPTION MENU  --------------------------
COMMAND INPUT ===>                                          SCROLL ===> PAGE

DA     Active users                     INIT  Initiators
I      Input queue                      PR    Printers
O      Output queue                     PUN   Punches
H      Held output queue                RDR   Readers
ST     Status of jobs                   LINE  Lines
                                        NODE  Nodes
LOG    System log                       SO    Spool offload
MAS    Members in the MAS
JC     Job classes                      CK    Health checker
SE     Scheduling environments
RES    WLM resources                    ULOG  User session log

END    Exit SDSF
```

Page down until you locate the NEZ_OPSYS_INSPECTION Check. Take note of the Check State and Check Status. Page the display to the right for additional information or to alter the Check Interval. The revised interval will persist for as long as the IBM Health Checker for z/OS remains active. The results of an IPLCheck execution can be updated at any time from this display by placing an "R" before the Check Name and pressing enter.

```
  Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------------
SDSF HEALTH CHECKER DISPLAY  S0W1                      LINE 59-95 (174)
COMMAND INPUT ===>                                        SCROLL ===> CSR
PREFIX=*  DEST=(ALL)  OWNER=*  SYSNAME=
NP   NAME                            CheckOwner       State              Status
     IXGLOGR_STRUCTUREFULL           IBMIXGLOGR       ACTIVE(ENABLED)    SUCCES
     JES2_Z11_UPGRADE_CK_JES2        IBMJES2          ACTIVE(ENABLED)    SUCCES
     NEZ_OPSYS_INSPECTION            NEWERA           ACTIVE(ENABLED)    EXCEPT
     NEZ_SETR_INSPECTION             NEWERA           ACTIVE(ENABLED)    SUCCES
     NEZ_SETR_PWD_INSPECTION         NEWERA           ACTIVE(ENABLED)    SUCCES
     PDSE_SMSPDSE1                   IBMPDSE          ACTIVE(ENABLED)    EXCEPT
     RACF_AIM_STAGE                  IBMRACF          ACTIVE(ENABLED)    SUCCES
     RACF_CSFKEYS_ACTIVE             IBMRACF          ACTIVE(ENABLED)    SUCCES
```

Note that the NEZ_SETR_INSPECTION and NEZ_SETR_PWD_INSPECTION Checks are not part of IPLCheck Core

To display the results of the Check, place an "S" to the left of the Check name and press enter. Take note of any Inspection Messages, shown in the body of the report, and examine the content of the Inspection Log Dataset for additional detail, as needed.

4.2.1 Sample NEZ_OPSYS_INSPECTION Messages

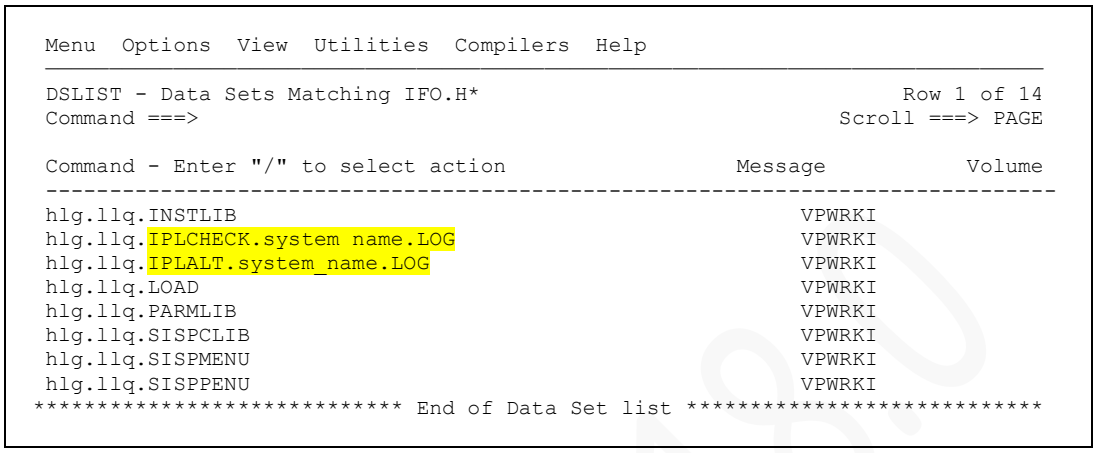
```
Display  Filter  View  Print  Options  Help
-------------------------------------------------------------------------------
SDSF OUTPUT DISPLAY NEZ_OPSYS_INSPECTION          LINE 0       COLUMNS 02- 81
COMMAND INPUT ===>                                            SCROLL ===> PAGE
******************************** TOP OF DATA ***********************************
CHECK(NEWERA,NEZ_OPSYS_INSPECTION)
START TIME: 08/06/2019 16:10:43.424670
CHECK DATE: 20100302  CHECK SEVERITY: HIGH

INSPECTION SUMMARY Report

Message  Text
-------- ---------------------------------------------------------------
IFO0795E  SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
IFO0796E  SECONDARY ALLOCATION NOT ALLOWED.
IFO0725N  OBSOLETE PARAMETER APG IGNORED.
IFO0651N  CMB= VALUE WILL BE IGNORED ON A REAL IPL OF A Z990 OR NEWER P
IFO0964W  SMS - MULTIPLE PARAMETERS NOT ALLOWED.
IFO0769N  TCPIP.SEZAMIG NOT FOUND ON VOLUME VTMVSC.
IFO2100N  *INTEGRITY* APF DATASETS SHOULD NOT BE DEFINED IF THEY DO NOT
IFO0768N  MASTCAT.DSN410.SDSNLINK BYPASSED; VOLUME VTD41A NOT MOUNTED.
IFO0768N  DSN410.SDXRRESL BYPASSED; VOLUME VTD41A NOT MOUNTED.
IFO0786W  UNCLOSED COMMENT DETECTED.
IFO0987W  MEMBER DATA AFTER LOGICAL END OF FILE.
IFO0413N  IQI580.SIQILPA/VTIQIA IS A DUPLICATE LPALST ENTRY.
IFO0608W  SYSLBC IGNORED AS OF Z/OS V1R3; USE IKJTSOXX.

* High Severity Exception *

NEZH051E The NEZ_OPSYS_INSPECTION check has found one or
more potential errors in IPL integrity of this system.

Explanation:  The Image Focus inspection has found one or more
potential errors with the IPL and System startup of this system.

System Action:  The check continues processing. There is no effect on
the system at this time.

Operator Response:  Report this item to the System Programmer.

System Programmer Response:  Examine the related Image Focus
inspection report.

Problem Determination:  Examine the related Image Focus messages
manual and any related IBM manuals.

Source:  Image Focus Messages

Reference Documentation:
Image Focus Messages
z/OS MVS Initialization and Tuning Reference

Automation:  None.

Check Reason:  VERIFY IPL INTEGRITY

END TIME: 08/06/2019 16:11:23.565706  STATUS: EXCEPTION-HIGH
```

4.2.2 Sample NEZ_JES2_INSPECTION Messages

```
Display  Filter  View  Print  Options  Help
-------------------------------------------------------------------------------
SDSF OUTPUT DISPLAY NEZ_OPSYS_INSPECTION          LINE 0       COLUMNS 02- 81
COMMAND INPUT ===>                                            SCROLL ===> PAGE
******************************** TOP OF DATA ********************************
CHECK(NEWERA,NEZ_JES2_INSPECTION)
START TIME: 09/28/2019 10:09:46.195957
CHECK DATE: 20110926  CHECK SEVERITY: HIGH

INSPECTION SUMMARY Report

Message  Text
-------- ------------------------------------------------------------------
JES0168W OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 84, COLUMN 10. REPLACE
JES0153W LINE 00082: I(6)      NAME=6,
JES0153W LINE 00083:           CLASS=BA,
JES0152W WARNING AT: ----+----*----+----2----+----3----+----4----+----5
JES0168W OBSOLETE KEYWORD 'RDINUM' FOUND AT LINE 129, COLUMN 10. DELETE
JES0153W LINE 00126: INTRDR    AUTH=(JOB=YES,DEVICE=YES,SYSTEM=YES),
JES0153W LINE 00127:           CLASS=A,
JES0153W LINE 00128:           HOLD=NO,
JES0152W WARNING AT: ----+----*----+----2----+----3----+----4----+----5
JES0153W LINE 00129:           RDINUM=20
JES0168W OBSOLETE KEYWORD 'TGBPERVL' FOUND AT LINE 546, COLUMN 10.
JES0153W LINE 00542: SPOOLDEF BUFSIZE=3992,
JES0153W LINE 00543:           DSNAME=SYS1.HASPACE,
JES0153W LINE 00544:           FENCE=NO,
JES0153W LINE 00545:           LARGEDS=ALLOWED,
JES0152W WARNING AT: ----+----*----+----2----+----3----+----4----+----5
JES0153W LINE 00546:           TGBPERVL=5,

* High Severity Exception *

NEZH051E The NEZ_ALT_JES2_INSPECTION check has found one or
more potential errors in IPL integrity on this system.

Explanation:  The Image Focus inspection has found one or more
potential errors with the IPL and System startup of this system.

System Action:  The check continues processing. There is no effect on
the system at this time.

Operator Response:  Report this item to the System Programmer.

System Programmer Response:  Examine the related Image Focus
inspection report.

Problem Determination:  Examine the related Image Focus messages
manual and any related IBM manuals.

Source:  Image Focus Messages

Reference Documentation:
Image Focus Messages
z/OS MVS Initialization and Tuning Reference

Automation:  None.

Check Reason:  VERIFY IPL INTEGRITY

END TIME: 09/28/2019 10:09:46.201961  STATUS: EXCEPTION-HIGH
```

4.2.3 The Inspection Log Dataset

To access the Inspection Log Dataset, use TSO/ISPF option 3.4.



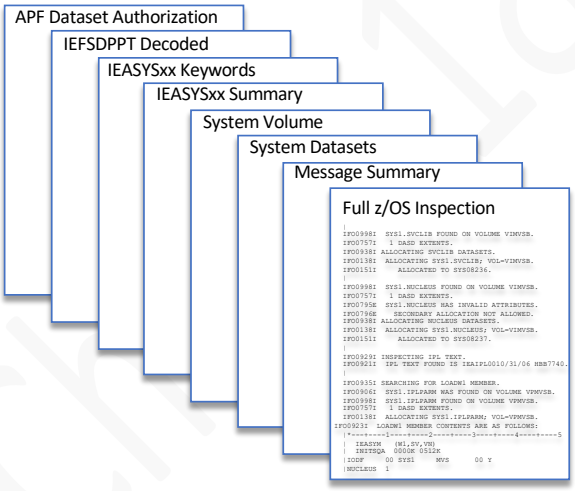
5 IPLCheck Reports

At the end of each Inspection Cycle, an Inspection Log is created and stored as a sequential MVS dataset using dataset qualifiers defined during IPLCheck application Installation. The log is a composite of reports designed to fulfill specific integrity and/or security reporting requirements. The Inspection Log Dataset contains the following Integrity Reports.

The IBM Health Checker for z/OS

IPLCheck - Report Library

IPLCheck z/OS System Integrity Report Library:



5.1 Viewer Primary Menu

The Viewer provides access to the Report Library and a centralized interactive focal point from which the state of all LPARs, Production or Alternate, their Inspection and Check status, can be reviewed simultaneously. Inspections and Checks are fully updatable on demand using panel commands.

The remainder of this section contains sample Viewer Panels, Worksheets and Reports. As needed, use PFK1 for panel explanation and other specific assistance.

5.1.1 Production Systems

When IPLCheck-Core is selected, a listing of all Production Systems is displayed.

```
        ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 13 of 13
                                                          -----Results-----
---------- IPLCheck Results Viewer - 13 Production Images Monitored -----------
Row Selection: Show IPLCheck Report Libraries Update the Image FOCUS Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect ---------Initialization Values---------- -Last Checked-
_ ____ ________ ___ ___ ____ ________ ________ ________ ________ ________ _____
S Numb --Name-- Rsl Msg Unit LoadParm HardWare LparName VmUserId yy/mm/dd hh:mm
_ 0001 $NEZA    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 01:00
_ 0002 $NEZB    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 02:00
_ 0003 $NEZC    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 03:00
_ 0004 $NEZD    WAR 061 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 19:05
_ 0005 $NEZ0    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 12:20
_ 0006 $NEZ2    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 17/09/21 14:52
_ 0007 $NEZ3    WAR 299 C3A1 B7002T.1 OHPF5805 TSYS     --NONE-- 19/09/21 04:00
_ 0008 $NEZ4    ERR 265 1000 0CE3W1.1 VM-TOKEN --NONE--  ETPGMQC 19/09/21 05:00
_ 0009 $NEZ5    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 19/09/21 12:45
_ 0010 $NEZ6    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 19/09/21 13:15
_ 0011 $NEZ7    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 19/09/21 13:18
_ 0012 $NEZ8    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 19/09/21 13:30
_ 0013 $NEZ9    WAR 243 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 19/09/21 14:49

Option ===>                                                Scroll ===> PAGE
```

5.1.2 Alternate Systems

When IPLCheck-Alt is selected, a listing of all Alternate Systems is displayed.

```
        ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 14
                                                          -----Results-----
---------- IPLCheck Results Viewer - 14 Alternate Images Monitored ------------
Row Selection: Show IPLCheck Report Libraries Update the Image FOCUS Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect ---------Initialization Values---------- -Last Checked-
_ 0001 $NEZA    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 00/00/00 00:00
```

5.1.3 Show IPLCheck Report Libraries

```
        ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 14
                                                          -----Results-----
---------- IPLCheck Results Viewer - 14 Alternate Images Monitored ------------
Row Selection: Show IPLCheck Report Libraries Update the Image FOCUS Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect ---------Initialization Values---------- -Last Checked-
S 0001 $NEZA    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 00/00/00 00:00
```

To display a Report Library, place an “S” on the command line preceding the target system and press enter. Note that the name of the system selected will be carried forward into the panels and worksheets that follow.

5.1.4 Update the Image FOCUS Inspection

```
        ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 14
                                                          -----Results-----
---------- IPLCheck Results Viewer - 14 Alternate Images Monitored ------------
Row Selection: Show IPLCheck Report Libraries Update the Image FOCUS Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect ---------Initialization Values---------- -Last Checked-
U 0001 $NEZA    WAR 063 1000 0CE3W1M1 VM-TOKEN --NONE--  ETPGM7Q 00/00/00 00:00
```

IPLCheck Image Inspections are run under the control of the Health Checker Framework. However, if an inspection appears to be out of date, it can be re-run by placing a “U” on the command line preceding the target system and pressing enter. The resulting Inspection Log will overwrite the previous Log Dataset. All Report Library entries associated with the target system are updated as the Inspection process completes.

5.1.4.1 Update the Image Inspection

```
                VUE 14 - IPLCheck Core - Inspection Results
 ----ICE 18.0----                                              -----Results-----
 ------------- ICE Results Viewer - 4 Alternate Systems Monitored --------------
 Row Selection: Show the Report Libraries Update the Image Inspection XAnalytics
 --- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
 - Line -System- Inspect ---------Initialization Values---------- -Last Checked-

 _ ____ ________ ___ ___ ____ ________ ________ ________ ________ ________ _____
 S Numb --Name-- Rsl Msg Unit LoadParm HardWare LparName VMUserId yy/mm/dd hh:mm
 _ 0001 NEZ1     NOT 052 1001 0CE3W1M1 VM-TOKEN NEZ1      ETPGM7Q 15/01/27 08:54
 _ 0002 S0W2     AOK 048 1002 0CE3W2M1 VM-TOKEN S0W2      ETPGM7Q 15/01/28 10:04
 _ 0003 S0W3     AOK 072 1003 0CE3W3M1 VM-TOKEN S0W3      ETPGM7Q 15/01/29 11:03
 _ 0004 S0W4     AOK 012 1004 0CE3W4M1 VM-TOKEN S0W4      ETPGM7Q 15/01/29 12:05
 ******************************** Bottom of data ********************************

                       '--------------------------'
                       |   OPSYS    *PROCESSING*   |
                       '--------------------------'
                        Performing Image Inspection

  Option ===>                                                 Scroll ===> PAGE
```

5.1.4.2 Updated Image Inspection Report

```
Menu  Utilities  Compilers  Help
_____________________________________________________________________________
BROWSE    PROBI1.IFOQUICK.INSPECT                  Line 00000000 Col 001 080
******************************** Top of Data ********************************
IFO1000I REPORT IS IPLCHECK VIEWER UPDATE DATE: 2019/09/29 TIME: 08:59:28.
IFO0765I  LICENSED TO NEWERA/STANDARD/IFO  (SITE EDITION).
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0727I  Image Focus 18.0
|
IFO0900I IPL REQUESTED FROM UNIT 0A80.
IFO0922I SUPPLIED LOADPARM IS 0A82XAM1.
IFO0901I  LOADPARM IODF UNIT=0A82 SPECIFIED.
IFO0901I  LOADPARM LOADXA SPECIFIED.
IFO0901I  LOADPARM IMSI=M SPECIFIED.
IFO0901I  LOADPARM IEANUC01 SPECIFIED.
IFO0712I  HWNAME --NONE-- SPECIFIED.
IFO0712I  LPARNAME --NONE-- SPECIFIED.
IFO0712I  VMUSERID ZOSNE1 SPECIFIED.
|
IFO0905I  IPL UNIT 0A80 IS VOLUME ZDRES1.
IFO0905I  IODF UNIT 0A82 IS VOLUME ZDSYS1.
IFO0611I  IPL UNIT ADDRESS: RUNNING SYSTEM=0A80; TARGET SYSTEM=0A80.
IFO0611I  IODF UNIT ADDRESS: RUNNING SYSTEM=0A82; TARGET SYSTEM=0A82.
Command ===>                                                Scroll ===> PAGE
```

5.1.5 IPLCore – XAnalytics

5.1.5.1 Cross System Image Analytics

The Cross System Analytics Worksheet is useful when comparing the inspection results of one image against all others defined to IPLCheck. To reveal the Name and its LoadParm, cursor under its Relative Image Position and Press Enter. For more inspection detail, select and element using the "S" Row Command.

```
                VUE 14 - IPLCheck Core - Image Analytics   Row 1 to 15 of 57
--NSIMVUE 0924--                                           ---Cross Image---
-------------- Cross System Image Analytics - 57 Unique Elements --------------
Row Selection: Show_Inspection_Detail_Across_All_Systems
- Row ------Inspected System Elements------ --- ----Relative Image Position----

_ ___ ______ ______________________ ______ __ ___ ___ ___ ___ ___ ___ ___ ___
S Num VolSer ------Datasets------ Member Sx Dif 001 002 003 004 005 006 007 008
_ 001 ------ non_specific________ IPLPRM -- <=> Aok War Aok Aok --- --- --- ---
_ 002 ZDSYS1 SYS1.IPLPARM________ NUCLST 00     Aok Aok Aok Aok --- --- --- ---
_ 003 ZDRES1 SYS1.NUCLEUS________ IEANUC 01     Aok Aok Aok Aok --- --- --- ---
_ 004 ZDRES1 SYS1.NUCLEUS________ IEANUC 21     Aok Aok Aok Aok --- --- --- ---
_ 005 ------ non_specific________ SCATDS --     Aok Aok Aok Aok --- --- --- ---
_ 006 ------ non_specific________ IODFDS -- <=> Aok War Aok Aok --- --- --- ---
_ 007 ------ non_specific________ PARMDS -- <=> Aok War Aok Aok --- --- --- ---
_ 008 ZDSYS1 USER.PARMLIB________ IEASYM XA     Aok --- --- --- --- --- --- ---
_ 009 ZDRES1 ADCD.Z113.PARMLIB___ IEASYS 00     Not Not Not Not --- --- --- ---
_ 010 ZDSYS1 USER.PARMLIB________ IEASYS WS     Not Not Not Not --- --- --- ---
_ 011 ZDSYS1 USER.PARMLIB________ IEASYS XA     Aok --- --- --- --- --- --- ---
_ 012 ZDRES1 ADCD.Z113.PARMLIB___ IEASVC 00     Aok Aok Aok Aok --- --- --- ---
_ 013 ZDSYS1 USER.PARMLIB________ PROG__ 01 <=> Aok War Aok Aok --- --- --- ---
_ 014 ZDRES1 ADCD.Z113.PARMLIB___ IEAFIX 00     Aok Aok Aok Aok --- --- --- ---
_ 015 ZDSYS1 USER.PARMLIB________ IEALPA 00     Aok Aok Aok Aok --- --- --- ---

Option ===>                                                 Scroll ===> CSR
```

5.1.5.2 Element Analytic Inspection Detail and Comparison

The Inspection Detail Worksheet shows a comparison of Inspection Results for the selected Image Element for all defined Images. To review Inspection findings related to an Element by Image/System, use the "V" Row Command.

```
                VUE 14 - ICE Viewer - Cross Image Inspection Row 1 to 4 of 4
--NSIMVUE 0924--                                           ---Cross Image---
------- 4 Images - Element Volser:ZDSYS1 Dsn(Mbr):USER.PARMLIB(PROG01) --------
Row Selection: Show_the_Message_Filter View_the_Element_Inspection_Findings
- Row --------Images Inspected------- ---------Image Element Findings----------

_ ___ ________ ____ ________ ________ ___ ___ ___ ___ _______ _______ ________
S Num -System- Unit LoadParm --Date-- Aok Err War Not TsoUser -Update- hh:mm:ss
_ 001 ADCD113_ 0A80 0A82XA.1 15/09/04 Aok             PHARL2_ 15/06/25 20:23:22
_ 002 BDCD113_ 0A80 0A82XB.1 15/07/30         War     PHARL2_ 15/06/25 20:23:22
_ 003 CDCD113_ 0A80 0A82XC.1 15/12/13 Aok             ADCDMST 15/07/05 10:42:13
_ 004 DDCD113_ 0A80 0A82XD.1 15/12/12 Aok             ADCDMST 15/07/05 10:42:13
****************************** Bottom of data ********************************


Option ===>                                                 Scroll ===> CSR
```

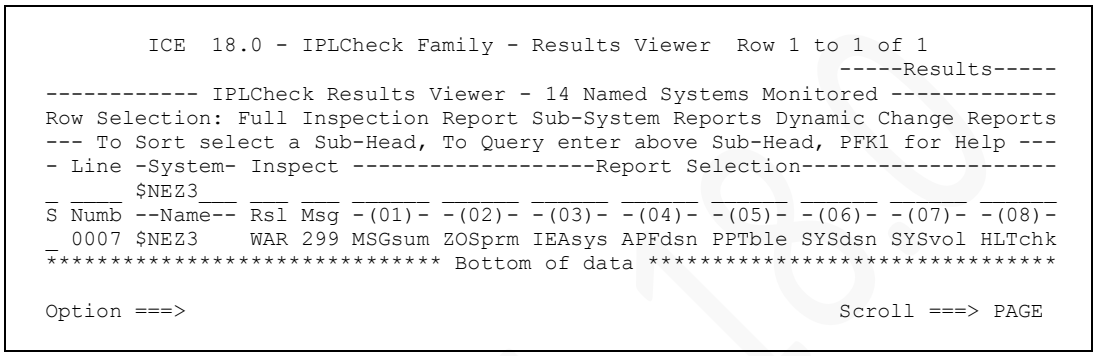
5.1.5.3 View Element Inspection Detail

The View provided is of the full set of Inspection Log Records created for the selected Element by Image/System. These records may be sorted and filtered. To filter for Inspection Errors, enter 'ERR' above 'Rsl Column' and press enter. Only Error records will be displayed.

```
               VUE 18.0 - Image Inspection - Message Filte Row 1 to 14 of 330
--NSIMVUE 0924--                                          --Messge Detail--
----- ICE Inspection Viewer - 330 Filter Records - Sysplex:IMAGE/BDCD113 ------
Row Selection: Full_Image_Inspection_Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Log Records-------------------
_ _____ _______ ___ ____________________________________________________________
S -Rec- --Key-- Rsl ------------------------------------------------------------
_ 00001 IFO0935 AOK SEARCHING FOR PROG01 MEMBER.
_ 00002 IFO0940 AOK  PROG01 FOUND IN PARMLIB(0) VOL=ZDSYS1;DSN=USER.PARMLIB.
_ 00003 IFO0675 AOK  PROG01 LAST CHANGED DATE=2019/09/29 TIME=20:23:22 USER=PHA
_ 00004 IFO0923 AOK  PROG01 MEMBER CONTENTS ARE AS FOLLOWS:
_ 00005 ------- --- |----+----1----+----2----+----3---TOP OF MEMBER---5----+---
_ 00006 ------- --- |APF FORMAT(DYNAMIC)
_ 00007 ------- --- |APF ADD
_ 00008 ------- --- |    DSNAME(SYS1.SHASLNKE)                                 V
_ 00009 ------- --- |APF ADD
_ 00010 ------- --- |    DSNAME(SYS1.SIEAMIGE)                                 V
_ 00011 ------- --- |APF ADD
_ 00012 ------- --- |    DSNAME(SYS1.MIGLIB)                                   V
_ 00013 ------- --- |APF ADD
_ 00014 ------- --- |    DSNAME(SYS1.SERBLINK)                                 V

Option ===>                                                Scroll ===> CSR
```

5.1.6 z/OS Inspection

The inspection of a targeted LPAR begins with the automatic discovery of the IPL Unit Address and LOADPARM. This information is passed to the Image FOCUS Inspection Server, which in turn validates it and begins the z/OS LPAR Inspection process. The Results of this "Virtual IPL" are found in the z/OS Inspection Report and are displayed and accessed via the interface panel shown below by placing the cursor under the "White Report Labels" and pressing enter.



In addition to these specific z/OS Inspection Reports, Sub-System and Dynamic Change Reports are optionally available. To access these optional reports, place an "S" or a "D" on the command line immediately preceding a named row and then press enter to display the associated report selection list.

The underlying Full Inspection Log, that contains the source data for all of the z/OS Inspection Reports, is displayed when you place "F" on the command line immediately preceding a named row and press enter.

5.1.7 z/OS Inspection Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ $NEZ3___ ___ ___ _____ _____ _____ _____ _____ _____ _____ _____
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0007 $NEZ3    WAR 299 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************

Option ===>                                                Scroll ===> PAGE
```

```
        ICE  18.0 - IPLCheck Family - Results Viewer Row 1 to 14 of 115
                                                              ---Inspections---
----------- Configuration Worksheet - 115 Image Inspection Domains ------------
Row Selection: Show Inspection Get Member History Compare Prior Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -Inspections- ---Last Update--- -------------Source ParmLib--------------
_ ___ ___ ______ __ ________ ________ ____________________________________ ______
S Num Rsl Domain Sx --User-- --Date-- -----------Dataset Names---------- Volume
_ 001 WAR START  -- -------- --/--/-- -----non_specific-----               ------
_ 002 AOK NUCLST SV IBMUSER  19/08/12 SYS1.IPLPARM                        VPMVSB
_ 003 AOK IEANUC 01 -------- --/--/-- SYS1.NUCLEUS                        VIMVSB
_ 004 WAR IEANUC 21 -------- --/--/-- SYS1.NUCLEUS                        VIMVSB
_ 005 AOK IEASYM W1 RAMON    19/01/21 LVL0.PARMLIB                        VTLVL0
_ 006 AOK IEASYM SV RALEY    16/10/09 SVTSC.PARMLIB                       VTMVSG
_ 007 AOK IEASYM VN RALEY    18/10/09 VENDOR.PARMLIB                      VPMVSD
_ 008 AOK IEASYS 00 TODD     17/07/15 LVL0.PARMLIB                        VTLVL0
_ 009 NOT IEASYS LV PHARL2   17/09/09 VENDOR.PARMLIB                      VPMVSD
_ 010 AOK IEASYS SV DPACK    18/12/03 SVTSC.PARMLIB                       VTMVSG
_ 011 WAR IEASYS VN IBMUSER  18/11/26 VENDOR.PARMLIB                      VPMVSD
_ 012 AOK IEASVC I1 DPACK    17/01/07 SVTSC.PARMLIB                       VTMVSG
_ 013 AOK IEASVC 66 FLEMING  17/07/17 SVTSC.PARMLIB                       VTMVSG
_ 014 NOT PROG   00 PKRUTZA  18/12/08 LVL0.PARMLIB                        VTLVL0
_

Option ===>                                                Scroll ===> PAGE
```

5.1.8 z/OS Inspection Log

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ $NEZ3___ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
F 0007 $NEZ3    WAR 299 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************


Option ===>                                                  Scroll ===> PAGE
```

```
|
IFO0998I  SYS1.SVCLIB FOUND ON VOLUME VIMVSB.
IFO0757I   1 DASD EXTENTS.
IFO0938I ALLOCATING SVCLIB DATASETS.
IFO0138I  ALLOCATING SYS1.SVCLIB; VOL=VIMVSB.
IFO0151I     ALLOCATED TO SYS08236.
|
IFO0998I  SYS1.NUCLEUS FOUND ON VOLUME VIMVSB.
IFO0757I   1 DASD EXTENTS.
IFO0795E  SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
IFO0796E    SECONDARY ALLOCATION NOT ALLOWED.
IFO0938I ALLOCATING NUCLEUS DATASETS.
IFO0138I  ALLOCATING SYS1.NUCLEUS; VOL=VIMVSB.
IFO0151I     ALLOCATED TO SYS08237.
|
IFO0929I INSPECTING IPL TEXT.
IFO0921I  IPL TEXT FOUND IS IEAIPL0010/31/06 HBB7740.
|
IFO0935I SEARCHING FOR LOADW1 MEMBER.
IFO0906I  SYS1.IPLPARM WAS FOUND ON VOLUME VPMVSB.
IFO0998I  SYS1.IPLPARM FOUND ON VOLUME VPMVSB.
IFO0757I   1 DASD EXTENTS.
IFO0138I  ALLOCATING SYS1.IPLPARM; VOL=VPMVSB.
IFO0151I     ALLOCATED TO SYS08238.
IFO0940I  LOADW1 FOUND IN IPLPARM(0) VOL=VPMVSB;DSN=SYS1.IPLPARM.
IFO0675I  LOADW1 LAST CHANGED DATE=2019/01/28 TIME=12:44:30 USER=RAMON.
IFO0923I  LOADW1 MEMBER CONTENTS ARE AS FOLLOWS:
|----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
|*---+----1----+----2----+----3----+----4----+----5
|  IEASYM   (W1,SV,VN)
|  INITSQA  0000K 0512K
|IODF     00 SYS1     MVS      00 Y
|NUCLEUS  1
|NUCLST   SV N
|SYSCAT   VPMVSB113CMASTERV.CATALOG                          CATALOG
|SYSPARM  (00,LV,SV,VN)
|SYSPLEX  SVSCPLEX
|PARMLIB  VENDOR.PARMLIB
|PARMLIB  SVTSC.PARMLIB
|PARMLIB  LVL0.PARMLIB
|PARMLIB  SYS1.PARMLIB
|----+----1----+----2----+----3-BOTTOM OF MEMBER--5----+----6----+----7----+----
```

5.1.9 Message Summary

Inspection results are reported using unique Image FOCUS IFO message numbers. Each number has an associated suffix as its last position. A suffix of "I" indicates an information message related to the discovery and processing of a component, "E" indicates a potential configuration *ERROR* has been detected, "W" is a *WARNING* that indicates that a resource may be incorrectly configured, "N" provides *NOTICE* of findings that may impact system integrity, duplication, obsolescence or system capacity limitations.

The Message Summary extracts ERROR, WARNING and NOTICE messages from the full report and presents them in summary format.

5.1.10 Message Summary Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                            -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
******************************** Bottom of data ********************************
```

```
        ICE  18.0 - IPLCheck Family - Results View Row 1 to 15 of 243
                                                          -Messages Summary-
---- IPLCheck Results Viewer - 243 Conditional z/OS Messages - System:NEZ1 ----
Row Selection: Show Image Inspection Details Compare with Prior Report Baseline
- Rec --Inspection Result-- - ------------Inspection Message Text--------------
_ ___ ___ _____ _______ ___ _ ____________________Filtered_____________________
S Num Typ -Rec- --Key-- Rsl F --------------------Filtered---------------------
_ 001 ZOS 00029 IFO0691 WAR - SYS1.RACFPRM1 HAS NON-STANDARD ATTRIBUTES.
_ 002 ZOS 00030 IFO0692 WAR - DSORG SHOULD BE PSU; NOT PS.
_ 003 ZOS 00043 IFO0795 WAR < SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
_ 004 ZOS 00044 IFO0796 WAR < SECONDARY ALLOCATION NOT ALLOWED.
_ 005 ZOS 00139 IFO0657 WAR - CURRENT ACCESS=UPDATE; REQUIRED ACCESS=READ.
_ 006 ZOS 00142 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 007 ZOS 00145 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 008 ZOS 00239 IFO0725 NOT - OBSOLETE PARAMETER APG IGNORED.
_ 009 ZOS 00242 IFO0651 NOT - CMB= IGNORED/REAL IPL OF Z990/NEWER CPC.
_ 010 ZOS 00386 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 011 ZOS 00391 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 012 ZOS 00396 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 013 ZOS 00401 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 014 ZOS 00406 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.
_ 015 ZOS 00411 IFO0687 WAR - DATASET NOT PROTECTED BY A PROFILE.

Option ===>                                              Scroll ===> PAGE
```

5.1.11 The Message Summary Report

```
|
IFO0678I  MESSAGE SUMMARY REPORT.
IFO0426I  EFFECTIVE MESSAGE FILTERING TABLE FOLLOWS:
|----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
|IFO0795E(W)
|IFO0796E(W)
|IFO0909E(W)
|IFO0983E(W)
|----+----1----+----2----+----3-BOTTOM OF MEMBER--5----+----6----+----7----+----
|IFO0795W< SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
|IFO0796W<   SECONDARY ALLOCATION NOT ALLOWED.
|IFO0725N  OBSOLETE PARAMETER APG IGNORED.
|IFO0651N  CMB= VALUE WILL BE IGNORED ON A REAL IPL OF A Z990 OR NEWER PROCESSOR
|IFO0964W  SMS - MULTIPLE PARAMETERS NOT ALLOWED.
|IFO0909W<ERROR IN ABOVE STATEMENT AT OR NEAR COLUMN 1.
|IFO0769N  TCPIP.SEZAMIG NOT FOUND ON VOLUME VTMVSC.
|IFO2100N  *INTEGRITY* APF DATASETS SHOULD NOT BE DEFINED IF THEY DO NOT EXIST.
|IFO0768N  SYS1.SIATLPA BYPASSED; VOLUME VTMVAB NOT MOUNTED.
|IFO0768N  SYS1.VTAMLIB BYPASSED; VOLUME VTMVAB NOT MOUNTED.
|IFO0768N  SYS1.CSSLIB BYPASSED; VOLUME VTMVSH NOT MOUNTED.
|IFO0768N  SYS1.CSSLIB BYPASSED; VOLUME VTMVSH NOT MOUNTED.
|IFO0749W  SYS1.SIEALNKE IGNORED; NOT ALLOWED.
|IFO0749W  SYS1.SIEAMIGE IGNORED; NOT ALLOWED.
|IFO0632N  APF ENTRY FOR SYS1.LINKLIB ON VOLUME VIMVSB IGNORED; ALREADY ADDED BY
|IFO0786W  UNCLOSED COMMENT DETECTED.
|IFO0786W  UNCLOSED COMMENT DETECTED.
|IFO0987W  MEMBER DATA AFTER LOGICAL END OF FILE.
|IFO0615W  UNBALANCED COMMENTS DETECTED.
|IFO0413N  SYS1.SBDTLPA/VTMVSC IS A DUPLICATE LPALST ENTRY.
|IFO0983W<JCL ERROR IN PROCEDURE TCPPT.
|IFO0983W<JCL ERROR IN PROCEDURE PRRTEST.
|IFO0615W  UNBALANCED COMMENTS DETECTED.
|IFO0746I JES2 PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I HCKR PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I RESOLVER PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I TCPIP PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I TELNET PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CICS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CICS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I LOAD PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I MBRS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CSDS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CUST1 PROCESS COMPLETED SUCCESSFULLY.
|
```

In addition, the message summary also provides a recap of site defined Message Management actions. If such actions are defined in NSEMSG00, the full member is presented at the top of the Message Summary. Messages impacted by the changes defined are further highlighted in the report by the use of the following action characters ">", "<" and "=". When ">" is used, it denotes that the message severity has been increased, "<" indicates the severity has been reduced, and "=" denotes the severity remains unchanged but was flagged to indicate the desire to have the message presented in the message summary.

5.1.12 System Datasets

During the inspection process, as the Inspection Server traverses the IPL Path, it identifies all System Datasets and gathers their related statistics. The System Dataset Report summarizes the dataset by Dataset Class SYSTEM, LPALST, LNKLST, FLPA, MLPA and PROCLIB.

5.1.13 System Dataset Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************
```

```
      ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 193
                                                          -System Datasets-
------- Configuration Worksheet - 193 Discovered System Datasets - NEZ1 -------
Row Selection: Show the Full Dataset Report Compare with Prior Dataset Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -------------------System Datasets-------------------- ---Usages--- -ESM-
_ ___ ___ ___ _____________Name_____________ ______ ___ ____ ___ ___ ____ _____
S Num Cls Org ------------Name------------- Volume SMS Type Trk Dir Mbrs -Acs-
_ 001 SYS  PS SYS1.RACFPRM1                 VPMVSH  NO  SEQ 084 --- ----  READ
_ 002 SYS  PO SYS1.SVCLIB                   VIMVSB  NO  PDS 033 033 0000  READ
_ 003 SYS  PO SYS1.NUCLEUS                  VIMVSB  NO  PDS 071 071 0005  READ
_ 004 SYS  PO SYS1.IPLPARM                  VPMVSB  NO  PDS 050 050 0000  READ
_ 005 SYS  AM SYS1.IODF00                   VPMVSB  NO VSAM --- --- ----  READ
_ 006 SYS  PO VENDOR.PARMLIB                VPMVSD  NO  PDS 018 018 0000 UPDAT
_ 007 SYS  PO SVTSC.PARMLIB                 VTMVSG  NO  PDS 028 028 0000 -----
_ 008 SYS  PO LVL0.PARMLIB                  VTLVL0  NO  PDS 052 052 0001 -----
_ 009 SYS  PO SYS1.PARMLIB                  VIMVSB  NO  PDS 002 002 0000  READ
_ 010 SYS PSU SYS1.NEZ1.LOGREC              VPMVSB  NO  SEQ 100 --- ----  READ
_ 011 SYS  AM PAGE.NEZ1.PLPA.DATA           VPPAGA  NO VSAM --- --- ---- -----
_ 012 SYS  AM PAGE.NEZ1.COMMON1.DATA        VPPAGI  NO VSAM --- --- ---- -----
_ 013 SYS  AM PAGE.NEZ1.LOCALA.DATA         VPPAGA  NO VSAM --- --- ---- -----
_ 014 SYS  AM PAGE.NEZ1.LOCALB.DATA         VPPAGB  NO VSAM --- --- ---- -----

Option ===>                                                 Scroll ===> PAGE
```

5.1.14 The Dataset Report

```
|
IFO0797I DATASET REPORT.
|
IFO0798I  SYSTEM DATASETS.
|
SYS1.SVCLIB                                    VOL=VIMVSB  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000003 SEC=000000015 USED=000000001 %USED=033
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=06144 DIR:TOT=000003 USED=000001 %USED=033
MEMBERS=000004
|
SYS1.NUCLEUS                                   VOL=VIMVSB  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000675 SEC=000000005 USED=000000661 %USED=097
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=06144 DIR:TOT=000140 USED=000099 %USED=070
MEMBERS=000581
|
SYS1.IPLPARM                                   VOL=VPMVSB  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000015 SEC=000000001 USED=000000002 %USED=013
DSORG=PO  RECFM=FB   LRECL=00080 BLKZ=08000 DIR:TOT=000010 USED=000004 %USED=040
MEMBERS=000023
|
IFO0798I  LPALST DATASETS.
|
VENDOR.LPALIB                                  VOL=VPMVSD  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000150 SEC=000000001 USED=000000002 %USED=001
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=23200 DIR:TOT=000050 USED=000001 %USED=002
MEMBERS=000000
|
SVTSC.LPALIB                                   VOL=VTMVSG  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000002 SEC=000000001 USED=000000001 %USED=050
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=23200 DIR:TOT=000005 USED=000001 %USED=020
MEMBERS=000001
|
IFO0798I  LNKLST DATASETS.
|
VENDOR.LINKLIB                                 VOL=VPMVSD  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000300 SEC=000000001 USED=000000002 %USED=000
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=23200 DIR:TOT=000060 USED=000001 %USED=001
MEMBERS=000000
|
SYS1.MIGLIB                                    VOL=VTMVSC  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000001500 SEC=000000015 USED=000001015 %USED=067
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=06144 DIR:TOT=000400 USED=000305 %USED=076
MEMBERS=001811
```

5.2 System Volume

During the inspection process, as the Inspection Server traverses the IPL Path, it identifies all System Volumes and gathers their related statistics. The DASD Volume Report contains entries for each volume discovered.

5.2.1 The System Volume Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************
```

```
        ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 69
                                                              --System Volume--
-------- Configuration Worksheet - 69 Discovered System Volumes - NEZ1 --------
Row Selection: Show the System Volume Report Compare with Prior Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec ------Volumes------ -Mgmts- ---Used---- ----Free Space----- ----Index----
_ ___ ______ ____ _______ ___ ___ ___ ___ ___ _______ _______ ___ ___ ___ _____
S Num Serial Unit -Types- EAV SMS Tks Vtc Cyl -Cyldr- -Track- Ext NDX Act Frags
_ 001 VDAPSD 183F    3390  NO  NO 031 N/A 007 0000408 0006120 061 YES YES 00000
_ 002 VDAUTG 1805    3390  NO  NO 074 N/A 006 0000167 0002505 025 YES YES 00007
_ 003 VDCTGE 182E    3390  NO  NO 090 N/A 006 0000054 0000814 008 YES YES 00000
_ 004 VDDFHC 0BEE    3390  NO  NO 077 N/A 016 0000416 0006240 082 YES YES 00071
_ 005 VDDFHD 182A    3390  NO  NO 048 N/A 018 0001016 0015240 230 YES YES 00098
_ 006 VDFEKA 1837    3390  NO  NO 034 N/A 003 0000326 0004900 049 YES YES 00000
_ 007 VDIELI 1829    3390  NO  NO 079 N/A 003 0000030 0000460 010 YES YES 00183
_ 008 VDIGYF 03C3    3390  NO  NO 080 N/A 003 0000018 0000270 002 YES YES 00070
_ 009 VDNETE 1803    3390  NO  NO 096 N/A 006 0000022 0000330 003 YES YES 00033
_ 010 VDPORB 184D    3390  NO  NO 092 N/A 004 0000043 0000655 006 YES YES 00000
_ 011 VIMVSB 1000    3390  NO  NO 081 N/A 001 0000045 0000675 015 YES YES 00236
_ 012 VPDFHC 0BF0    3390  NO  NO 025 N/A 008 0000370 0005557 055 YES YES 00000
_ 013 VPDFHD 182C    3390  NO  NO 017 N/A 007 0000373 0005603 074 YES YES 00070
_ 014 VPD81B 0D44    3390  NO  NO 092 N/A 005 0000022 0000330 012 YES YES 00401
_

Option ===>                                                Scroll ===> PAGE
```

5.2.2 The System Volume Report

```
|
IFO0633I DASD VOLUME REPORT.
|
VDAPSC
UNIT=039E  TYPE=3390  EAV=NO   SMS=NO  DSCBS/TRK=0000050    TRKS/CYL=0000015
TOTAL: VOLUME TRKS=000007500  VTOC TRKS=000000015  DSCBS=000000750
USED : VOLUME TRKS=000003149  VTOC TRKS=N/A        DSCBS=000000056
%USED: VOLUME TRKS=041        VTOC TRKS=N/A        DSCBS=007
FREE SPACE  :CYLS=0000289 TRKS=000000016 TOT TRKS=000004351 EXTENTS=0000004
LARGEST FREE:CYLS=0000289 TRKS=000000000 TOT TRKS=000004335
INDEXED VTOC=YES,ACTIVE   FRAGMENTATION INDEX=0000003
|
VDAUTE
UNIT=0BE8  TYPE=3390  EAV=NO   SMS=NO  DSCBS/TRK=0000050    TRKS/CYL=0000015
TOTAL: VOLUME TRKS=000009750  VTOC TRKS=000000015  DSCBS=000000750
USED : VOLUME TRKS=000007085  VTOC TRKS=N/A        DSCBS=000000053
%USED: VOLUME TRKS=072        VTOC TRKS=N/A        DSCBS=007
FREE SPACE  :CYLS=0000177 TRKS=000000010 TOT TRKS=000002665 EXTENTS=0000003
LARGEST FREE:CYLS=0000177 TRKS=000000000 TOT TRKS=000002655
INDEXED VTOC=YES,ACTIVE   FRAGMENTATION INDEX=0000004
|
VDAPSC
UNIT=039E  TYPE=3390  EAV=NO   SMS=NO  DSCBS/TRK=0000050    TRKS/CYL=0000015
TOTAL: VOLUME TRKS=000007500  VTOC TRKS=000000015  DSCBS=000000750
USED : VOLUME TRKS=000003149  VTOC TRKS=N/A        DSCBS=000000056
%USED: VOLUME TRKS=041        VTOC TRKS=N/A        DSCBS=007
FREE SPACE  :CYLS=0000289 TRKS=000000016 TOT TRKS=000004351 EXTENTS=0000004
LARGEST FREE:CYLS=0000289 TRKS=000000000 TOT TRKS=000004335
INDEXED VTOC=YES,ACTIVE   FRAGMENTATION INDEX=0000003
|
VDAUTE
UNIT=0BE8  TYPE=3390  EAV=NO   SMS=NO  DSCBS/TRK=0000050    TRKS/CYL=0000015
TOTAL: VOLUME TRKS=000009750  VTOC TRKS=000000015  DSCBS=000000750
USED : VOLUME TRKS=000007085  VTOC TRKS=N/A        DSCBS=000000053
%USED: VOLUME TRKS=072        VTOC TRKS=N/A        DSCBS=007
FREE SPACE  :CYLS=0000177 TRKS=000000010 TOT TRKS=000002665 EXTENTS=0000003
LARGEST FREE:CYLS=0000177 TRKS=000000000 TOT TRKS=000002655
INDEXED VTOC=YES,ACTIVE   FRAGMENTATION INDEX=0000004
```

5.3 IEASYSxx Keywords

During the inspection process, as the Inspection Server traverses the IPL Path, it identifies all prevailing IEASYSxx ParmLib Members and consolidates their content into a final set of IEASYSxx keywords and values. The IEASYSxx Keyword Report provides a listing of all available IEASYSxx keywords noting their final or default value. The source IEASYSxx member that prevailed in the consolidation is noted as is its level in the ParmLib Concatenation.

5.3.1 The IEASYSxx Keyword Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************
```

```
       ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 14 of 86
                                                          -IEASYS Keywords-
---------------- Configuration Worksheet - 75 IEASYS Keywords -----------------
Row Selection: Show a Prevailing Member List Compare with Prior Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec --Keywords-- ------------Director and Parameter------------- ---Source---
_ ___ ___ ________ ________________________________________________ ________ ___
S Num Typ --Name-- ---------------Keyword Values----------------- -Member- Cat
_ 001 DIR ALLOC    *DEFAULT*                                       -------- ---
_ 002 DIR APF      *DEFAULT*                                       -------- ---
_ 003 DIR AUTOR    *NOTUSED*                                       -------- ---
_ 004 DIR AXR      *DEFAULT*                                       -------- ---
_ 005 PRM CEA      *DEFAULT*                                       -------- ---
_ 006 PRM CEE      *DEFAULT*                                       -------- ---
_ 007 DIR CLOCK    SV                                              IEASYSLV 000
_ 008 PRM CLPA     *SPECIFIED*                                     -------- ---
_ 009 PRM CMB      UNITR,COMM,GRAPH,CHRDR                          IEASYSLV 000
_ 010 DIR CMD      J2,00,LV,LW,SV,VN,61                            IEASYSSV 001
_ 011 DIR CON      00                                              IEASYSLV 000
_ 012 DIR COUPLE   SV                                              IEASYSLV 000
_ 013 PRM CSA      4500,300000                                     IEASYSSV 001
_ 014 PRM CSCBLOC  ABOVE                                           IEASYSLV 000
_

 Option ===>                                                Scroll ===> PAGE
```

5.3.2 The IEASYSxx Keyword Report

```
|
IFO0619I IEASYSXX KEYWORD REPORT.
KEYWORD- ---------------------- OPERAND ----------------------- -MEMBER- CONCAT
ALLOC    *DEFAULT*
APF      *DEFAULT*
AXR      *DEFAULT*
CEE      *DEFAULT*
CLOCK    SV                                                     IEASYSLV    2
CLPA     *SPECIFIED*
CMB      UNITR,COMM,GRAPH,CHRDR                                 IEASYSLV    2
CMD      J2,00,LV,LW,SV,VN,61                                   IEASYSSV    1
CON      00                                                     IEASYSLV    2
COUPLE   SV                                                     IEASYSLV    2
CSA      4500,300000                                            IEASYSSV    1
CSCBLOC  ABOVE                                                  IEASYSLV    2
CVIO     *NOT SPECIFIED*
DEVSUP   SV                                                     IEASYSLV    2
DIAG     *DEFAULT*
DRMODE   *DEFAULT*
DUMP     DASD                                                   IEASYSVN    0
FIX      00,RF                                                  IEASYSLV    2
GRS      TRYJOIN                                                IEASYSLV    2
GRSCNF   00                                                     IEASYSLV    2
GRSRNL   SV                                                     IEASYSLV    2
HVSHARE  *DEFAULT*
IKJTSO   *DEFAULT*
IOS      TC                                                     IEASYSLV    2
LFAREA   *DEFAULT*
LICENSE  *DEFAULT*
LNK      *DEFAULT*
LNKAUTH  LNKLST                                                 IEASYSLV    2
LOGCLS   C                                                      IEASYSLV    2
LOGLMT   008000                                                 IEASYSLV    2
LOGREC   SYS1.NEZ1.LOGREC                                       IEASYSLV    2
LPA      00,60,65,DE,ID,IQ                                      IEASYSSV    1
MAXCAD   *DEFAULT*
MAXUSER  300                                                    IEASYSLV    2
MLPA     RF,I5,ID,RX                                            IEASYSSV    1
MSTRJCL  SV                                                     IEASYSLV    2
NONVIO   *DEFAULT*
```

5.3.3 IEASYSxx Summary Report

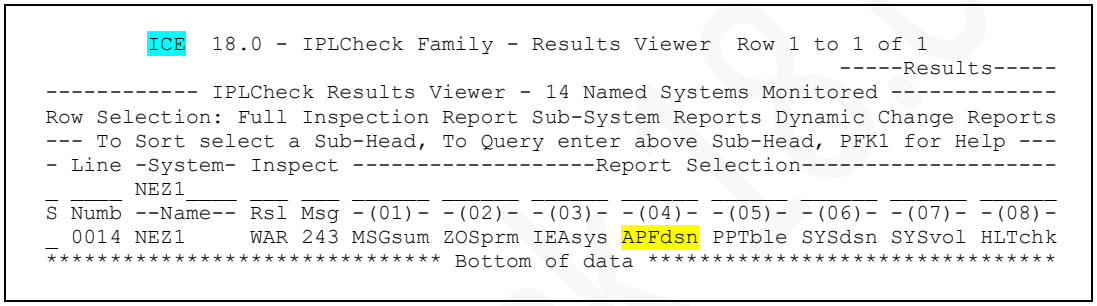
During the inspection process, as the Inspection Server traverses the IPL Path, it identifies all prevailing IEASYSxx ParmLib Members and consolidates their content into a final set of IEASYSxx keywords and values. Certain IEASYSxx keywords, sometimes called *DIRECTORS*, and their *SUFFIX VALUES*, are identified and used to determine the fully qualified name of the *PREVAILING* ParmLib Members. The results of the Inspection of these configuration members, their location in the ParmLib Concatenation, date and time and user of last change, are detailed in the IEASYSxx Summary.

```
|
IFO0609I IEASYSXX SUMMARY REPORT.
-MEMBER-  SPEC.BY  NOTICES WARNINGS ERRORS CONCAT ----- CHANGED -----  USERID
IEASVCI9 IEASYSSV                             1    2019/10/17 12:26:56  DPACK
IEASVC65 IEASYSSV                             1    2019/08/14 16:07:48  FLEMING
PROG00   IEASYSVN     N                       2    2019/06/18 08:01:18  RAMON
PROGVN   IEASYSVN     N                       0    2019/02/22 10:59:58  PHARL2
PROG52   IEASYSVN     N                       2    2019/08/07 11:27:31  TODD
PROG65   IEASYSVN     N                       1    2019/08/14 16:19:22  FLEMING
PROGJ3   IEASYSVN                             2    2019/08/04 11:46:40  RAMON
PROGAA   IEASYSVN     N                       2    2017/11/06 10:16:21  RAMON
PROGDB   IEASYSVN                             1    2017/10/25 09:26:17  DPACK
PROGMS   IEASYSVN                             1    2019/07/27 15:56:07  IBMUSER
PROGI9   IEASYSVN     N                       1    2017/10/17 12:29:07  DPACK
PROGC7   IEASYSVN     N                       1    2017/10/17 12:19:30  DPACK
PROGFM   IEASYSVN                             1    2017/10/29 10:49:15  IBMUSER
PROGID   IEASYSVN                             1    2017/10/29 13:50:07  IBMUSER
PROGWD   IEASYSVN                             1    2017/10/31 12:06:00  SVTSCU
PROGSY   IEASYSVN                             2    2019/04/04 19:45:45  RALEY
PROGLA   IEASYSVN                             2    2017/10/09 22:36:14  RALEY
PROGLB   IEASYSVN               W             2    2019/02/21 15:30:21  PKRUTZA
PROGMC   IEASYSVN                             2    2017/12/12 14:57:22  PKRUTZA
PROGMD   IEASYSVN                             2    2017/12/13 13:44:53  PKRUTZA
PROGLE   IEASYSVN                             2    2017/12/12 14:56:37  PKRUTZA
PROGLF   IEASYSVN                             1    2017/10/29 10:48:16  IBMUSER
PROGLI   IEASYSVN                             1    2017/10/29 15:54:18  IBMUSER
PROGLG   IEASYSVN                             2    2017/12/12 14:57:11  PKRUTZA
PROGLJ   IEASYSVN                             2    2019/03/26 18:16:49  PKRUTZA
PROGLM   IEASYSVN                             2    2019/12/12 09:33:38  RAMON
PROGLN   IEASYSVN                             2    2017/11/06 10:36:45  RAMON
PROGLQ   IEASYSVN                             1    2019/08/14 16:15:22  FLEMING
PROGD9   IEASYSVN                             1    2017/10/17 12:31:37  DPACK
PROGB7   IEASYSVN                             1    2017/10/17 12:19:09  DPACK
PROGGY   IEASYSVN                             1    2017/10/23 16:55:25  SVTSCU
PROGIQ   IEASYSVN                             1    2017/10/24 13:46:48  SVTSCU
PROGEL   IEASYSVN                             1    2017/10/24 14:14:56  IBMUSER
PROGL9   IEASYSVN                             2    2019/04/04 19:56:02  RALEY
IEAFIX00 IEASYSLV                             2    2019/06/02 11:35:00  WALL
IEAFIXRF IEASYSLV                             2    2019/06/17 15:46:26  PKRUTZA
IEALPARF IEASYSSV               W             2    2017/12/05 11:24:30  TODD
```

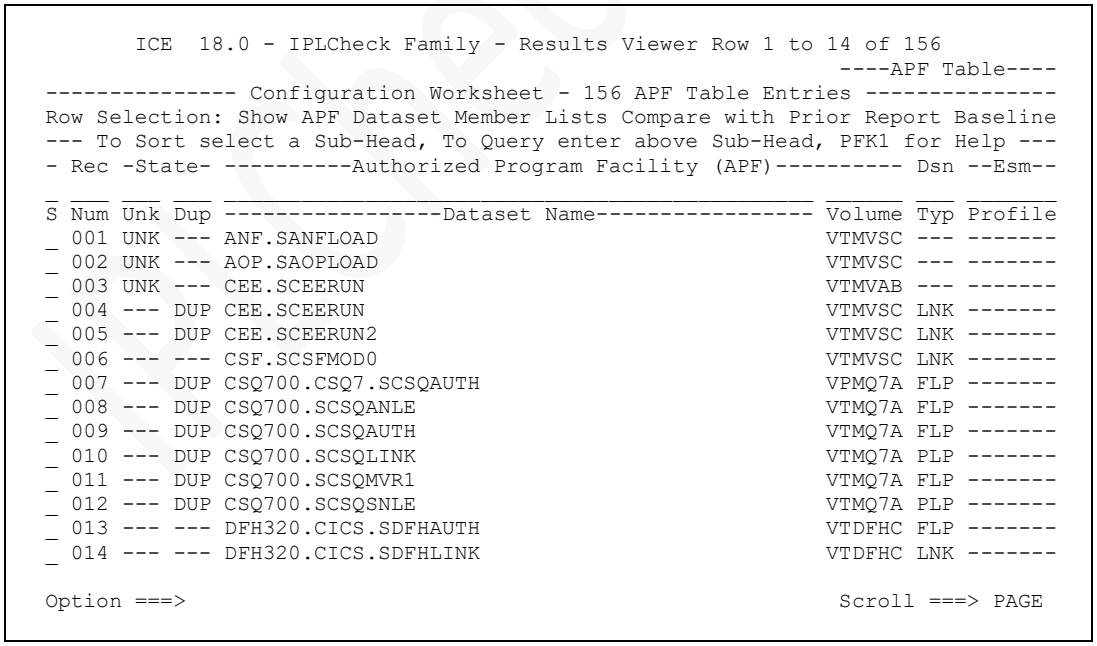
5.4 APF Dataset Authorization

During the inspection process, as the Inspection Server traverses the IPL Path, it identifies all System Datasets. Many, if not all, of these datasets will require APF (Authorized Program Facility) Authorization. Because z/OS is not fully active at the time the APF Table is loaded into memory, it is unable to determine if APF Dataset requests are, in fact, valid. The APF Dataset Authorization Report displays the status of each Dataset request noting VOLUME, EXISTENCE, DUPLICATION and DATASET TYPE. Unlike Image FOCUS, IPLCheck does not report a dataset's access profile.

5.4.1 The APF Dataset Worksheet



```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ******************************
```



```
       ICE  18.0 - IPLCheck Family - Results Viewer Row 1 to 14 of 156
                                                          ----APF Table----
--------------- Configuration Worksheet - 156 APF Table Entries ---------------
Row Selection: Show APF Dataset Member Lists Compare with Prior Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -State- ----------Authorized Program Facility (APF)---------- ------ Dsn --Esm--
_ ___ ___ ___ ____________________________________________________ ______ ___ _______
S Num Unk Dup -----------------Dataset Name----------------- Volume Typ Profile
_ 001 UNK --- ANF.SANFLOAD                                    VTMVSC --- -------
_ 002 UNK --- AOP.SAOPLOAD                                    VTMVSC --- -------
_ 003 UNK --- CEE.SCEERUN                                     VTMVAB --- -------
_ 004 --- DUP CEE.SCEERUN                                     VTMVSC LNK -------
_ 005 --- DUP CEE.SCEERUN2                                    VTMVSC LNK -------
_ 006 --- --- CSF.SCSFMOD0                                    VTMVSC LNK -------
_ 007 --- DUP CSQ700.CSQ7.SCSQAUTH                            VPMQ7A FLP -------
_ 008 --- DUP CSQ700.SCSQANLE                                 VTMQ7A FLP -------
_ 009 --- DUP CSQ700.SCSQAUTH                                 VTMQ7A FLP -------
_ 010 --- DUP CSQ700.SCSQLINK                                 VTMQ7A PLP -------
_ 011 --- DUP CSQ700.SCSQMVR1                                 VTMQ7A FLP -------
_ 012 --- DUP CSQ700.SCSQSNLE                                 VTMQ7A PLP -------
_ 013 --- --- DFH320.CICS.SDFHAUTH                           VTDFHC FLP -------
_ 014 --- --- DFH320.CICS.SDFHLINK                           VTDFHC LNK -------

Option ===>                                                   Scroll ===> PAGE
```

5.4.2 The APF Summary Report

```
|
IFO0693I APF SUMMARY REPORT       (ULPMF: U-USER L-LNKLST P-PLPA M-MLPA F-FLPA)
---DATASET NAME ---------------------------- -VOL-- NODSN DUP ULPMF   -SECURITY
ADB710.SADBLINK                              VTUT8A           U
ANF.SANFLOAD                                 VTMVSC    Y
AOP.SAOPLOAD                                 VTMVSC    Y
CEE.SCEERUN                                  VTMVAB    Y
CEE.SCEERUN                                  VTMVSC             L
CEE.SCEERUN                                  VTMVSF    Y
CEE.SCEERUN2                                 VTMVSI    Y
CICSTS12.CICS.SDFHAUTH                       VTTS2A    Y
CICSTS12.CICS.SDFHLINK                       VTTS2A    Y
CICSTS12.CICS.SDFHLPA                        VTTS2A    Y
COB2140.COB2CICS.MODLIB                      VTCOMA    Y
CSF.SCSFMOD0                                 VTMVSC             L
CSQ531.SCSQANLE                              VTM53A             L
CSQ531.SCSQAUTH                              VTM53A             L
CSQ531.SCSQLINK                              VTM53A             L
CSQ531.SCSQMVR1                              VTM53A             L
CSQ531.SCSQSNLE                              VTM53A             L
CSQ600.CSQ6.SCSQAUTH                         VPMQ6A           U
CSQ600.SCSQANLE                              VTMQ6A           U
CSQ600.SCSQAUTH                              VTMQ6A           U
CSQ600.SCSQLINK                              VTMQ6A             P
CSQ600.SCSQMVR1                              VTMQ6A           U
CSQ600.SCSQSNLE                              VTMQ6A           U
DFH320.CICS.SDFHAUTH                         VTDFHC           U
DFH320.CICS.SDFHLINK                         VTDFHC            L
DFH320.CICS.SDFHLOAD                         VTDFHC           U
DFH320.CICS.SDFHLPA                          VTDFHC             P
DFH320.CICS.SDFJAUTH                         VTDFHC           U
DFH320.CICS.SEYUAUTH                         VTDFHC    Y
DFH320.CICS.SEYULINK                         VTDFHC    Y
DFH320.CICS.SEYULPA                          VTDFHC    Y
DIT130.SDITMOD1                              VTDITA             L
DSN410.SDXRRESL                              VTD41A    Y
DSN510.SDSNEXIT                              VPD51B    Y
DSN510.SDSNLINK                              VTD51A    Y
DSN510.SDSNLOAD                              VTD51A    Y
DSN510.SDXRRESL                              VTD51A    Y
```

5.5 IEFSDPPT Decoded

During the inspection process, as the Inspection Server traverses the IPL Path, it identifies the location of the IEFSDPPT Module. This module, which falls within the scope of the IBM z/OS Integrity Statement, contains encoded values that affect the operation of the Program Property Table (PPT) and possibly the security provided by the External Security Manager (ESM). This report decodes the Module presenting its contents in a format similar to that used to code the SCHEDxx ParmLib Member.

5.5.1 The Program Properties Worksheet

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
******************************* Bottom of data ********************************
```

```
        ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 118
                                                          -----PPTable-----
-------- Configuration Worksheet - 118 Program Property Table Entries ---------
Row Selection: Show the PPTable Full Source Compare with Prior Dataset Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -----Module----- --------Proposed Program Property Table--------- Sources
_ ___ ________ __ ___ ___ ____ ____ ____ ____ ____ ____ ____ ____ ____ __ ____
S Num --Name-- Dup Dsn Key Cncl Swap Priv Dsis Pass Syst Saff Pref Hnor Sx Cats
_ 001 HASJES2A --- ---   1  YES  YES  YES  YES  YES  YES  NOP  ---  --- 00 U003
_ 002   DFHSIP --- ---   8  YES  YES  ---  ---  YES  ---  NOP  YES  --- 00 U003
_ 003 ICUMKG10 --- ---   1  YES  ---  ---  ---  ---  ---  NOP  ---  --- 00 U003
_ 004 ICUMKM11 --- ---   1  YES  ---  YES  ---  ---  YES  NOP  ---  --- 00 U003
_ 005  FNMMAIN --- ---   6  YES  YES  ---  ---  ---  ---  NOP  ---  --- 00 U003
_ 006 ERBMFMFC --- ---   -  YES  YES  ---  YES  YES  YES  NOP  ---  --- 00 U003
_ 007 ERB3GMFC --- ---   -  YES  YES  ---  YES  YES  YES  NOP  ---  --- 00 U003
_ 008 IRRSSM00 --- ---   2  YES  YES  YES  ---  ---  YES  ---  ---  --- 00 U003
_ 009  EPWINIT --- ---   0  YES  YES  ---  YES  YES  ---  ---  YES  --- 00 U003
_ 010 DBNARCHV --- ---   1  ---  YES  ---  ---  ---  YES  ---  ---  --- 00 U003
_ 011 DXRRLM00 --- ---   7  YES  YES  YES  YES  YES  YES  NOP  YES  --- I1 U002
_ 012 DFSMVRC0 --- ---   7  YES  YES  YES  YES  YES  YES  NOP  YES  --- I1 U002
_ 013 CQSINIT0 --- ---   7  YES  YES  YES  YES  YES  YES  NOP  YES  --- I1 U002
_ 014 BPEINI00 --- ---   7  YES  YES  YES  YES  YES  YES  NOP  YES  --- I1 U002
_

Option ===>                                                Scroll ===> PAGE
```

5.5.2 IEFSDPPT Decoded

```
|
  IFO0661I BASE PROGRAM PROPERTIES TABLE REPORT.
  IFO0662I IEFSDPPT ENTRIES HAVE BEEN TRANSLATED INTO SCHEDXX FORMAT.
  IFO0940I  IEFSDPPT FOUND IN LNKLST(8) VOL=VIMVSB;DSN=SYS1.LINKLIB.
  IFO0923I  IEFSDPPT MEMBER CONTENTS ARE AS FOLLOWS:
  |----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
  |PPT      PGMNAME(IEDQTCAM)
  |       CANCEL
  |       NOSWAP
  |       NOPRIV
  |       NOSYST
  |       DSI
  |       PASS
  |       KEY(6)
  |       AFF(NONE)
  |       NOPREF
  |PPT      PGMNAME(ISTINM01)
  |       NOCANCEL
  |       NOSWAP
  |       NOPRIV
  |       SYST
  |       DSI
  |       NOPASS
  |       KEY(6)
  |       AFF(NONE)
  |       NOPREF
  |PPT      PGMNAME(IKTCAS00)
  |       NOCANCEL
  |       SWAP
  |       PRIV
  |       SYST
  |       DSI
  |       PASS
  |       KEY(6)
  |       AFF(NONE)
  |PPT      PGMNAME(AHLGTF  )
  |       NOCANCEL
  |       NOSWAP
  |       NOPRIV
  |       SYST
  |       DSI
```

5.6 System Health Checker Status

```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ NEZ1____ ___ ___ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
_ 0014 NEZ1     WAR 243 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ********************************
```

5.6.1 Health Checker Message Summary Worksheet

```
        ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 139
                                                            --Health Checks--
----------- Configuration Worksheet - 139 Health Checks Discovered ------------
Row Selection: Show Full Health Check Report Compare with Health Check Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -System- ---------------------Health Check Results-----------------------
_ ___ ________ ___ ________ ____________________________ ________ _______
S Num --Name-- Sev -Result- ------------Check Names----------- -Policy- -State-
_ 001 NEZ1     LOW EXCEPTS  USS_HFS_DETECTED                  ACTIVE   ENABLED
_ 002 NEZ1     --- SUCCESS  USS_CLIENT_MOUNTS                 ACTIVE   ENABLED
_ 003 NEZ1     --- SUCCESS  USS_PARMLIB_MOUNTS                ACTIVE   ENABLED
_ 004 NEZ1     LOW EXCEPTS  USS_MAXSOCKETS_MAXFILEPROC        ACTIVE   ENABLED
_ 005 NEZ1     N/A ENV      USS_AUTOMOUNT_DELAY               ACTIVE   DISABLE
_ 006 NEZ1     --- SUCCESS  USS_FILESYS_CONFIG                 ACTIVE   ENABLED
_ 007 NEZ1     N/A ENV      CSTCP_CINET_PORTRNG_RSV_TCPIP     ACTIVE   DISABLE
_ 008 NEZ1     --- SUCCESS  CSTCP_SYSPLEXMON_RECOV_TCPIP      ACTIVE   ENABLED
_ 009 NEZ1     --- SUCCESS  CSTCP_TCPMAXRCVBUFRSIZE_TCPIP     ACTIVE   ENABLED
_ 010 NEZ1     --- SUCCESS  CSTCP_SYSTCPIP_CTRACE_TCPIP       ACTIVE   ENABLED
_ 011 NEZ1     --- SUCCESS  RRS_STORAGE_NUMLARGELOGBLKS       ACTIVE   ENABLED
_ 012 NEZ1     --- SUCCESS  RRS_STORAGE_NUMLARGEMSGBLKS       ACTIVE   ENABLED
_ 013 NEZ1     --- SUCCESS  RRS_STORAGE_NUMSERVERREQS         ACTIVE   ENABLED
_ 014 NEZ1     --- SUCCESS  RRS_STORAGE_NUMTRANSBLKS          ACTIVE   ENABLED

Option ===>                                                 Scroll ===> PAGE
```

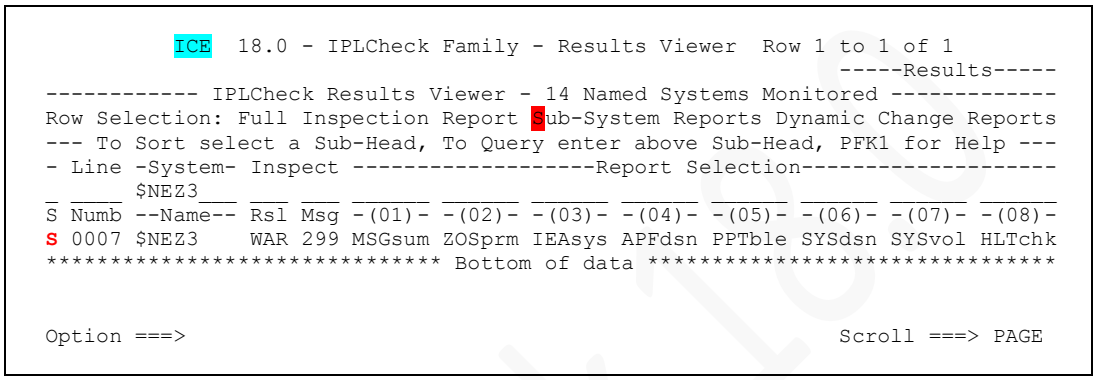
5.6.2 Named Check Detail Report

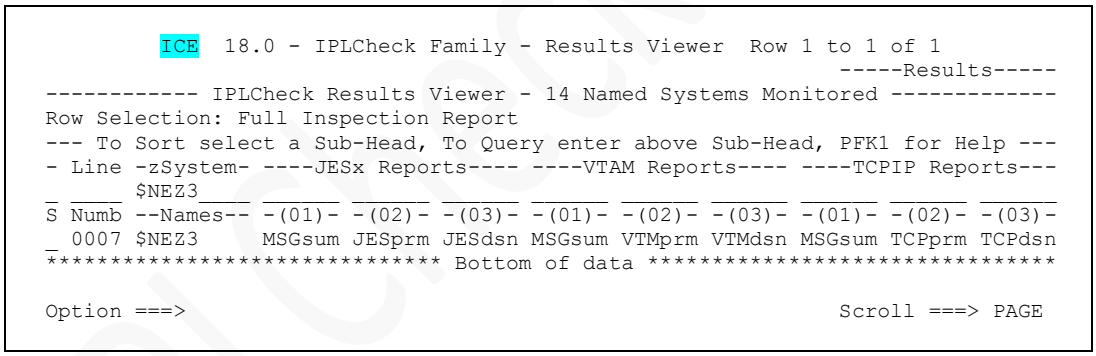
```
/*******************************************************************************/
/*                                                                             */
/*                Report Date:2019/09/28 Report Time:11:41:56                  */
/*                                                                             */
/*                  Health Check Detail - USS_PARMLIB_MOUNTS                   */
/*                                                                             */
/*******************************************************************************/
|
CHECK(IBMUSS,USS_PARMLIB_MOUNTS)
STATE: ACTIVE(ENABLED)              STATUS: SUCCESSFUL
EXITRTN: BPXHCADC
LAST RAN: 09/25/2019 14:30    NEXT SCHEDULED: (NOT SCHEDULED)
INTERVAL: ONETIME
EXCEPTION INTERVAL: SYSTEM
SEVERITY: HIGH
WTOTYPE: CRITICAL EVENTUAL ACTION
SYSTEM DESCCODE: 11
THERE ARE NO PARAMETERS FOR THIS CHECK
FOR CHECK:  BPXPRMxx parmlib mount failures can cause
MODIFIED BY: N/A
DEFAULT DATE: 20190809
ORIGIN: HZSADDCK
LOCALE: HZSPROC
DEBUG MODE: OFF  VERBOSE MODE: NO
REQUIRES USS RESOURCES
|
/*******************************************************************************/
 NewEra Software, Inc.
    Our Job? Help you avoid problems and improve z/OS integrity.
******************************** Bottom of Data ********************************
```

5.7 Sub-System Inspection

The activation of the Sub-System Inspection component of IPLCHECK requires an active Sub-System Support License Key and a restart of the IPLCheck-Core PROC. The Key is inserted into the ICE Control Member NSEPRM00

5.7.1 Accessing Sub-System Inspection Reports





5.7.2 JES Inspection

The JES2/3 Inspector is used to inspect the parameters that start the JES2/3 subsystem. The inspection is performed on the JES2/3 parameters that would be used as determined by either IPLCheck-Core or IPLCheck-Alt. The Inspection involves syntax checking of all parameters and additional inspection processing that identifies syntax coding errors and Definition errors in JES2/3 parameters. Problems identified would generally prevent the next start of JES2/3. Users should correct identified problems as they may turn into JES2/3 initialization errors.

5.7.2.1 JES Message Summary Worksheet

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                            -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -zSystem- ----JESx Reports---- ----VTAM Reports---- ----TCPIP Reports---
_ ____ $NEZ3____ ______ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Names-- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)-
_ 0007 $NEZ3     MSGsum JESprm JESdsn MSGsum VTMprm VTMdsn MSGsum TCPprm TCPdsn
****************************** Bottom of data ******************************

Option ===>                                                Scroll ===> PAGE
```

```
         ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 15 of 21
                                                          -Messages Summary-
---- IPLCheck Results Viewer - 21 Conditional JESx Messages - System:$NEZ4 ----
Row Selection: Show Image Inspection Details Compare with Prior Report Baseline
- Rec --Inspection Result-- - ------------Inspection Message Text--------------
_ ___ ___ _____ _______ ___ _ ____________________Filtered_____________________
S Num Typ -Rec- --Key-- Rsl F ----------------------Filtered---------------------
_ 001 JES 00012 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 84, COLUMN
_ 002 JES 00017 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 87, COLUMN
_ 003 JES 00022 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 90, COLUMN
_ 004 JES 00027 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 95, COLUMN
_ 005 JES 00032 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 98, COLUMN
_ 006 JES 00037 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 101, COLUM
_ 007 JES 00042 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 104, COLUM
_ 008 JES 00047 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 107, COLUM
_ 009 JES 00052 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 110, COLUM
_ 010 JES 00057 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 113, COLUM
_ 011 JES 00062 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 116, COLUM
_ 012 JES 00067 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 119, COLUM
_ 013 JES 00072 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 122, COLUM
_ 014 JES 00077 JES0168 WAR - OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 125, COLUM
_ 015 JES 00082 JES0168 WAR - OBSOLETE KEYWORD 'RDINUM' FOUND AT LINE 129, COLU

Option ===>                                                Scroll ===> PAGE
```

5.7.2.2 JES Configuration Worksheet

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -zSystem- ----JESx Reports---- ----VTAM Reports---- ----TCPIP Reports---
_ ____ $NEZ3____ ______ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Names-- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)-
_ 0007 $NEZ3     MSGsum JESprm JESdsn MSGsum VTMprm VTMdsn MSGsum TCPprm TCPdsn
****************************** Bottom of data ********************************

Option ===>                                                 Scroll ===> PAGE
```

```
       ICE  18.0 - IPLCheck Family - Results Viewer Row 1 to 14 of 833
                                                              --Messge Detail--
------- IPLCheck Results Viewer - 833 Inspection Records - System:$NEZ4 -------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------
_ _____ _______ ___ ____________________________________________________________
S -Rec- --Key-- Rsl ------------------------UnFiltered-------------------------
_ 00001 ------- --- IFO0739I PROCESSING JES2 FOR PROCEDURE JES2.
_ 00002 ------- --- IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
_ 00003 ------- --- IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
_ 00004 ------- --- IFO0940I  HASJES20 FOUND IN LNKLST(10) VOL=VTMVSC;DSN=SYS1.
_ 00005 ------- ---
_ 00006 ------- --- IFO0718I SEARCHING FOR SOURCE DATASET(S).
_ 00007 ------- --- IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
_ 00008 ------- --- IFO0757I   1 DASD EXTENTS.
_ 00009 ------- --- IFO0687W  PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A
_ 00010 ------- ---
_ 00011 ------- --- IFO0938I ALLOCATING SOURCE DATASETS.
_ 00012 ------- --- IFO0150I  ALLOCATING LVL0.PARMLIB; VOL=VTLVL0; MBR=JES2420A
_ 00013 ------- --- IFO0151I     ALLOCATED TO SYS03406.
_ 00014 ------- --- IFO0923I  JES2 MEMBER CONTENTS ARE AS FOLLOWS:

Option ===>                                                 Scroll ===> PAGE
```

5.7.2.3 JES Dataset Worksheet

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -zSystem- ----JESx Reports---- ----VTAM Reports---- ----TCPIP Reports---
_ ____ $NEZ3____ ______ ______ ______ ______ ______ ______ ______ ______ ______
S Numb --Names-- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)- -(01)- -(02)- -(03)-
_ 0007 $NEZ3     MSGsum JESprm JESdsn MSGsum VTMprm VTMdsn MSGsum TCPprm TCPdsn
****************************** Bottom of data ********************************

Option ===>                                                  Scroll ===> PAGE
```

```
       ICE  18.0 - IPLCheck Family - Results Viewer Row 1 to 14 of 833
                                                            --Message Detail--
------- IPLCheck Results Viewer - 833 Inspection Records - System:$NEZ4 -------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------
_ _____ _______ ___ ____________________________________________________________
S -Rec- --Key-- Rsl ------------------------UnFiltered-------------------------
_ 00001 ------- --- IFO0739I PROCESSING JES2 FOR PROCEDURE JES2.
_ 00002 ------- --- IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
_ 00003 ------- --- IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
_ 00004 ------- --- IFO0940I  HASJES20 FOUND IN LNKLST(10) VOL=VTMVSC;DSN=SYS1.
_ 00005 ------- ---
_ 00006 ------- --- IFO0718I SEARCHING FOR SOURCE DATASET(S).
_ 00007 ------- --- IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
_ 00008 ------- --- IFO0757I   1 DASD EXTENTS.
_ 00009 ------- --- IFO0687W  PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A
_ 00010 ------- ---
_ 00011 ------- --- IFO0938I ALLOCATING SOURCE DATASETS.
_ 00012 ------- --- IFO0150I  ALLOCATING LVL0.PARMLIB; VOL=VTLVL0; MBR=JES2420A
_ 00013 ------- --- IFO0151I     ALLOCATED TO SYS03406.
_ 00014 ------- --- IFO0923I  JES2 MEMBER CONTENTS ARE AS FOLLOWS:

Option ===>                                                  Scroll ===> PAGE
```

5.8 Dynamic Changes

The activation the Dynamic Change component of IPLCHECK requires an active Health Checker Support License Key and a restart of the IPLCheck-Core PROC. The Key is inserted into the ICE Control Member NSEPRM00.

5.8.1 Accessing Dynamic Change Reports

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report Sub-System Reports Dynamic Change Reports
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- Inspect -------------------Report Selection--------------------
_ ____ $NEZ3___ ___ ___ ______ ______ ______ ______ ______ ______ _____ ______
S Numb --Name-- Rsl Msg -(01)- -(02)- -(03)- -(04)- -(05)- -(06)- -(07)- -(08)-
D 0007 $NEZ3    WAR 299 MSGsum ZOSprm IEAsys APFdsn PPTble SYSdsn SYSvol HLTchk
****************************** Bottom of data ******************************


Option ===>                                              Scroll ===> PAGE
```

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ******************************


Option ===>                                              Scroll ===> PAGE
```

5.8.2 LNKLST

5.8.2.1 Defined LNKLST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                              Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 209
                                                          -LNKLST Datasets-
------ Configuration Worksheet - 209 Discovered LNKLST Datasets - $NEZ3 -------
Row Selection: Show the Full Dataset Report Compare with Prior Dataset Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -------------------System Datasets-------------------- ---Usages--- -ESM-
_ ___ ___ ___ _____________________________ ______ ___ ____ ___ ___ ____ _____
S Num Cls Org -------------Name------------- Volume SMS Type Trk Dir Mbrs -Acs-
_ 001 LNK  PO SYS3.EMER.TSYS.LINKLIB         CATTTT  NO  PDS 000 000 0000 -----
_ 002 LNK  PO SYS1.TSYS.LINKLIB              M1NYTC  NO  PDS 002 002 0000 -----
_ 003 LNK  PO SYS1.NYT.LINKLIB               M1NYTC  NO  PDS 002 002 0000 -----
_ 004 LNK  PO SYS1.RETAIL.LINKLIB            M1NYTC  NO  PDS 008 008 0000 -----
_ 005 LNK  PO SYS1.LINKLIB                   M1NYTC  NO  PDS 082 082 0043 -----
_ 006 LNK  PO SYS1.MIGLIB                    M1NYTC  NO  PDS 072 072 0019 -----
_ 007 LNK  PO SYS1.CSSLIB                    M1NYTC  NO  PDS 081 081 0010 -----
_ 008 LNK  PO SYS1.SIEALNKE                  M1NYTC  NO PDSE 100 100 0001 -----
_ 009 LNK  PO SYS1.SIEAMIGE                  M1NYTC  NO PDSE 100 100 0000 -----
_ 010 LNK  PO SYS1.CMDLIB                    M1NYTC  NO  PDS 088 088 0002 -----
_ 011 LNK  PO SYS1.SVCLIB                    M1NYTC  NO  PDS 066 066 0000 -----
_ 012 LNK  PO SYS1.SHASLNKE                  M1NYTC  NO PDSE 100 100 0000 -----
_ 013 LNK  PO SYS1.SHASMIG                   M1NYTC  NO  PDS 066 066 0002 -----
_ 014 LNK  PO SYS1.C112.SCEERUN              M1NYTC  NO  PDS 073 073 0035 -----

Option ===>                                              Scroll ===> PAGE
```

5.8.2.2 Dynamic LNKLST Worksheet

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                  Scroll ===> PAGE
```

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 2 of 2
                                                             -Dynamic Changes-
------- Configuration Worksheet - 2 LNKLST Dynamic Changes Discovered ---------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line --Result-- ------------------Super Compare Return Text------------------
_ ____ ______ ___ ____________________________________________________________
S Numb -Name- Cng --------------------z/OS Component Name---------------------
_ 0001 LNKLST DEL SYS1.TWS83.O1.SEQQLMD0
_ 0002 LNKLST DEL SYS3.VIEWDLVR.CAILIB
****************************** Bottom of data ********************************









Option ===>                                                  Scroll ===> PAGE
```

5.8.2.3 LNKLST Dynamic Change Report

```
IFO1010I DYNAMIC CHANGE DETAILS FOR LNKLST.

   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY

NEW: SYS11256.T135536.RA000.ITSXSD8I.R0182669(LNKLST)
OLD: SYS11256.T135536.RA000.ITSXSD8I.R0182668(LNKLST)

           LISTING OUTPUT SECTION (LINE COMPARE)

    ----+----1----+----2----+----3----+----4----+----5

D - SYS1.TWS83.O1.SEQQLMD0                          M2NYTC
D - SYS3.VIEWDLVR.CAILIB                            M2NYTC
```

5.8.3 APFLST

5.8.3.1 Defined APFLST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results Viewer Row 1 to 14 of 849
                                                              ----APF Table----
--------------- Configuration Worksheet - 849 APF Table Entries ---------------
Row Selection: Show APF Dataset Member Lists Compare with Prior Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -State- ----------Authorized Program Facility (APF)---------- Dsn --Esm--
_ ___ ___ ___ _____________________________________________ ______ ___ _______
S Num Unk Dup -----------------Dataset Name----------------- Volume Typ Profile
_ 001 --- --- DB2NYBQ.BMC.DIS.LOAD                          SMS    FLP -------
_ 002 --- --- DB2NYBQ.BMC.SIS.LOAD                          SMS    FLP -------
_ 003 --- --- DB2NYBQ.BMC.TIS.LOAD                          SMS    FLP -------
_ 004 --- --- DB2NYBQ.BMC.UIS.LOAD                          SMS    FLP -------
_ 005 --- --- DB2NYBQ.SDSNEXIT                              SMS    FLP -------
_ 006 --- --- DB2NYBQ.SDSNLOAD                              SMS    FLP -------
_ 007 --- --- DB2NYBT.BMC.BASE.LOAD                         SMS    FLP -------
_ 008 --- --- DB2NYBT.BMC.DIS.LOAD                          SMS    FLP -------
_ 009 --- --- DB2NYBT.BMC.SIS.LOAD                          SMS    FLP -------
_ 010 --- --- DB2NYBT.BMC.TIS.LOAD                          SMS    FLP -------
_ 011 --- --- DB2NYBT.BMC.UIS.LOAD                          SMS    FLP -------
_ 012 --- --- DB2NYBT.SDSNEXIT                              SMS    FLP -------
_ 013 --- --- DB2NYBT.SDSNLOAD                              SMS    FLP -------
_ 014 --- DUP HOGNV.TESTLIB                                 SMS    FLP -------

Option ===>                                                 Scroll ===> PAGE
```

5.8.3.2 Dynamic APFLST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                 Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 29
                                                              -Dynamic Changes-
------- Configuration Worksheet - 29 APFLST Dynamic Changes Discovered --------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line --Result-- ------------------Super Compare Return Text------------------
_ ____ ______ ___ ____________________________________________________________
S Numb -Name- Cng ---------------------z/OS Component Name---------------------
_ 0001 APFLST DEL HOGNV.TESTLIB
_ 0002 APFLST DEL INSX0$P.NCP.TSYS.NCPLIB
_ 0003 APFLST DEL INSX0$P.SSP.TSYS.SSPLIB
_ 0004 APFLST DEL INSX0$P.VTAM.TSYS.LINKLIB
_ 0005 APFLST DEL INSX00P.VPS.TSYS.LINKLIB
_ 0006 APFLST DEL ITSX0$P.OMEG.C1.TSYS.RKANMOD
_ 0007 APFLST DEL ITSX0$P.OMEG.C2.TSYS.RKANMOD
_ 0008 APFLST DEL SYS1.SEDCSPC
_ 0009 APFLST DEL SYS1.SICELINK
_ 0010 APFLST DEL SYS1.SIEALNKE
_ 0011 APFLST DEL SYS1.SIEAMIGE
_ 0012 APFLST DEL SYS1.SORTLIB
_ 0013 APFLST DEL SYS1.TAD.V7R2M0.SHSIMOD1
_ 0014 APFLST DEL SYS3.DVS.SKMPAUTH
_

Option ===>                                                 Scroll ===> PAGE
```

5.8.3.3 The APFLST Dynamic Change Report

```
IFO1010I DYNAMIC CHANGE DETAILS FOR APFLST.

   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY

NEW: SYS11256.T135536.RA000.ITSXSD8I.R0182669(APFLST)
OLD: SYS11256.T135536.RA000.ITSXSD8I.R0182668(APFLST)

          LISTING OUTPUT SECTION (LINE COMPARE)

    ----+----1----+----2----+----3----+----4----+----5

D - HOGNV.TESTLIB                                  SMS
D - INSX0$P.NCP.TSYS.NCPLIB                        SMS
D - INSX0$P.SSP.TSYS.SSPLIB                        SMS
D - INSX0$P.VTAM.TSYS.LINKLIB                      SMS
D - INSX00P.VPS.TSYS.LINKLIB                       SMS
D - ITSX0$P.OMEG.C1.TSYS.RKANMOD                   SMS
D - ITSX0$P.OMEG.C2.TSYS.RKANMOD                   SMS
D - SYS1.SEDCSPC                                   M2NYTC
D - SYS1.SICELINK                                  M1NYTC
```

5.8.4 LPALST

5.8.4.1 Defined LPALST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                          -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                              Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 29
                                                          -LPALST Datasets-
------- Configuration Worksheet - 29 Discovered LPALST Datasets - $NEZ3 -------
Row Selection: Show the Full Dataset Report Compare with Prior Dataset Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -------------------System Datasets-------------------- ---Usages--- -ESM-
_ ___ ___ ___ _____________________________ ______ ___ ____ ___ ___ ____ _____
S Num Cls Org -------------Name------------- Volume SMS Type Trk Dir Mbrs -Acs-
_ 001 LPA  PO SYS3.EMER.TSYS.LPALIB          CATTTT  NO  PDS 001 001 0000 -----
_ 002 LPA  PO SYS1.TSYS.LPALIB               M1NYTC  NO  PDS 002 002 0000 -----
_ 003 LPA  PO SYS1.NYT.LPALIB                M1NYTC  NO  PDS 002 002 0000 -----
_ 004 LPA  PO SYS1.RETAIL.LPALIB             M1NYTC  NO  PDS 002 002 0000 -----
_ 005 LPA  PO SYS3.TSS.CAILPA                M2NYTC  NO  PDS 020 020 0000 -----
_ 006 LPA  PO SYS1.LPALIB                    M1NYTC  NO  PDS 070 070 0017 -----
_ 007 LPA  PO SYS1.C112.SCEELPA              M1NYTC  NO  PDS 002 002 0000 -----
_ 008 LPA  PO SYS1.SDWWDLPA                  M1NYTC  NO  PDS 010 010 0000 -----
_ 009 LPA  PO SYS1.SEZALPA                   M1NYTC  NO  PDS 030 030 0000 -----
_ 010 LPA  PO SYS1.SERBLPA                   M1NYTC  NO  PDS 066 066 0000 -----
_ 011 LPA  PO SYS1.SEAGLPA                   M1NYTC  NO  PDS 020 020 0000 -----
_ 012 LPA  PO SYS1.IBM.LPALIB                M2NYTC  NO  PDS 006 006 0000 -----
_ 013 LPA  PO SYS3.CAI.CAILPA                M2NYTC  NO  PDS 000 000 0000 -----
_ 014 LPA  PO SYS3.CA90.CAILPA               M2NYTC  NO  PDS 010 010 0000 -----

Option ===>                                              Scroll ===> PAGE
```

5.8.4.2 Dynamic LPALST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                 Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 289
                                                              -Dynamic Changes-
------- Configuration Worksheet - 289 LPALST Dynamic Changes Discovered -------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line --Result-- ------------------Super Compare Return Text------------------
_ ____ ______ ___ ____________________________________________________________
S Numb -Name- Cng ---------------------z/OS Component Name---------------------
_ 0001 LPALST ADD **HEX**
_ 0002 LPALST DUP **HEX**
_ 0003 LPALST DUP **HEX**
_ 0004 LPALST DUP **HEX**
_ 0005 LPALST ADD ABENDAID
_ 0006 LPALST ADD BBOCFU70
_ 0007 LPALST DUP BBOCFU70
_ 0008 LPALST DUP BBOCFU70
_ 0009 LPALST DUP BBOCFU70
_ 0010 LPALST DUP BBOCFU70
_ 0011 LPALST DUP BBOCFU70
_ 0012 LPALST ADD BBODPCRT
_ 0013 LPALST DUP BBODPCRT
_ 0014 LPALST DUP BBODPCRT
_

Option ===>                                                 Scroll ===> PAGE
```

5.8.4.3 **HEX**

If an LPA entry has a name that contains binary data, the label **HEX** is substituted in place of the real name as the real name is not printable. Questions should be raised with IBM and/or ISV providers as to whether or why they would add an LPA entry using a hex module name.

5.8.4.4 Duplicate Entries

It is not advised, though perfectly legal, to dynamically add an LPA entry for the same module multiple times. When such a condition is detected, an entry will appear in the report. Such duplications can be wasteful of CSA/ECSA storage and lead to processing confusion and users should raise questions with IBM and/or the ISV owner as to why they add the same name to the LPA more than once; such duplication may result in negative audit findings.

5.8.4.5 The LPALST Dynamic Change Report

```
IFO1010I DYNAMIC CHANGE DETAILS FOR LPALST.

   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY

NEW: SYS11256.T135536.RA000.ITSXSD8I.R0182669(LPALST)
OLD: SYS11256.T135536.RA000.ITSXSD8I.R0182668(LPALST)

         LISTING OUTPUT SECTION (LINE COMPARE)

----+----1----+----2----+----3----+----4----+----5
 I - **HEX**
 I - **HEX**
 I - **HEX**
 I - BBOCFU70
 I - BBOCFU70
 I - BBOCFU70
 I - BBODPCRT
 I - BBODPCRT
 I - BBORTS70
 I - CAIMB838
 I - CAIRIMC
 I - CAIXL7B0
 I - CAIXSQJ$
 I - CAIXSQJ0
 D - CAIXSQJ1
 D - CAMSERR
```

5.8.5 SYMLST

SYMLST compares the content of the IEASYSxx Members of the system under Inspection to the Symbols List as contained in memory. Since Symbols cannot be changed dynamically, any changes reported will be as a result of changes to the IEASYSxx Members since the last IPL.

5.8.5.1 Defined SYMLST Worksheet

```
          ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                              -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                 Scroll ===> PAGE
```

```
          ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 14 of 46
                                                              -----Symbols-----
----------- IPLCheck Results Viewer - 46 System Symbols Discovered ------------
Row Selection: Full Inspection Report Display IEASYMxx Member Source
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line ------Symbolic------ ---------------ParmLib Dataset Source--------------
_ ____ ________ _________ _______ ____________________________________ ___ ______
S Numb --Names-- --Values-- -Member- ------------Dataset------------ Cat Volume
_ 0001 &LERUN.   "C112"     IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0002 &LELINK.  "C112"     IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0003 &SSMFLVL. "1102"     IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0004 &MQVER.   "q2"       IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0005 &L1.      "NY"       IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0006 &SYSR0.   "M0NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0007 &SYSR2.   "M2NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0008 &SYSR3.   "M3NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0009 &SYSR4.   "M4NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0010 &SYSR5.   "M5NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0011 &SYSR6.   "M6NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0012 &SYSR7.   "M7NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0013 &SYSR8.   "M8NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC
_ 0014 &SYSR9.   "M9NYTC"   IEASYM00 SYS1.PARMLIB                     002 M1NYTC

Option ===>                                                 Scroll ===> PAGE
```

5.8.5.2 Dynamic SYMLST Worksheet

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                            -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

Option ===>                                                 Scroll ===> PAGE
```

```
         ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 1 of 1
                                                            -----Results-----
------------ IPLCheck Results Viewer - 14 Named Systems Monitored -------------
Row Selection: Full Inspection Report
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -System- ----APFLIST---- ----LNKLIST---- ----LPALIST---- ----SYMLIST----
_ ____ $NEZ3___ _______ _______ _______ _______ _______ _______ _______ _______
S Numb --Name-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)-- --(1)-- --(2)--
_ 0007 $NEZ3    Defined Dynamic Defined Dynamic Defined Dynamic Defined Dynamic
****************************** Bottom of data ********************************

     ◊──────────────── No Dynamic SYMLST Changes Discovered. ────────────────◊
```

5.8.5.3 The SYMLST Dynamic Change Report

```
IFO1010I DYNAMIC CHANGE DETAILS FOR SYMLST.

   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY

NEW: SYS11256.T135536.RA000.ITSXSD8I.R0182669(LPALST)
OLD: SYS11256.T135536.RA000.ITSXSD8I.R0182668(LPALST)

         LISTING OUTPUT SECTION (LINE COMPARE)

----+----1----+----2----+----3----+----4----+----5
```

5.8.6 Change Summary Report

```
IFO1009I DYNAMIC CHANGE SUMMARY REPORT.

       -MEMBER-  ----STATUS----
        LNKLST   * DIFFERENT *
        APFLST   * DIFFERENT *
        LPALST   * DIFFERENT *
        SYMLST        SAME
```

5.9 Common Worksheet Operations

Viewer Worksheets allow you to analyze targeted data elements 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.

5.9.1 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.

5.9.2 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).

5.9.3 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).

5.9.4 Report Baseline/Comparison

Each Report Worksheet offers a Report Baseline/Comparison option that allows you to freeze the current state of a report as a unique Report Baseline. This Baseline is used later as a compare point to pinpoint changes in subsequent, new reports.

```
          ICE  18.0 - IPLCheck Family - Results View Row 1 to 14 of 135
                                                              --Health Checks--
----------- Configuration Worksheet - 135 Health Checks Discovered -----------
Row Selection: Show Full Health Check Report Compare with Health Check Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -System- --------------------Health Check Results-----------------------
_ ___ ________ ___ ________ ____________________________________ ________ _______
S Num --Name-- Sev -Result- ------------Check Names----------- -Policy- -State-
C 001 NEZ1     LOW EXCEPTS  USS_HFS_DETECTED                     ACTIVE   ENABLED
_ 002 NEZ1     --- SUCCESS  USS_CLIENT_MOUNTS                    ACTIVE   ENABLED
_ 003 NEZ1     --- SUCCESS  USS_PARMLIB_MOUNTS                   ACTIVE   ENABLED
_ 004 NEZ1     LOW EXCEPTS  USS_MAXSOCKETS_MAXFILEPROC           ACTIVE   ENABLED
_ 005 NEZ1     N/A ENV      USS_AUTOMOUNT_DELAY                  ACTIVE   DISABLE
_ 006 NEZ1     --- SUCCESS  USS_FILESYS_CONFIG                   ACTIVE   ENABLED
_ 007 NEZ1     N/A ENV      CSTCP_CINET_PORTRNG_RSV_TCPIP        ACTIVE   DISABLE
_ 008 NEZ1     --- SUCCESS  CSTCP_SYSPLEXMON_RECOV_TCPIP         ACTIVE   ENABLED
_ 009 NEZ1     --- SUCCESS  CSTCP_TCPMAXRCVBUFRSIZE_TCPIP        ACTIVE   ENABLED
_ 010 NEZ1     --- SUCCESS  CSTCP_SYSTCPIP_CTRACE_TCPIP          ACTIVE   ENABLED
_ 011 NEZ1     --- SUCCESS  RRS_STORAGE_NUMLARGELOGBLKS          ACTIVE   ENABLED
_ 012 NEZ1     --- SUCCESS  RRS_STORAGE_NUMLARGEMSGBLKS          ACTIVE   ENABLED
_ 013 NEZ1     --- SUCCESS  RRS_STORAGE_NUMSERVERREQS            ACTIVE   ENABLED
_ 014 NEZ1     --- SUCCESS  RRS_STORAGE_NUMTRANSBLKS             ACTIVE   ENABLED
_

Option ===>                                                 Scroll ===> PAGE
```

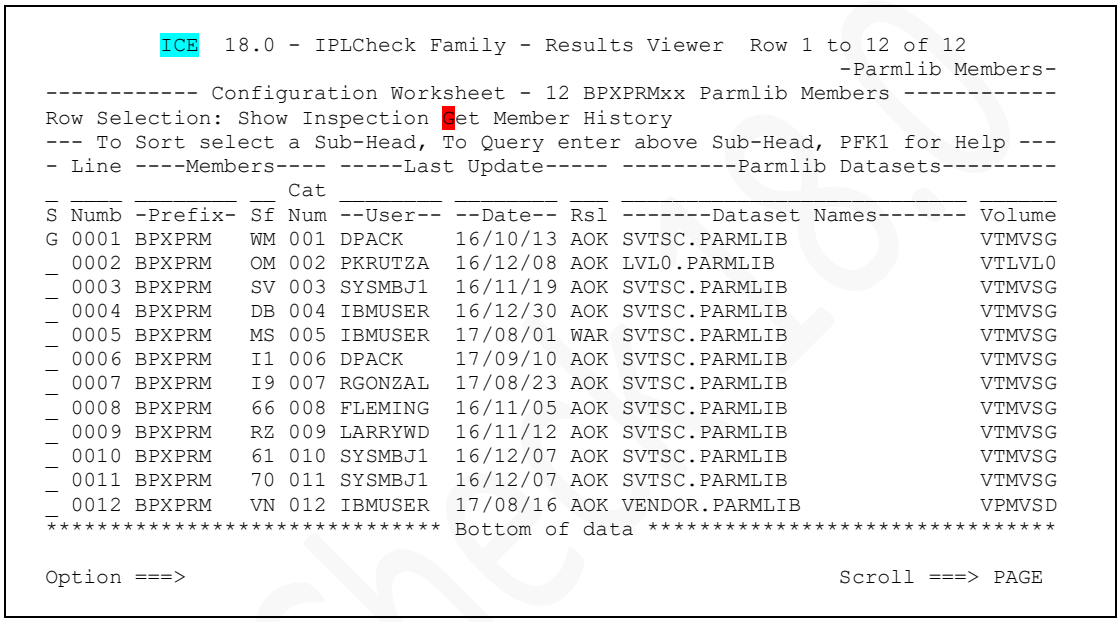
5.9.4.1 Baseline Change Worksheet

The original Report Baseline can be maintained or updated at any time.

```
          ICE  18.0 - IPLCheck Family - Results Viewe Row 1 to 10 of 10
                                                              --Health Checks--
------- Baseline Date:17/09/29 Time:13:58 - 7 Changes Discovered - NEZ1 -------
Row Selection: Update Health Check Report Baseline
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -System- --------------------Health Check Results-----------------------
_ ___ ________ ___ ________ ____________________________________ ________ _______
S Cng --Name-- Sev -Result- ------------Check Names----------- -Policy- -State-
U ADD NEZ1     --- SUCCESS  NEZ_ALT_JES3_INSPECTION            ACTIVE   ENABLED
_ ADD NEZ1     --- SUCCESS  NEZ_ALT_JES2_INSPECTION            ACTIVE   ENABLED
_ ADD NEZ1     --- SUCCESS  NEZ_ALT_OPSYS_INSPECTION           ACTIVE   ENABLED
_ ADD NEZ1     HIG EXCEPTS  NEZ_OPSYS_INSPECTION               ACTIVE   ENABLED
_ OLD NEZ1     --- SUCCESS  JES2_Z11_UPGRADE_CK_JES2           ACTIVE   ENABLED
_ NEW NEZ1     --- SUCCESS  JES2_Z11_UPGRADE_CK_JES2           ACTIVE   ENABLED
_ OLD NEZ1     --- SUCCESS  USS_PARMLIB                        ACTIVE   ENABLED
_ NEW NEZ1     --- SUCCESS  USS_PARMLIB                        ACTIVE   ENABLED
_ OLD NEZ1     --- SUCCESS  IOS_CMRTIME_MONITOR                ACTIVE   ENABLED
_ NEW NEZ1     --- SUCCESS  IOS_CMRTIME_MONITOR                ACTIVE   ENABLED
****************************** Bottom of data ******************************

Option ===>                                                 Scroll ===> PAGE
```

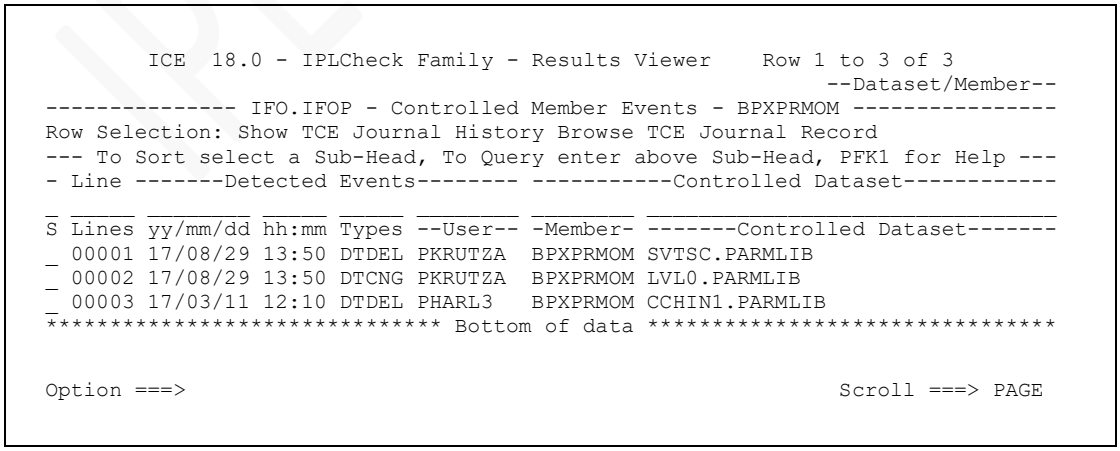
5.9.5 Accessing Member History

Certain Worksheets will contain an access path to the display of Configuration Members, for example, the IEASYS Worksheet. Selecting a member will generally display a list of All such members discovered along the IPL path. Once the member list is resolved and displayed in the Member Worksheet, an additional option, Get Member History, will allow you to display a complete history of member changes when The Control Editor (TCE) is installed and its Control Journals are accessible.



```
        ICE  18.0 - IPLCheck Family - Results Viewer  Row 1 to 12 of 12
                                                          -Parmlib Members-
------------ Configuration Worksheet - 12 BPXPRMxx Parmlib Members ------------
Row Selection: Show Inspection Get Member History
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line ----Members---- -----Last Update----- ---------Parmlib Datasets---------
_ ____ ________ __ Cat ________ ________ ___ ____________________________ ______
S Numb -Prefix- Sf Num --User-- --Date-- Rsl -------Dataset Names------- Volume
G 0001 BPXPRM   WM 001 DPACK    16/10/13 AOK SVTSC.PARMLIB                VTMVSG
_ 0002 BPXPRM   OM 002 PKRUTZA  16/12/08 AOK LVL0.PARMLIB                VTLVL0
_ 0003 BPXPRM   SV 003 SYSMBJ1  16/11/19 AOK SVTSC.PARMLIB                VTMVSG
_ 0004 BPXPRM   DB 004 IBMUSER  16/12/30 AOK SVTSC.PARMLIB                VTMVSG
_ 0005 BPXPRM   MS 005 IBMUSER  17/08/01 WAR SVTSC.PARMLIB                VTMVSG
_ 0006 BPXPRM   I1 006 DPACK    17/09/10 AOK SVTSC.PARMLIB                VTMVSG
_ 0007 BPXPRM   I9 007 RGONZAL  17/08/23 AOK SVTSC.PARMLIB                VTMVSG
_ 0008 BPXPRM   66 008 FLEMING  16/11/05 AOK SVTSC.PARMLIB                VTMVSG
_ 0009 BPXPRM   RZ 009 LARRYWD  16/11/12 AOK SVTSC.PARMLIB                VTMVSG
_ 0010 BPXPRM   61 010 SYSMBJ1  16/12/07 AOK SVTSC.PARMLIB                VTMVSG
_ 0011 BPXPRM   70 011 SYSMBJ1  16/12/07 AOK SVTSC.PARMLIB                VTMVSG
_ 0012 BPXPRM   VN 012 IBMUSER  17/08/16 AOK VENDOR.PARMLIB               VPMVSD
******************************* Bottom of data ********************************

Option ===>                                              Scroll ===> PAGE
```

5.9.5.1 TCE Control Journal – Member History



```
      ICE  18.0 - IPLCheck Family - Results Viewer    Row 1 to 3 of 3
                                                        --Dataset/Member--
--------------- IFO.IFOP - Controlled Member Events - BPXPRMOM ----------------
Row Selection: Show TCE Journal History Browse TCE Journal Record
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -------Detected Events-------- -----------Controlled Dataset------------

_ _____ ________ _____ _____ _______ ________ _____________________________
S Lines yy/mm/dd hh:mm Types --User-- -Member- -------Controlled Dataset-------
_ 00001 17/08/29 13:50 DTDEL PKRUTZA  BPXPRMOM SVTSC.PARMLIB
_ 00002 17/08/29 13:50 DTCNG PKRUTZA  BPXPRMOM LVL0.PARMLIB
_ 00003 17/03/11 12:10 DTDEL PHARL3   BPXPRMOM CCHIN1.PARMLIB
******************************* Bottom of data ********************************


Option ===>                                              Scroll ===> PAGE
```

6 The Image Manager

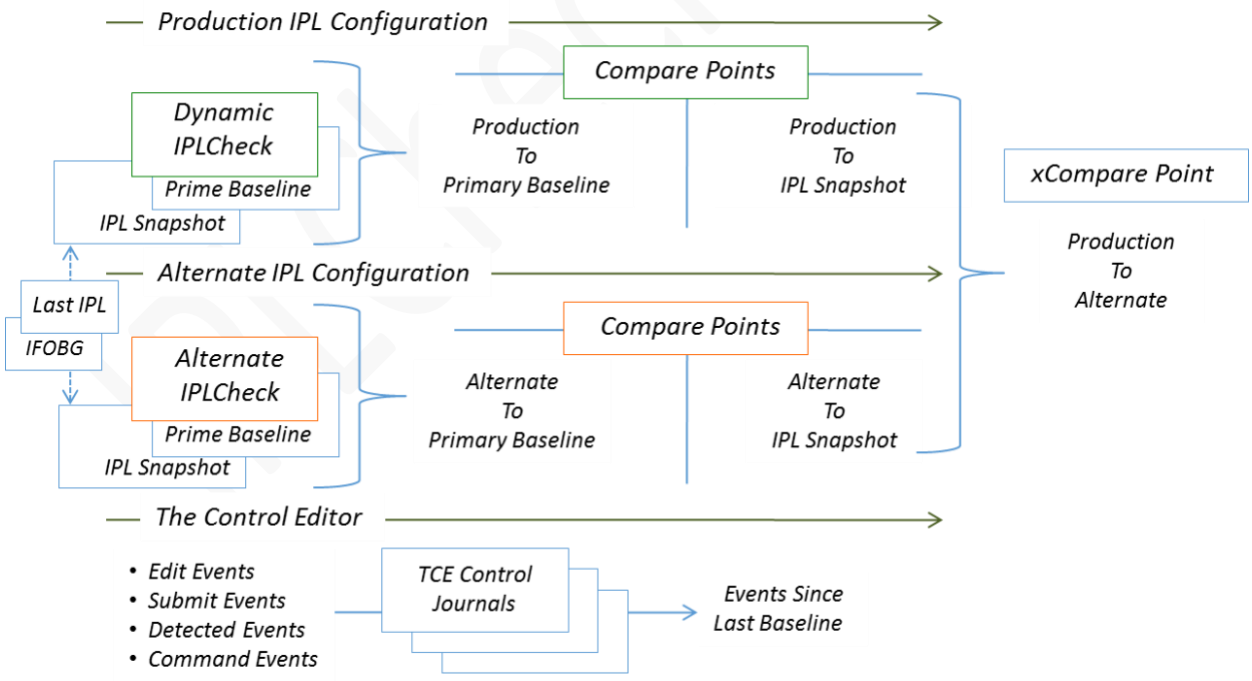
The Inspection Logs of the IPLCheck Family of Predictive Failure Analysis Applications can be used in a broader context as data sources for system baselining and change detection. With this information The Image Manager creates three distinct Image Configuration Baselines for each identified LPAR, one baseline each for the Production and Alternate configurations as discovered (The Moving Baselines) and a startup Snapshot of LPAR Environment as it exists immediately following the most recent IPL (The Fixed Baseline).

6.1 Compare Points

This results in five unique Compare Points:

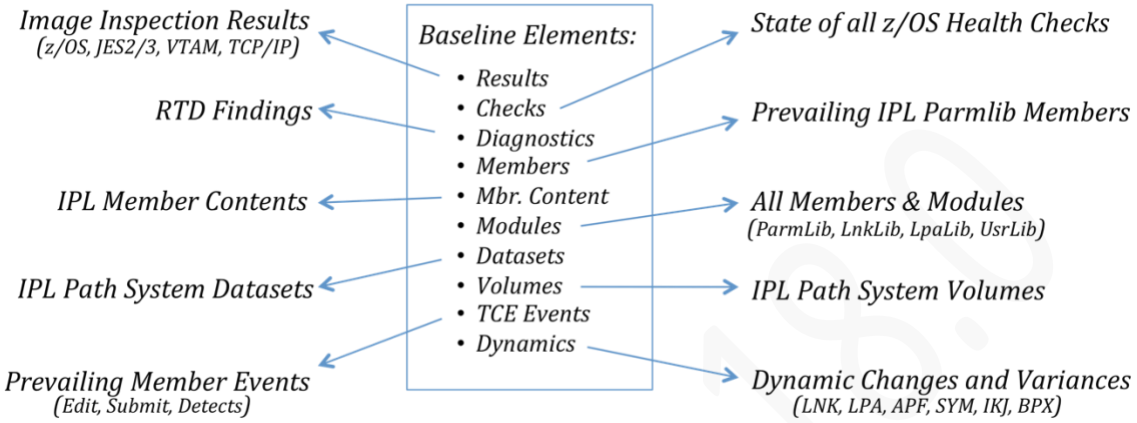
1. Production Settings vs. Production Baseline
2. Production Settings vs. Production Snapshot
3. Alternate Settings vs. Alternate Baseline
4. Alternate Settings vs. Alternate Snapshot
5. Production Settings vs. Alternate Settings

These individual distinct compare points are highlighted in the diagram shown below:



6.2 Baseline Elements

With each execution of the IPLCheck Applications configuration changes, if any, are identified and reported via email, text, or console message against 10 specific Baseline Element profiles for each LPAR:



6.2.1 Results

Member by member inspection exceptions are reported by IPLCheck as of the most recent Image Inspection.

6.2.2 Checks

Individual Check findings as reported by the z/OS Health Checker as of the current execution of the Image Manager.

6.2.3 Diagnostics

Current recommendations as reported by the z/OS Run Time Detector as of the current execution of the Image Manager.

6.2.4 Members

All members discovered along the IPL Path of the targeted LPAR, prevailing members, their state and status as of the most recent Image Inspection.

6.2.5 Mbr. Content

The full content all prevailing members

6.2.6 Modules

A statistical analysis of all Members found in ParmLib and Modules found in the LPAList, LNKList, USRList, and APFList.

6.2.7 Datasets

All System Datasets referenced along the IPL Path as discovered during the last Image Inspection.

6.2.8 Volumes

All System Volumes referenced along the IPL Path as discovered during the last Image Inspection.

6.2.9 TCE Events

All TCE Edit Events, related directly to members prevailing along the IPLPath, as discovered during the last Image Inspection.

6.2.10 Dynamics

Dynamic changes related to the LNKList, LPAList, APFList, Symbols, IKJTSOxx and BPXPRMxx

6.3 Change Detection and Notification

Upon the identification of changes, the Image Manager may be configured to optionally send notification of the change to a designated set of recipients. Notifications sent via email may include, as an attachment, either a Summary of Changes or a Full Detail Change Report. Notices sent via Text (SMS) will include a pointer to the Full Detail Change Report. Notices sent via WTOR will include a single line of text indicating process findings.

A typical email transmittal showing a summary of discovered changes is shown below. A detail change report is attached.

From: NewEra Support
Subject: **IMAGE Manager - S0W1**
Date: October 16, 2017 5:12:54 PM PST
To: ifo@newera.com
Reply-To: ifo@newera.com
1 Attachment, 13.4 KB Save Quick Look

```
TCE0000I IPL CONFIGURATION ANALYSIS - S0W1 - DATE: 20171016  TIME:19:09:39
TCE0000I NEWERA - NSIDIPL DETECTOR - VERSION:TCE 15.0 - NSIDIPL P1 - M10/D16/Y17
|
TCE0000I OVERVIEW OF SYSTEM CONFIGURATION UPDATES AND CHANGES-------------------+
|
TCE0000I +-----------------------------------------------------------------------+
TCE0000I |            Recent System Configuration Updates and Changes            |
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |     SMFID:S0W1      |    OVERVIEW OF RECENT CONFIGURATION CHANGES      |
TCE0000I +---------------------+---------------+---------------+-----------------+
TCE0000I |                     |  Production   |   Alternate   |                 |
TCE0000I |  IPLCheck Baseline  +-------+-------+-------+-------| Cross Systems   |
TCE0000I |                     | Prime | Snaps | Prime | Snaps |                 |
TCE0000I +--baseline_elements--+-------+-------+-------+-------+-----------------+
TCE0000I | Inspection Findings |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | z/OS Health Checks  |  ---  |  CNG  |  ---  |  CNG  |     -------     |
TCE0000I | Runtime Diagnostics |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | Prevailing Members  |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | Full Member Content |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | System Modules      |  ---  |  CNG  |  ---  |  CNG  |     -------     |
TCE0000I | System Datasets     |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | System Volumes      |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | TCE Journal Events  |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I | Dynamic Changes     |  ---  |  ---  |  ---  |  ---  |     -------     |
TCE0000I +---------------------+-------+-------+-------+-------+-----------------+

THE FULL IMAGE MANAGER REPORT IS ATTACHED.
```

6.3.1 A Full Image Manager Report

The Compare Point sub-sections within this report are highlighted for emphasis. Any discovered changes within a given Compare Point are highlighted and denote the level of detail provided.

```
TCE0000I IPL CONFIGURATION ANALYSIS - NEZ1 - DATE:20190828 TIME:18:21:13
TCE0000I NEWERA - NSIDIPL DETECTOR - VERSION:TCE 18.0 - NSIDIPL P1 - M08/D30/Y17
|
TCE0000I OVERVIEW OF SYSTEM CONFIGURATION UPDATES AND CHANGES-----------------+
|
TCE0000I +-----------------------------------------------------------------------+
TCE0000I |            Recent System Configuration Updates and Changes            |
TCE0000I +----------------------+------------------------------------------------+
TCE0000I |     SMFID:NEZ1       |    OVERVIEW OF RECENT CONFIGURATION CHANGES    |
TCE0000I +----------------------+---------------+---------------+---------------+
TCE0000I |                      |  Production   |   Alternate   |               |
TCE0000I |  IPLCheck Baseline   +-------+-------+-------+-------| Cross Systems |
TCE0000I |                      | Prime | Snaps | Prime | Snaps |               |
TCE0000I +--baseline_elements--+-------+-------+-------+-------+---------------+
TCE0000I | Inspection Findings |  ---  |  ---  |  ---  |  CNG  |    -------    |
TCE0000I | z/OS Health Checks  |  ---  |  ---  |  ---  |  ---  |    -------    |
TCE0000I | Runtime Diagnostics |  ---  |  ---  |  ---  |  ---  |    -------    |
TCE0000I | Prevailing Members  |  ---  |  ---  |  ---  |  CNG  |    -------    |
TCE0000I | Full Member Content |  ---  |  ---  |  ---  |  CNG  |    CHANGES    |
TCE0000I | System Modules      |  ---  |  ---  |  ---  |  CNG  |    CHANGES    |
TCE0000I | System Datasets     |  ---  |  ---  |  ---  |  CNG  |    CHANGES    |
TCE0000I | System Volumes      |  ---  |  ---  |  ---  |  ---  |    -------    |
TCE0000I | TCE Journal Events  |  ---  |  ---  |  ---  |  ---  |    -------    |
TCE0000I | Dynamic Changes     |  ---  |  ---  |  ---  |  ---  |    -------    |
TCE0000I +---------------------+-------+-------+-------+-------+---------------+
|
TCE0000I PRODUCTION CONFIGURATION vs ITS PRIMARY BASELINE----------------------+
|
TCE0000I OLD PROFILE DATED:16/11/28 TIME:8:19:51
TCE0000I NEW PROFILE DATED:16/11/28 TIME:8:21:13
|
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |     SMFID:NEZ1      |      CONFIGURATION CHANGE HISTORY AND TREND     |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |11/28|--/--|--/--|--/--|--/--|--/--|--/--|--/--|
TCE0000I |        TIMES        |18:21|--:--|--:--|--:--|--:--|--:--|--:--|--:--|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        TOTAL        | 000 | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +-----prods/prime-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I | Inspection Findings | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | z/OS Health Checks  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Runtime Diagnostics | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Prevailing Members  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Full Member Content | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Modules      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Datasets     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Volumes      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | TCE Journal Events  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Dynamic Changes     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I PRODUCTION CONFIGURATION vs ITS SNAPSHOT BASELINE---------------------+
|
TCE0000I OLD PROFILE DATED:16/11/28 TIME:8:19:51
TCE0000I NEW PROFILE DATED:16/11/28 TIME:8:21:13
|
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |     SMFID:NEZ1      |      CONFIGURATION CHANGE HISTORY AND TREND     |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |11/28|--/--|--/--|--/--|--/--|--/--|--/--|--/--|
TCE0000I |        TIMES        |18:21|--:--|--:--|--:--|--:--|--:--|--:--|--:--|
```

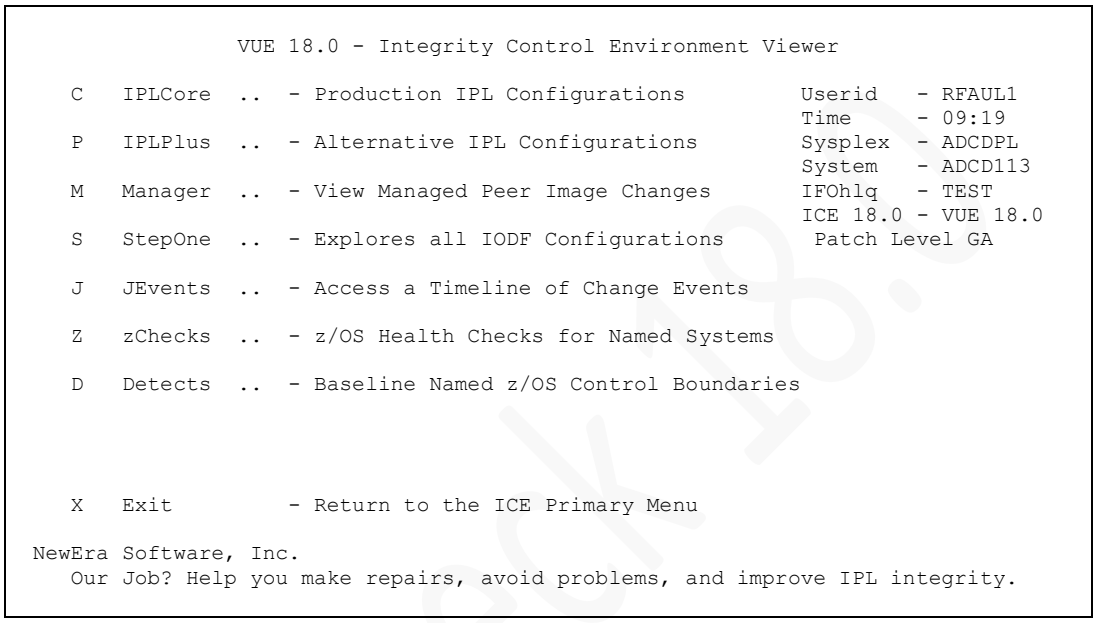
```
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        TOTAL        | 000 | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +-----prods/snaps-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I | Inspection Findings | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | z/OS Health Checks  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Runtime Diagnostics | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Prevailing Members  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Full Member Content | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Modules      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Datasets     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Volumes      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | TCE Journal Events  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Dynamic Changes     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I ALTERNATE CONFIGURATION vs ITS PRIMARY BASELINE----------------------+
|
TCE0000I OLD PROFILE DATED:16/11/28 TIME:8:19:51
TCE0000I NEW PROFILE DATED:16/11/28 TIME:8:21:13
|
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |     SMFID:NEZ1      |      CONFIGURATION CHANGE HISTORY AND TREND     |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |11/28|--/--|--/--|--/--|--/--|--/--|--/--|--/--|
TCE0000I |        TIMES        |18:21|--:--|--:--|--:--|--:--|--:--|--:--|--:--|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        TOTAL        | 000 | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +-----alter/prime-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I | Inspection Findings | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | z/OS Health Checks  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Runtime Diagnostics | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Prevailing Members  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Full Member Content | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Modules      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Datasets     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Volumes      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | TCE Journal Events  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Dynamic Changes     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I ALTERNATE CONFIGURATION vs ITS SNAPSHOT BASELINE----------------------+
|
TCE0000I OLD PROFILE DATED:16/11/28 TIME:8:19:51
TCE0000I NEW PROFILE DATED:16/11/28 TIME:8:21:13
|
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |     SMFID:NEZ1      |      CONFIGURATION CHANGE HISTORY AND TREND     |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |11/28|--/--|--/--|--/--|--/--|--/--|--/--|--/--|
TCE0000I |        TIMES        |18:21|--:--|--:--|--:--|--:--|--:--|--:--|--:--|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        TOTAL        | 005 | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +-----alter/snaps-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I | Inspection Findings | -D- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | z/OS Health Checks  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Runtime Diagnostics | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Prevailing Members  | -D- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Full Member Content | --C | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Modules      | --C | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Datasets     | -D- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Volumes      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | TCE Journal Events  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Dynamic Changes     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I <> CHANGES IN INSPECTION FINDINGS:
|
TCE0000I Line Cng  Member  Rsl  UpUser   UpDate   UpTime  Volume     Dataset
TCE0000I ---- --- -------- --- -------- -------- -------- ------ ---------------
TCE0000I 0001 DEL JES2420A WAR JOHNWD   15/09/13 08:26:00 VTLVL0 LVL0.PARMLIB
```

```
|
TCE0000I <> PREVAILING PARMLIB MEMBER CHANGES:
|
TCE0000I Line Cng  Member  Rsl  UpUser   UpDate   UpTime         Dataset
TCE0000I ---- --- -------- --- -------- -------- -------- ----------------------
TCE0000I 0001 DEL JES2420A WAR JOHNWD   15/09/13 08:26:00 VTLVL0 LVL0.PARMLIB
|
TCE0000I <> PREVAILING MEMBER CONTENT CHANGES:
|
TCE0000I Line Cng  Member                Member Content
TCE0000I ---- --- -------- ------------------------------------------------------
TCE0000I 0001 ADD      NOP
TCE0000I
TCE0000I 0001 DEL JES2420A /*****************************************************
TCE0000I 0002 DEL JES2420A /** JES2 INITIALIZATION PARAMETERS.
TCE0000I 0003 DEL JES2420A /**
TCE0000I 0004 DEL JES2420A /** REVISIONS:
TCE0000I 0005 DEL JES2420A /**
TCE0000I 0006 DEL JES2420A /** 02/04/05 - PAULK  - CHANGED PRT(3) TO UNIT=203
TCE0000I 0007 DEL JES2420A /**                    - REMOVED PRT(4)
TCE0000I 0008 DEL JES2420A /** 03/23/03 - RALEY  - CHG CKPT VOLUMES
TCE0000I 0009 DEL JES2420A /** 02/18/99 - TODD   - CHG JOENUM=2000 & JOEWARN=75
TCE0000I 0010 DEL JES2420A /** 08/19/98 - TODD   - ADDED ETPSTOP STC TO AUTO COM
TCE0000I 0011 DEL JES2420A /** 02/13/98 - TODD   - CHANGE COMMANDS TO NEW SYNTAX
TCE0000I 0012 DEL JES2420A /** 04/13/95 - BOHART - CHANGE NJE DEFINITIONS
TCE0000I 0013 DEL JES2420A /** 08/19/93 - TRALEY - ADD UNITS TO RDR1 AND PUN1
TCE0000I 0014 DEL JES2420A /** 08/23/92 - TRALEY - CORRECT SVSRDR2 NODE NAME; ST
TCE0000I 0015 DEL JES2420A /** 07/14/92 - TRALEY - INCREASE LINENUM PARM FROM 1
TCE0000I 0016 DEL JES2420A /**                     NJEDEF
TCE0000I 0017 DEL JES2420A /** 02/28/92 - TRALEY - ADD NJE DEFINITIONS TO CONNEC
|
TCE0000I <> USRLST DATASET MODULE CHANGES:
|
TCE0000I Line Cng  Module   Alias     Size   Au AMO RMO          Dataset
TCE0000I ---- --- -------- -------- -------- -- --- --- -------------------------
TCE0000I 0001 DEL NOP
|
TCE0000I <> SYSTEM DATASET CHANGES:
|
TCE0000I Line Cng   Class    Org SMS Type Volume           Dataset
TCE0000I ---- --- --------- --- --- ---- ------ --------------------------------
TCE0000I 0001 DEL     TCPIP  PO  NO  PDS VPMVSD VENDOR.TCPPARMS
TCE0000I 0002 DEL   TCPDATA  PS  NO  SEQ VPMVSB TCPIP.TCPIP.DATA
TCE0000I 0003 DEL      CICS  PO  NO  PDS VPDFHC DFH320.SYSIN
|
TCE0000I PRODUCTION CONFIGURATION vs ALTERNATE CONFIGURATION------------------+
|
TCE0000I OLD PROFILE DATED:16/11/28 TIME:8:21:13
TCE0000I NEW PROFILE DATED:16/11/28 TIME:8:21:13
|
TCE0000I +--------------------+-----------------------------------------------+
TCE0000I |    SMFID:NEZ1      |      CONFIGURATION CHANGE HISTORY AND TREND   |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |       DATES        |11/28|--/--|--/--|--/--|--/--|--/--|--/--|--/--|
TCE0000I |       TIMES        |18:21|--:--|--:--|--:--|--:--|--:--|--:--|--:--|
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |       TOTAL        | 003 | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +-----prods/alter-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I | Inspection Findings | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | z/OS Health Checks  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Runtime Diagnostics | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Prevailing Members  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Full Member Content | --C | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Modules      | --C | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Datasets     | AD- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | System Volumes      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | TCE Journal Events  | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I | Dynamic Changes     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
```

```
TCE0000I <> PREVAILING MEMBER CONTENT CHANGES:
|
TCE0000I Line Cng  Member                 Member Content
TCE0000I ---- --- -------- ----------------------------------------------------
TCE0000I 0001 ADD      NOP
TCE0000I
TCE0000I 0001 DEL JES2420A /*************************************************
TCE0000I 0002 DEL JES2420A /** JES2 INITIALIZATION PARAMETERS.
TCE0000I 0003 DEL JES2420A /**
TCE0000I 0004 DEL JES2420A /** REVISIONS:
|
TCE0000I <> USRLST DATASET MODULE CHANGES:
|
TCE0000I Line Cng  Module   Alias     Size   Au AMO RMO          Dataset
TCE0000I ---- --- -------- -------- -------- -- --- --- ------------------------
TCE0000I 0001 DEL NOP
|
TCE0000I <> SYSTEM DATASET CHANGES:
|
TCE0000I Line Cng   Class   Org SMS Type Volume           Dataset
TCE0000I ---- --- --------- --- --- ---- ------ --------------------------------
TCE0000I 0001 ADD      JES2  PO  NO  PDS VPMVSD VENDOR.PROCLIB
TCE0000I 0002 ADD      JES2  PO  NO  PDS VTMVSG SVTSC.PROCLIB
TCE0000I 0003 ADD      JES2  PO  NO  PDS VTLVL0 LVL0.PROCLIB
TCE0000I 0004 ADD      JES2  PO  NO  PDS VIMVSB SYS1.PROCLIB
TCE0000I 0005 DEL  RESOLVER  PO  NO  PDS VPMVSD VENDOR.PARMLIB
TCE0000I 0006 DEL    TELNET  PO  NO  PDS VPMVSD VENDOR.TCPPARMS
|
TCE0000I END IPL CONFIGURATION ANALYSIS - NEZ1.
|
/*****************************************************************************/
/*                                                                           */
/*                  RPTDSN:IFO.IFOP.$TCEDIPL.@NEZ1.D2333182                  */
/*                                                                           */
/*****************************************************************************/
  NewEra Software, Inc.
      Our Job? Help you avoid problems and improve z/OS integrity.
```

6.3.2 The ICE Viewer Access Point

All LPARs under surveillance by the Image Manager, and all of their Change Reports and Findings, may be accessed from a single Access Point configured in the ICE Viewer.



7 The Integrity Controls Environment (ICE)

The Integrity Controls Environment (ICE) is a VTAM Application that provides access to the ICE Applications Image FOCUS, The Control Editor and The Supplementals. When you are ready to move beyond the functions of IPLCheck, NewEra Technical Support can provide you with the required License Keys. Contact them via Email at support@newera.com.

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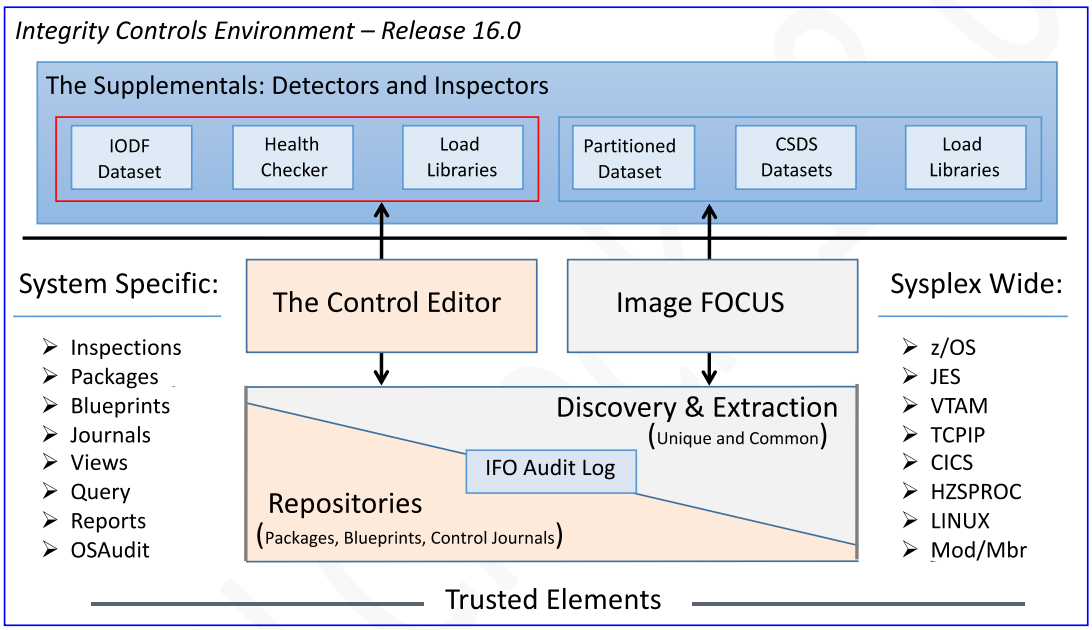
z/OS Integrity and Compliance

z/OS Configuration Management and Compliance – ICE 16.0 - Overview



7.1 Image FOCUS

The Image FOCUS Application set automatically discovers, extracts, blueprints and inspects the z/OS configuration components that comprise a Sysplex and its Images. Process findings are shared with other ICE applications via a Sysplex Audit Log.

7.2 The Control Editor

The Control Editor is a “Compensating Control” that provides a layer of non-invasive security over the z/OS configuration components housed in defined sets of partitioned datasets. TCE significantly enhances the level of security generally provided by the site’s External Security Manager (ESM).

7.3 The Supplementals

These optional ICE applications provide both additional Inspection and Monitoring functions that extend the scope of the ICE processing to include: Load Libraries, CSDS Datasets, IODF Datasets, named System Health Checkers, RACF and DB2 Configurations.

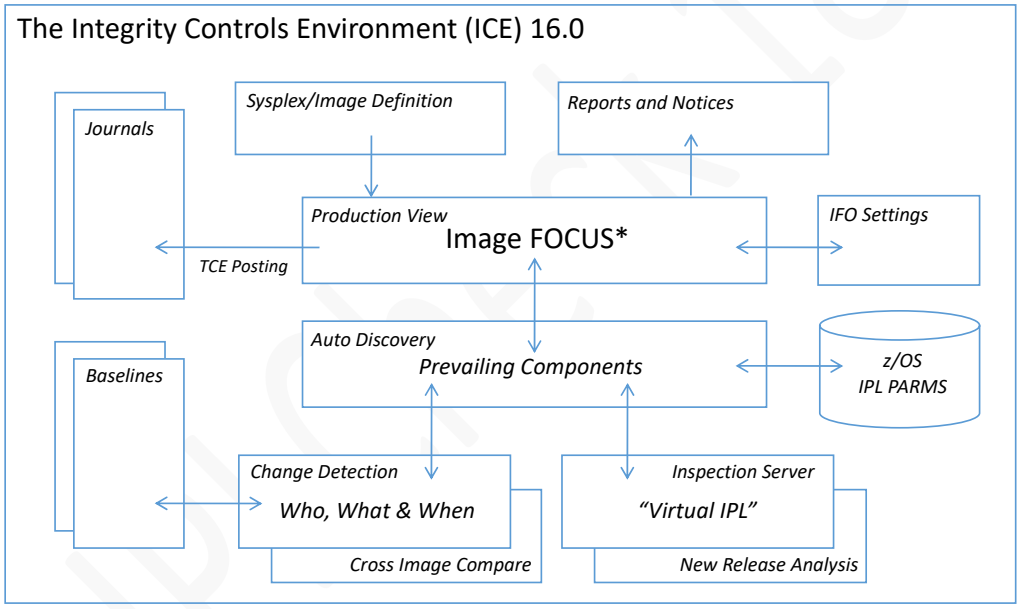
8 About Image FOCUS

Image FOCUS ensures, to the extent possible, the maximum availability of a z/OS Sysplex and its Images. To accomplish this, the power of Image FOCUS and its companions, Change Detection and Inspection Server, are grouped into "Views". Each "View" – Production, Workbench and Recovery, is designed to support a focused set of management activities: New Release Analysis, Configuration Change Analysis and Image/Sysplex Inspection. Each enables the Image FOCUS user to quickly gain a full understanding of the complete z/OS configuration.

NewEra Software

z/OS Integrity and Compliance

About Image FOCUS - Product Overview - Production View Detailed



* In addition to the z/OS Operating System Image FOCUS supports JES2/3, VTAM, TCPIP, CICS, MODULES and MEMBERS

The Image FOCUS Inspection Server is built from a collection of z/OS Operating System, JES2/3, VTAM, TCP/IP and CICS configuration rules researched and/or developed, through an ongoing process, by NewEra from available IBM documentation and real-world experiences. The resulting proprietary "Rule Sets", which include a full understanding of the configuration syntax, the IPL search order process and configuration component relationships is shared with IPLCheck to perform a z/OS Operating System "Virtual IPL" of a targeted LPAR.

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Contact us for additional information:

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