

“...generally we all want to be technically current, not necessarily at the ‘Bleeding-Edge’ but close enough to be knowledgeable of release-to-release changes and the impact they will have on our z/OS systems and organizational users.”

New Release Analysis (NRA)

16.0

USERS GUIDE



Contact us for additional information:

NewEra Software Technical Support

800-421-5035 or 408-520-7100

Or text support requests to 669-888-5061

support@newera.com

www.newera.com

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1 Foreword

1.1 Copyright, Trademark and Legal Notices

1.1.1 *Copyrights*

This User Guide and the related Software Product(s) are protected under a Copyright dated 2020 by NewEra Software, Inc. All rights are reserved.

1.1.2 *License Agreement*

This User Guide describes the installation and operation of Image FOCUS: New Release Analysis (NRA) and related components of the Integrity Controls Environment (ICE). It is made available only under the terms of a license agreement between the licensee and NewEra Software, Inc. No part of this Guide or the related Software Product(s) may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose, without the express written permission of NewEra Software, Inc.

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1.2 General Information

1.2.1 *The Purpose of this Document*

The purpose of this document is to explain major enhancements to be found in Image FOCUS: New Release Analysis and to further provide detailed product references for use by both new and existing users. Existing users should review and become familiar with the new features. New users should do the same and, as needed, use this document as a reference during product installation, setup and initial familiarization.

1.2.2 *Who Should Read this Document*

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

1.2.3 *Other Documents and Resources*

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

- Image FOCUS Read Me;

The Image FOCUS Read Me is found in the Product Download Package.

- Getting Started With Image FOCUS.

Getting Started with Image FOCUS is a step-by-step walk through that provides a basic understanding of how to navigate and use the Image FOCUS Workbench and how to set up and use of the optional Image FOCUS Surveillance Monitor (Production View).

The Getting Started with Image FOCUS guide is also in the Download Package and can be accessed from the NewEra web site or by using the link below:

<https://www.newera.com/startifo.pdf>

- Image FOCUS Messages Volume 1 & 2

These documents contain a numerical list of Image FOCUS Inspection Messages. Each Inspection Message issued by Image FOCUS, either as part of an Image or Component Inspection, is described.

1.2.4 *Reporting Problems*

When reporting an Image FOCUS: New Release Analysis 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 Image FOCUS Address Space;
- The full Image Inspection Report.
- The output from the INSTALL/ALLOC/BUILD job(s).
- The site-specific 'D M=CPU' information.

Please send this and all other information via email to:

support@newera.com

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 Image FOCUS: New Release Analysis

Image FOCUS: New Release Analysis is an Integrity Controls Environment (ICE) Application whose primary function is to provide Inspection services to users of the z/OS operating system, its subsystems.

Image FOCUS: New Release Analysis is a VTAM-based 3270 application that can accurately simulate the operational environment of every available release of z/OS. This is important because it means that you won't have to install a new release of z/OS before you begin your migration project. Begin when you like, on your schedule, when time is available.

Image FOCUS: New Release Analysis is a sub-component of NewEra's Integrity Controls Environment (ICE). ICE has long been a destination for z/OS System Programmers. Many use ICE as an integral, indispensable part of their z/OS management processes. Based on a foundation of IBM documentation, years of real world experience and industry best practices, the internal core of ICE – the z/OS Inspection Server – is used as the primary ICE sub-component that aids in the constant vigilance over the integrity of defined z/OS Sysplexes and their Images that ICE provides. It is this same Inspection Server that makes Image FOCUS: New Release Analysis possible.

1.5 Product Limitations

When using Image FOCUS: New Release Analysis keep in mind that we have used our best efforts to design and build Inspectors that function in accordance with our understanding of available IBM documentation. In this ongoing process you play a key role. With your help, we would like to document those cases where actual MVS and z/OS system implementation appears to differ from the published documentation available to the user community. Where possible, undocumented system behavior will become a part of the overall Inspection "Rule Set".

To aid us in this process, please keep the following in mind:

1. The inspection process attempts to validate members and configuration files for proper syntax and content.
2. Some members and configuration files are checked line by line, while others are validated by section or as a whole.
3. IBM documentation for some PARMLIB members and subsystems is not clear. This may result in one of the following:
 - a. Errors may appear in members during a real IPL that are not detected or,
 - b. Errors may be reported that do not generate errors during a real IPL.

Errors, Warnings and Notices generated may be due to a misunderstanding of the documentation in IBM manuals or a defect in the Inspection application(s). Whatever the case, if you receive an Error, Warning or Notice that you have a question about, please let us know and we will evaluate it, correct it or work with IBM to change their documentation.

1.6 Environmental Restrictions

The Integrity Controls Environment (ICE) in which Image FOCUS: New Release Analysis executes offers access to ISPF/PDF, ISPF/PDF applications, REXX programs and CLISTs within the context of certain program restrictions.

1. IBM supplied ISPF/PDF datasets must be used. No customized or altered form of these datasets is supported. [Exception: Users are able to modify the NSE@APPL panel to add specific applications to the User Defined Application Menu.]
2. Native TSO commands and services are not fully supported.
3. Support for line mode I/O differs from native TSO support of line mode I/O.
4. Attempts to use certain restricted functions will result in the following message:

“You attempted to RUN an Unsupported function in a dynamic TSO environment.”

1.7 Enhancements in this Release

In this release of Image FOCUS the z/OS Core and its Subsystem and Supplemental Inspectors has been enhanced to provide support for z/OS V2R4. It is recommended that current users upgrade to this new release as soon as possible.

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1.8 System Requirements

1.8.1 Prerequisites

To use Image FOCUS: New Release Analysis, you will need the Integrity Controls Environment (ICE) 16.0 or higher, access to ACF/VTAM, a standard security system (e.g., RACF, ACF2 or Top Secret), a valid USER ID and PASSWORD, and a VTAM (TSO Multi-User Mode) supported display terminal. You will find the latest release of ICE at www.newera.com.

1.8.2 The License Key

A License Key is required to activate Image FOCUS: New Release Analysis. Once the License Key is inserted in the ICE Control Member NSEPRM00 the functions of Image FOCUS: New Release Analysis will be unlocked and become immediately accessible from the ICE Primary Menu.

1.9 Solving Real-World Problems

- ...I wish we had our own *z/OS Sandbox* a place where we could build and test future systems and train the new guys and gals on how to configure and support z/OS; a place where we could teach them what it's really all about. But in our shop system availability is everything and we just didn't have the resources to set things up the way we wanted. Image FOCUS: New Release Analysis solved all of that for us. With its "Virtual IPL" capabilities today we can execute a virtual start of z/OS anytime, testing this and that, without impacting our business systems."
- "...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 reduce the cost of upgrading to a new release of z/OS. 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 Image FOCUS: New Release Analysis solved all financial concerns. We acquired a license for one of our six production processors and upgraded them all. Management now thinks New Release Analysis as a *MUST HAVE*. The full Image FOCUS is next on our list!"
- "...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, New Release Analysis. As we get comfortable with the process we can, at any time, move on to more global z/OS concerns: Sysplex and Subsystem Inspections, Baselines, Change Detection, Compensating Configuration Control and IODF Configuration Management. We're not 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."

2 Recent z/OS Configuration Changes

For a brief review of changes implemented in z/OS V2R4 we recommend downloading a copy of the document *What's New in z/OS V2R4* from www.newera-info.com.

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4 The Integrity Controls Environment (ICE)

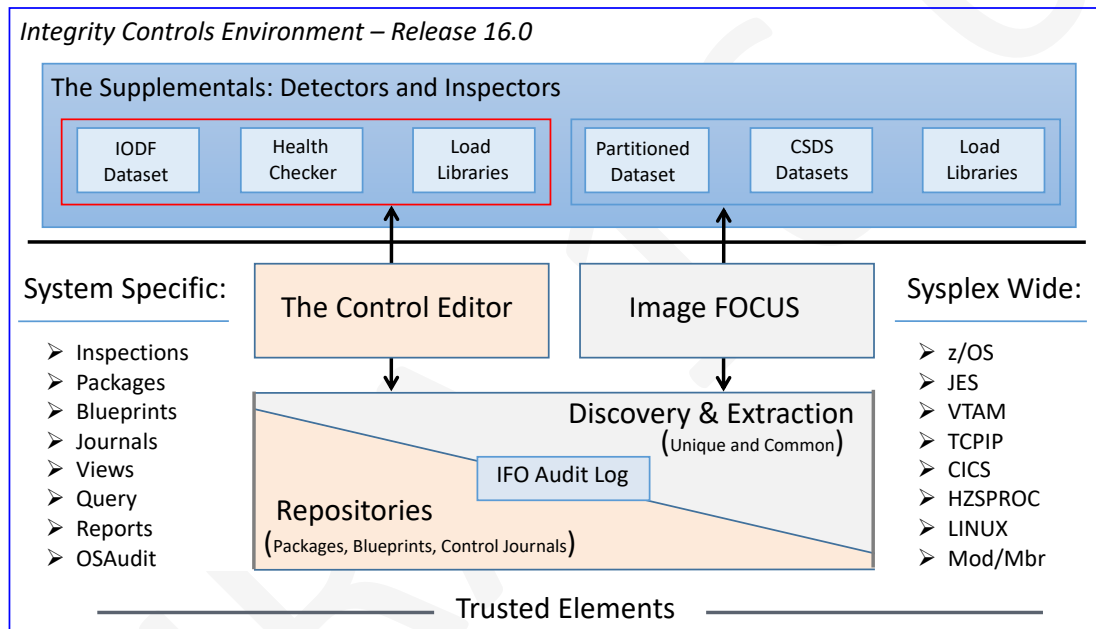
The Integrity Controls Environment (ICE) is a VTAM Application that provides access to the ICE Applications Image FOCUS, The Control Editor and The Supplementals.



NewEra Software z/OS Integrity and Compliance



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



4.1 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.

4.2 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).

4.3 The Supplementals

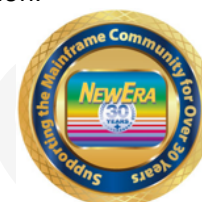
These optional ICE applications provide both additional Inspection and Monitoring functions that extend the scope of the ICE processing to include: Load Libraries, CSDS Datasets, IODF Datasets and Named System Health Checkers.

5 About Image FOCUS

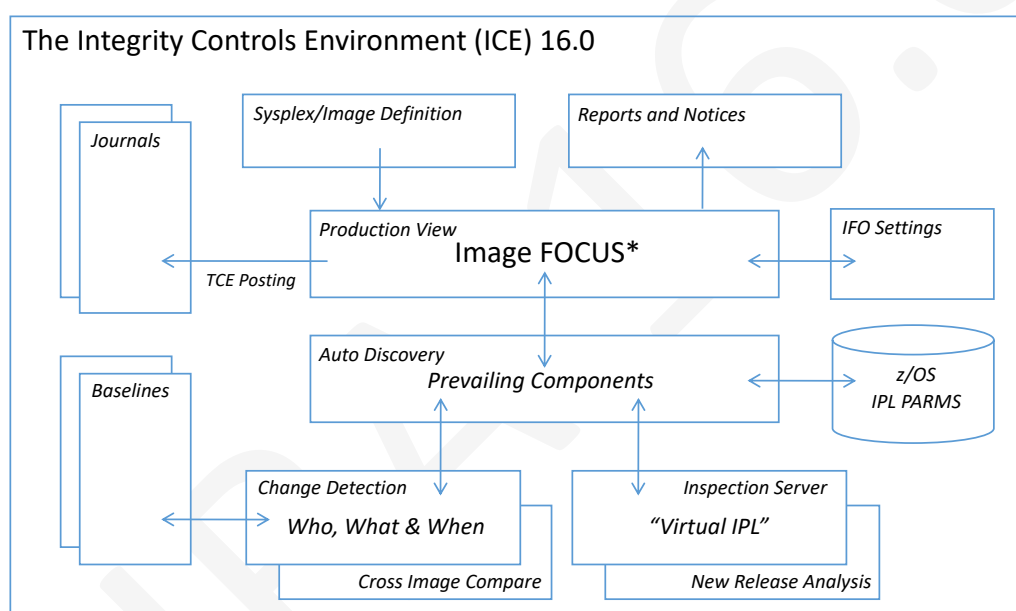
Image FOCUS ensures, to the extent possible, the maximum availability of a z/OS Sysplex and its Images. To accomplish this, the power of Image FOCUS and its companions, Change Detection and Inspection Server, are grouped into "Views". Each "View" – Production, Workbench and Recovery is designed to support 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

5.1 Why Image FOCUS

MVS and z/OS-based systems often evolve into a complex of system Images coupled together to form a Sysplex. Such a Sysplex will often function as the organizations' back office, processing and storing critical customer and financial data. Information System customers and users often gain access to this back office data via the Internet through presentation applications housed on UNIX and/or Windows servers. The availability of each of these elements in an Information System is critical to the success of the organization and its partners, its customers, and its employees, and increasingly to comply with government regulations.

The sole purpose of the Image FOCUS product line is to ensure, to the extent possible, the maximum availability of the Sysplex and its Images. To accomplish this, the power of Image FOCUS and its companion, the Inspection Server, are grouped into "Views" – Production, Workbench and Recovery. Each "View" is designed to support a focused set of management activities that will enable the Image FOCUS user to quickly gain an understanding of the configuration and the integrity of any given Sysplex and/or Image(s). Such an understanding will lead directly to an improvement in overall Information System availability and integrity. At the heart of these various "Views" and their functions is the Image FOCUS Inspection Server.

5.2 The Inspection Server

The Image FOCUS Inspection Server is a collection of Operating System and Subsystem "Rule Sets" that were developed from available IBM documentation and real-world experiences. These "Rule Sets", which include an understanding of the configuration syntax and the IPL search order process, are used by the Image FOCUS Inspection Server to perform a "Virtual IPL" of the Sysplex, its Images and their Subsystems. One of the results we generate during the "Virtual IPL" is an Inspection Log; we call the others "Packages" and "Notices".

5.3 Inspection Reports

The Inspection Log contains the step-by-step detail of the IPL. It begins with the validation of the IPL Unit and LOADPARM Address and it continues from there, processing each PARMLIB and PROCLIB member for syntactical correctness and related data sets for referential integrity and attribute characteristics. Sysplex relationships defined within the Sysplex parameters of an Image are crosschecked with other Images to ensure Image eligibility in the Sysplex. In final form, the Inspection Report will appear to you as a very detailed IPL Logic Map. This Map documents and validates each and every step of the "Virtual IPL" process and often will become an integral part of your system documentation. Elements which fail to validate during Inspection are flagged as Errors, Warnings or Notices. As you review your first set of Inspection Logs you will find that, depending on certain optional settings, the logs can be quite lengthy. It is common for a full Inspection Log to exceed a length of 10,000 records. Several tools are provided within Image FOCUS to help you limit the output of an Inspection Log and/or quickly navigate to points of interest.

5.4 Notice of Findings

With each designated Monitor Interval, the Image FOCUS Inspection Server performs a complete check of the Sysplex and its Images. During this automated process, the Inspection Server is looking for configuration changes by comparing the current configuration to the last valid Package "Blueprint". The content of the current members and configuration files would be used to re-IPL the system if it were to fail or to evaluate potential problems. If changes or problems are detected, notification messages are sent.

5.5 Change Detection

The optional Package is the "Blueprint" of a valid, viable Sysplex and/or Image. It contains the content of the members and configuration files used in the IPL process. Each Image Package is automatically updated and maintained by the Image FOCUS Inspection Server during a Monitoring Interval. This continuous update process ensures you that there is a working copy of the most current configuration. These Packages are used to automatically detect configuration changes, pinpoint configuration problems and make data set repairs.

It is important to note two things: first, the importance of the Package in this process and, second, that by default Packages ARE NOT updated when problems are detected. This ensures that you always have a copy of the configuration components that comprise a viable IPL.

5.6 Logging on to Image FOCUS

Once the Integrity Controls Environment (ICE) is installed and Image FOCUS (IFO) activated log on to the assigned APPLID to display the ICE Primary Menu to gain access to the primary Image FOCUS Functions-Production, Worksheet and Recovery Views.

All Image FOCUS functions are grouped together into "Views" that are designed to support specific activities. These "Views" include Production, Workbench and Recovery Views. To select a "View", you must place the single letter selection after the Option Pointer and press enter. This action will immediately display the Main Menu of the selected "View".

```

                                Integrity Control Environment: ICE

P   Production   - Image Focus Production           Userid   - DEMO1
W   Workbench    - Image Focus Workbench            Time     - 11:25
R   Recovery     - Image Focus Recovery              Terminal - 3278
C   Control      - TCE Administration/Selections     System   - SOW1
V   Viewer       - The IPLCheck Viewer               Applid   - IFOP
D   Definitions  - Definitions & Settings            Image Focus 16.0
                                           Patch Level 000

*****
* Control Task: RUNNING *
* Recovery      : RUNNING *
*****

X   Exit         - Terminate

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

```

5.6.1 Production View

The Production View supports functions that are used to enable the interval monitoring of an Image FOCUS-managed Sysplex or Image. Once active, this critical monitoring function will call the Image FOCUS Inspection Server as scheduled to perform a Sysplex-wide validation of the current configuration components that define a running production environment. As directed by optional settings, Packages are updated and "Need to Know" notices sent.

5.6.2 Workbench View

The Workbench View will assist in the analysis of each Image Component by providing Operating System and Subsystem Inspection, New Release and Configuration Change

Management Tools. Each of these tools will generate Inspection Logs or Change Reports that focus attention on changes to critical configuration components and/or their integrity.

5.6.3 *Recovery View*

The Recovery View gives you access to critical system resources when JES, VTAM, RACF, and/or TSO are not available. In addition, the proven NoTSO Environment and IFOR (IFO Recovery) ensure that you retain access to Image FOCUS for problem analysis, repair and recovery under these adverse conditions. The Recovery View also houses the entry point for the Fast DASD Erase for z/OS application.

5.6.4 *The Control Editor*

The Control Editor is an optionally licensed application of the Image FOCUS Control Environment. Its intended purpose is to extend the Control Environment and, in doing so, provide to Image FOCUS users an ISPF editing platform from which they can both control and manage access and changes to critical system datasets.

5.6.5 *IPLCheck Viewer*

IPLCheck findings – potential failures – are reported to the Health Checker Framework where they are immediately distributed to operational and technical staff for review and remediation. A detailed review of all LPARs can be conducted simultaneously using the IPLCheck-Viewer a Focal Point for Health Check and Inspection findings.

5.6.6 *Settings and Definitions*

Definitions and Settings give you access to Import/Export Migration Tools that assist you in moving to new and/or enhanced releases of Image FOCUS. In addition, you will find options that allow you to build Custom Inspectors and Custom Reports.

5.6.7 *Functional Notices*

In addition to the options provided on the Primary Menu, you will also find the following Functional Notices:

```
*****
* Control Task: RUNNING *
* Recovery      : RUNNING *
*****
```

5.6.7.1 Control Task

The started task BACKGROUND (IFOBG) is the platform from which all Inspection and Monitoring activity is run. Knowing that it is functional and running is critical. To ensure that you are informed of its status, this notice is updated each time you enter the Primary Menu. If the Background is "DOWN", you should go directly to the Production View. Select the Status Monitor Option to determine the reason why; it is recommended that IFOBG be run continuously.

5.6.7.2 Recovery

The started task, IFOR, provides access to Image FOCUS and other vital system resources and tools for System Recovery. It is recommended that IFOR run continuously. To keep you informed of its status, this notice is updated each time you enter the Primary Menu. If the IFOR is "DOWN", you must restart it in order to gain access to the NoTSO Recovery View via the IFOR Address Space.

5.7 Operational Considerations

5.7.1 *Starting Image FOCUS*

One or more Image FOCUS IFOR or IFOM started tasks can be started from the Master Console or automatically started as part of an automated IPL process, becoming fully functional after the IPL, but before any other subsystems are started.

5.7.2 *Automated Operations*

To use Image FOCUS as part of the normal MVS startup, users need only to insert the necessary Image FOCUS control statements in their MVS IPL SYS1.PARMLIB(s). After the successful startup of the full system (i.e., MVS and all subsystems), Image FOCUS IFOR may be suspended or remain active, as it may be required for Image monitoring.

5.7.3 *Continual Operations*

It is recommended to start IFOR and IFOM with the intent to run continually. It is not necessary for you to start IFOBG as it is automatically started and stopped as needed to perform background-processing tasks.

6 Product Installation

New Release Analysis is one of several applications that execute within the Integrity Controls Environment (ICE). To install ICE and activate New Release Analysis, please refer to the **ICE Installation and Configuration User Guide**, a link to which may be found on this page of the NewEra website:

<https://www.newera-info.com/Docs.html>

7 Workbench View

The Workbench Primary Menu provides access to functions that will assist you in your everyday activities of supporting and enhancing your Sysplex/Images. Here you can Inspect existing configurations, determine the impact that a new operating system release will have on your workload, inherit the existing production Sysplex/Image for your workgroup, access the Inspection Report archive, set your workbench options, and configure the internal email client.

```

Option  ==>      Image Focus - Workbench Selections

  I   Inspect      - SYSPLEX/IMAGE Inspection      Userid   - PROBI2
  IR  Inspect/R    - Inspection w/Release Level    Time     - 16:19
  A   Actions      - Copy Controlled Image Definitions  Terminal - 3278
  Y   Component    - Single Component Inspection      System   - S0W1
  R   Reports      - Inspection Reports              Applid   - IFOT
  O   Options      - Workbench Options              Image Focus 16.0
  N   Notify       - User Inspection Notification Settings Patch Level 000
  X   Exit         - Return to the ICE Primary Menu

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Our Job? Help you make repairs, avoid problems, and improve IPL integrity.

```

7.1.1 Working with an Image

Working with an Image allows you to bypass the Inspection of the complete Sysplex and focus on a single Image. Think of it as your "Personal Sandbox". To Work with an Image, place a "W" before the Image Name in the "System Inspection Selection" Panel and press enter. This action will immediately display the "Single Image Inspection" Panel displaying the Image and System names, IPL and LOADParms and the date, time and results of the last Image Inspection Report.

Working with a Selected Image

```

Image Focus - Single Image Inspection      Row 1 to 1 of 1
COMMAND ==>                               SCROLL ==> PAGE

Line Commands
General:      S - Select  X - Inspect Now  C - Compare  N - Index
Running System: U - Use Host IPL Parms      Y - Dynamic Audit

LINE  IMAGE      SYS      IPL      LOAD      ----- Inspection Result -----
CMD   NAME       NAME     ADDR   PARM      DATE       TIME       RESULT
..   IMAGWEB1    S0W1     1000   0CE3W1.1  08/29/2019 09:24    ERROR
***** Bottom of data *****

```

Using the Available Line Commands you can Select and modify an Image Definition, Execute an Inspection, Compare the current system configuration to a stored Blueprint, or Compare the current definitions of the LPALst, LNKLst & APFLst to those specified in the PROGxx or LNKLSTxx member(s).

7.1.2 Image Definition

To Select an Image and display its definition, place an "S" on the Command Line that appears before the Image Name and press enter. This will display the Image Definition Panel for a Single Image. An Image Definition defines the parameters that Image FOCUS will pass to the Inspection Server when you request an Inspection.

```

Image Focus - Define Image for Single Image Inspection
COMMAND ==>
IMAGE NAME      ==> IMAGWEB1      (USER ASSIGNED NAME -
                                   UP TO EIGHT CHARACTERS; DEFAULTS
                                   TO MVS SYSTEM NAME WHEN FOUND)
MVS IPL INPUT
MVS IPL ADDRESS ==> 1000          (FOUR DIGITS)
MVS LOAD PARM   ==> 0CE3W1.1     (UP TO EIGHT CHARACTERS)
SYSCAT SUFFIX   ==>              (IEA347A SPECIFY MASTER CATALOG PARAMETER)
IEASYS00 SUFFIX ==>              (IEA101A SPECIFY SYSTEM PARAMETERS)
ADD'L COMMNDxx ==> CG           (SEE DOCUMENTATION)
FILTERING INPUT
HARDWARE NAME   ==> VM-TOKEN     (PROCESSOR NAME)
LPAR NAME       ==>             (LPAR NAME)
VM USERID       ==> ETPGMLN     (MVS VM USERID)
ADD'L PARMLIB INPUT (Concatenated in front of LOADxx Parmlibs)
DATASET ==>
INSPECTION AREA  ---System--- ----Subsystems----- -Supplemental- --Custom--
PROCESSING OPTIONS OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS PLCY CST1 CST2
INSPECTION      ==>      Y      Y      Y      N      Y      Y      Y      Y      N      N      N

```

Note that these are "Local Definitions" and therefore changes to them will have no effect on those definitions that define Images that have been promoted to Production. Once you have defined an Image for Inspection, press enter to begin the Image Inspection. When the Inspection is complete, the Image Index is displayed. Use the various Index Line Commands to display the various sections of the Inspection Report.

Each element of the Image Definition was discussed in detail earlier in this chapter.

7.1.2.1 ADD'L PARMLIB INPUT

One field of the Image Definition that is unique to "Working With an Image" is "ADD'L PARMLIB INPUT". Use this field to enter the name of a dataset that you would like to have Image FOCUS concatenate BEFORE those found in the LOADxx member. Such an entry would result in the following additional message appearing immediately before the ParmLib Concatenation process notices within an Image Inspection Report:

IFO0617I SYS1.ADCD10.PARMLIB.TEST ON VOLUME OS39RA IS AN ALTERNATE PARMLIB

By default, your TSOUSERID is appended as the first HLQ of the dataset name entered. If you want to specify an absolute dataset name without this qualification, precede and end the name with a single quote. Of course, you will have to allocate and populate this additional dataset with the members you want to work with. If the dataset is invalid or not found, Image FOCUS will bypass this additional dataset in the concatenation of those parmlib datasets specified in LOADxx.

7.1.2.2 Execute Now

To update the Inspection Report, place an "X" on the Command Line and press enter. This action will immediately cause Image FOCUS to pass the Image Definition to the Inspection Server and request that the Defined Processing Options be performed.

7.1.2.3 Compare

A static change is one that occurs in a PARMLIB member or subsystem configuration file. Image FOCUS isolates these changes by comparing the contents of a newly created Blueprint against one you will select from a list of stored Packages. To begin the process of identifying Static Changes, place a "C" on the selection line for the target Image and press enter. This action will immediately cause Image FOCUS to pass the Image Definition to the Inspection Server and request that the Defined Processing Options be performed and a new Blueprint be created. When the Inspection ends and the new Blueprint is available, it will be held in memory and the Stored Package Index List will be displayed. You may select from any of the entries displayed in the list. This flexibility allows you to compare the configuration of the Image you are working with against the same or other Images as needed.

```

Image Focus - Stored Package Index
COMMAND ===> Row 1 to 7 of 7
SCROLL ===> PAGE

IMAGE PACKAGE INDEX DATASET: IFO.IFOT.PACKAGE.INDEX
VOLSER: VPWRKG

USING THE SELECTION LISTS THAT FOLLOW, SELECT THE SYSTEM IMAGE BY NAME
AND THEN SELECT THE DATE OF THE IMAGE PACKAGE FOR WHICH TO BROWSE.

CMD    IMAGE    VOLUME    DSNAME

..     IMAGCLG1  VPWRKG    IFO.IFOT.PACKAGE.IMAGCLG1
..     IMAGCLG2  VPWRKG    IFO.IFOT.PACKAGE.IMAGCLG2
..     IMAGTST1  VPWRKG    IFO.IFOT.PACKAGE.IMAGTST1
..     IMAGTST2  VPWRKG    IFO.IFOT.PACKAGE.IMAGTST2
..     IMAGTST3  VPWRKG    IFO.IFOT.PACKAGE.IMAGTST3
***** Bottom of data *****

```

To select an Index, place an "S" on the Command Line and press enter. This action will immediately display the List of Members associated with the selected Index. Note that the "Name" of each Member after the "F" prefix is in the date format YYMMDD.

```

Image Focus - Select Stored Package
COMMAND ==> Row 1 to 12 of 12
              SCROLL ==> PAGE

IMAGE PACKAGE DATASET: IFO.IFOT.PACKAGE.IMAGWEB1
VOLSER: VPWRKG

Line Commands: S - Select Package  R - Select Report

CMD   Date      Result  ----- Report Data Set Name -----
..    07/21/19    E      IFO.IFOTBG.REPORT.D2017203.T1337229
..    07/21/19    E      IFO.IFOTBG.REPORT.D2019203.T1626101
..    07/22/19    E      IFO.IFOTBG.REPORT.D2019204.T1555024
..    07/23/19    E      IFO.IFOTBG.REPORT.D2019205.T1624090
..    07/30/19    E      IFO.IFOTBG.REPORT.D2019212.T1635241
..    08/06/19    E      IFO.IFOTBG.REPORT.D2019219.T1121305
..    08/07/19    E      IFO.IFOTBG.REPORT.D2019220.T1127271
..    08/08/19    E      IFO.IFOTBG.REPORT.D2019221.T1134020
..    08/12/19    E      IFO.IFOTBG.REPORT.D2019225.T1204333
..    08/13/19    E      IFO.IFOTBG.REPORT.D2019226.T1049394
..    08/15/19    E      IFO.IFOTBG.REPORT.D2019228.T1104356
..    08/19/19    E      IFO.IFOTBG.REPORT.D2019232.T1133595
***** Bottom of data *****

```

To select a Blueprint, place an "S" on the Command Line and press enter. This action will cause Image FOCUS to extract the IPLParms from the New and Selected Blueprint and display the Compare Confirmation Screen. The "OLD IPL Parameters" are from the Selected Blueprint. The New IPL Parameters are from the Newly Created Blueprint. You should visually compare these to be certain that the Images are, if fact, comparable.

```

Image Focus - Compare Confirmation

COMMAND ==>

IMAGE COMPARISON WILL NOW COMPARE THE CONTENTS OF THE SELECTED
PARAMETER LIBRARIES.

----- Old IPL Parameters ----- ----- New IPL Parameters -----
DATE:                08/15/19      DATE:                08/19/19
IMAGE NAME:          IMAGWEB1      IMAGE NAME:          IMAGWEB1
IPL ADDRESS:         1000          IPL ADDRESS:         1000
LOAD PARM:           0CE3W1.1      LOAD PARM:           0CE3W1.1
SYSCATxx SUFFIX:     SYSCATxx      SYSCATxx SUFFIX:     SYSCATxx
IEASYSxx SUFFIX:     IEASYSxx      IEASYSxx SUFFIX:     IEASYSxx
HWNAME:              VM-TOKEN      HWNAME:              VM-TOKEN
LPARNAME:             ETPGMLN      LPARNAME:             ETPGMLN
VMUSERID:             ETPGMLN      VMUSERID:             ETPGMLN

IF OLD AND NEW IPL PARAMETERS ARE DIFFERENT THEN THEY MAY BE THE
CAUSE OF DIFFERENCES THAT THIS COMPARISON WILL NOT DETECT.

PRESS ENTER TO BEGIN THE COMPARISON

```

If the Old and New Parameters indicate that the Images are, in fact, comparable, press enter to begin and display the Image Compare Summary Screen. The Image Compare Summary Screen contains the member name, the compare results, and the dataset name/volume serial where the original member resided.

```

Image Focus - Image Comparison Summary
COMMAND ===> Row 1 to 34 of 34
SCROLL ===> PAGE

Line Commands: S- Compare Details BN- Browse New EN- Edit New
BO- Browse Old EO- Edit Old

SELECT ONE MEMBER BELOW:
CMD MEMBER STATUS VOLUME DSNNAME
.. LOADW8 SAME Z8SYS1 SYS1.IPLPARM
.. IEASYM00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEASYS00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEASYSW8 SAME USR001 USER.PARMLIB
.. IEASVC00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. PROG00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. PROGNE SAME USR001 USER.PARMLIB
.. IEAFX00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEALPA00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEAPAK00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. LPALST00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. DIAG00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEAABD00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEADMP00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEADMR00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. COUPLE00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. GRSCNF00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IGDSMS00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IFAPRD00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IFAPRD01 SAME Z8RES1 ADCD.Z112.PARMLIB
.. CONSOL00 SAME USR001 USER.PARMLIB
.. IEFSSN02 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEFSSN00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. CLOCKNE SAME USR001 USER.PARMLIB
.. MSTJCLW8 SAME USR001 USER.PARMLIB
.. IEACMD00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. COMMNDW8 SAME USR001 USER.PARMLIB
.. COMMNDCG SAME USR001 USER.PARMLIB
.. SCHED00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. VATLSTW8 SAME USR001 USER.PARMLIB
.. BPXPRMW8 SAME USR001 USER.PARMLIB
.. IKJTSO00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. SMFPRM00 SAME Z8RES1 ADCD.Z112.PARMLIB
.. IEAAPP00 SAME Z8RES1 ADCD.Z112.PARMLIB
***** Bottom of data *****

```

The compare results will be one of the following conditions:

- SAME -New and Old members are the same
- DIFFERENT -New and Old members are different
- MISSING -Members don't exist in both packages
- ERROR -Error in the compare utility

To view the detailed differences between two Blueprint Members, place an "S" before the Member name and press enter. This will cause Image FOCUS to invoke the ISPF "Super Compare" utility, which in turn will display a detailed comparison report.

```

BROWSE      SYS07172.T110012.RA000.IFOTS.R0100558      Line 00000000 Col 001 080
Command ==>                                           Scroll ==> PAGE
***** Top of Data *****
ISRSUPC - MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS07172.T110012.RA000.IFOTS.R0100557(PROG00)      OLD: SYS07172.T1100

                LINE COMPARE SUMMARY AND STATISTICS

130 NUMBER OF LINE MATCHES                0 TOTAL CHANGES (PAIRED+NONPAIRED)
  0 REFORMATTED LINES                    0 PAIRED CHANGES (REFM+PAIRED INS)
  0 NEW FILE LINE INSERTIONS              0 NON-PAIRED INSERTS
  0 OLD FILE LINE DELETIONS               0 NON-PAIRED DELETES
130 NEW FILE LINES PROCESSED
130 OLD FILE LINES PROCESSED

LISTING-TYPE = DELTA      COMPARE-COLUMNS = 1:80      LONGEST-LINE = 80
PROCESS OPTIONS USED: NOSEQ

***** Bottom of Data *****

```

To display a Blueprinted Member in ISPF Browse, use the Line Commands "BN" (for the New Blueprint) or "BO" (for the OLD Blueprint).

A Dynamic Change is one that occurs when the content of memory for LNKList, APFLst or LPALst varies from the content of the member that would be used to re-IPL the named Image. To test for dynamic changes, place a "Y" on the selection line for the target Image and press enter. This action will immediately cause Image FOCUS to pass the Image Definition to the Inspection Server and request that the Defined Processing Options be performed and a new Blueprint be created. When the Inspection is complete and the Blueprint is available in memory, the Dynamic Change Summary screen is displayed.

```

                                Image Focus - Dynamic Change Summary      Row 1 to 4 of 4
COMMAND ==>                                           SCROLL ==> PAGE

Line Commands:  S - Compare Details    BN - Browse Running System Data
                BO - Browse Inspection Data

SELECT ONE MEMBER BELOW:
CMD  MEMBER      STATUS
..   LNKLIST      SAME                *LNKLST*
..   APFLST       * DIFFERENT *        *APFLST*
..   LPALST       * DIFFERENT *        *DYNLPA*
..   SYMLST       SAME                *SYMLST*
***** Bottom of data *****

```

To view the detailed differences between two Blueprint Members, place an "S" before the Member name and press enter. This will cause Image FOCUS to invoke the ISPF "Super Compare" utility, which in turn will display a detailed comparison report.

```

BROWSE      SYS08242.T095905.RA000.IFOTS.R0101442      Line 00000000 Col 001 080
Command ==>                                           Scroll ==> PAGE
***** Top of Data *****
ISRSUPC - MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS08242.T095905.RA000.IFOTS.R0101441 (COMMNDGC)      OLD: SYS08242.T0959

          LISTING OUTPUT SECTION (LINE COMPARE)

ID          SOURCE LINES
-----+-----1-----2-----3-----4-----5-----6-----7-----+--
I - COM='S TCPIP'
D - COM='S TCPIP'

ISRSUPC - MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS08242.T095905.RA000.IFOTS.R0101441 (COMMNDGC)      OLD: SYS08242.T0959

          LINE COMPARE SUMMARY AND STATISTICS

2 NUMBER OF LINE MATCHES                      1 TOTAL CHANGES (PAIRED+NONPAIRED)
0 REFORMATTED LINES                          1 PAIRED CHANGES (REFM+PAIRED INS)
1 NEW FILE LINE INSERTIONS                   0 NON-PAIRED INSERTS
1 OLD FILE LINE DELETIONS                    0 NON-PAIRED DELETES
3 NEW FILE LINES PROCESSED
3 OLD FILE LINES PROCESSED

LISTING-TYPE = DELTA      COMPARE-COLUMNS = 1:80      LONGEST-LINE = 80
PROCESS OPTIONS USED: NOSEQ

***** Bottom of Data *****

```

To display a Blueprinted Member in ISPF Browse, use the Line Commands "BN" (for the Running System) or "BO" (for the Inspection Data).

7.1.2.4 Index Report

To display the Report Index for the last Inspection, place an "N" on the Command Line and press enter. This action will immediately cause Image FOCUS to locate the last Inspection Report, build a Report Index and display the Report Index as a scrollable table sorted by Inspection Results so the most severe problems are shown at the top of the Index.

7.1.3 Re-Discovery

As the Sysplex for the Running System (the Sysplex Image FOCUS is installed on) may have been modified, it is advisable to refresh the screen by placing an "F" next to the Sysplex name and pressing enter. This action will invoke "Re-Discover" and update the Screen with the latest Sysplex/Image information for the running system -the system Image FOCUS is installed on.

7.1.3.1 Operational Considerations

Care should be taken in using the Re-Discovery "F" line command once new System Images have been added or old Images deleted. Using "F" will WIPE OUT the current Image List, replacing it with only those Images discovered as part of the Sysplex in which Image FOCUS is running.

7.1.4 Report INDEX

Placing an "N" on the command line next to the name of a specific Sysplex or Image and pressing enter will display the Inspection Index for the selection.

7.1.5 Adding an Image

To add an Image to an existing Sysplex, place the cursor on the command line before the Sysplex Name, enter "I" or "R" and press enter. This action will immediately insert a new row below the selected Sysplex. This is the place marker for your new Image. Now select the Image using the "S" line command and press enter. This will display the Image Definition Panel.

7.1.6 Creating a New Sysplex

To create a New Sysplex, place "IX" on any line command and press enter. This will cause a new Sysplex to appear below the line selected. Note that care should be taken when doing this as selecting a command line within the Images of an existing Sysplex will split the existing Images between the existing and new Sysplex. Once the Sysplex is added, place an "I" on its command line to add an Image. Repeat the process using either the "I" or "R" until you have added all the required Images. Each Image added will need to be defined before an Inspection can be requested.

7.1.7 Cloning an Image

To clone an Image to an existing Sysplex, place the cursor on the command line before the Image Name, enter "R" and press enter. This action will immediately insert a new duplicate row below the selected Image. This is the place marker for your new Image Clone. Now select the Image using the "S" line command and press enter. This will display the Image Definition Panel.

7.1.8 Cloning a Sysplex

To Clone a Sysplex, place the “R” on the command line before a Sysplex name and press enter. This will cause a Clone Sysplex with Images to appear at the bottom of the selection list. If necessary, select each Image using the “S” line command to display the Image Definition Panel and update the Image Definition as needed.

7.2 Release Inspection

In order to take full advantage of the latest in processing power and software function, it is often necessary to upgrade to a new release of the Operating System and/or its Subsystems. Image FOCUS is designed and programmed to “Understand” these Release Changes and their potential impact on the Sysplex/Image and Subsystem Configurations.

7.2.1 New Release Support

As IBM makes new Release Announcements, it will often release certain documentation that can be used to evaluate the impact that the anticipated release will have on existing Systems. NewEra believes that such documentation will generally be available 1 - 2 months before the new release becomes available and is committed to providing support for the new release on or about its actual release date. All Image FOCUS Inspectors provide same day support for new releases and are up-to-date through z/OS V2R4.

7.2.2 Image Selection

New Release Analysis at the Image Level begins by selecting an Image from the list of available Images presented in the Release Inspection Selection Screen. To access this panel, use the IR command from the Main Workbench View.

```

Image Focus - Release Inspection Selection          Row 1 to 2 of 2
COMMAND ==>                                       SCROLL ==> PAGE

Line Commands: S - Select  X - Run Sysplex Inspection  W - Work with an Image
F - Rediscover Sysplex Images (running system)
N - Report Index (Browse, Print, Mail, Reports)
I - Insert Image  IX - Insert Sysplex  D - Delete  R - Repeat

LINE -- ENTRY --   SYS(PLEX) IPL  LOAD   REL  ----- LAST INSPECTION -----
CMD TYPE NAME      NAME  ADDR  PARM   LVL   DATE      TIME      RESULT
..   S  PROD0001  SVSCPLEX
..   I  IMAG0001  SOW1    1000 0CE3W1.1  109
***** Bottom of data *****

```

7.2.2.1 Line Commands

The Line Command Options available on the Release Inspection Selection Panel are the same as those found on the Image Inspection Selection Panel. For a full description of these Line Commands, see section 3.1 of this document - Sysplex/Image Inspection. In this section, the SELECT Line Command "S" will be discussed.

7.2.2.2 Selecting an Image

To Select an Image, place an "S" next to its name and press enter. This action will immediately display the Define Image for Release Inspection panel.

```

Image Focus - Define Image for Release Inspection

COMMAND ==>
                                     (USER ASSIGNED NAME -
IMAGE NAME      ==> IMAG0001          UP TO EIGHT CHARACTERS)

MVS IPL INPUT
MVS IPL ADDRESS ==> 1000              (FOUR DIGITS)
MVS LOAD PARM   ==> 0CE3W1.1         (UP TO EIGHT CHARACTERS)
SYSCAT SUFFIX   ==>                  (IEA347A SPECIFY MASTER CATALOG PARAMETER)
IEASYS00 SUFFIX ==>                  (IEA101A SPECIFY SYSTEM PARAMETERS)
ADD'L COMMNDxx ==>                  (SEE DOCUMENTATION)

FILTERING INPUT
HARDWARE NAME   ==> VM-TOKEN         (PROCESSOR NAME)
LPAR NAME       ==>                 (LPAR NAME)
VM USERID      ==> ETPGMQC          (MVS VM USERID)

PROCESSING OPTIONS OPSYS DSRPT JES2 JES3 VTAM TCPS LOAD MBRS PLCY CST1 CST2
INSPECTION       ==>   Y   Y   N   N   N   N   N   N   N   N   N   N
RELEASE LEVEL    ==>   204          204 204 204 204 204 204 204 204 204
CONSOLE ENHANCE  ==>   N           (Console Enhancements Feature for V1R4 only)

Release Levels:   106- V1R6  109- V1R9  112- V1R12  202- V2R2
                  107- V1R7  110- V1R10 113- V1R13  203- V2R4
                  108- V1R8  111- V1R11 201- V2R1   204- V2R4

```

7.2.2.3 Release Level

To Inspect an Image and/or its Subsystems at varying release levels, set the numeric value of the Release Level to the 3-digit number that corresponds with the desired Release Level and press enter. This action will immediately begin an inspection and display an Inspection Report.

7.2.3 Working with an Image

Working with an IMAGE allows you to bypass the Inspection of the complete Sysplex and focus on a single Image. Think of it as your "Personal Sandbox". To Work with an Image, place a "W" before the Image Name in the "System Inspection Selection" Panel and press enter. This action will immediately display the "Single Image Inspection" Panel showing the Image and System names, IPL and LOADParms and the date, time and results of the last Image Inspection Report.

```

Image Focus - Single Image Inspection
Row 1 to 1 of 1
COMMAND ==> SCROLL ==> PAGE

Line Commands
General:      S - Select  X - Inspect Now  C - Compare  N - Index
Running System: U - Use Host IPL Parms      Y - Dynamic Audit

LINE  IMAGE      SYS      IPL  LOAD      ----- Inspection Result -----
CMD   NAME        NAME    ADDR  PARM        DATE      TIME      RESULT
..   IMAGWEB1    SOW1     1000  OCE3W1.1    08/29/2019 09:56    ERROR
***** Bottom of data *****

```

Using the Available Line Commands, you can Select and modify an Image Definition, Execute an Inspection, Compare the current system configuration to a stored Blueprint, or Compare the current definitions of the LPALst, LNKLst & APFLst to those specified in the PROGxx or LNKLSTxx member(s).

7.2.3.1 Image Definition

To Select an Image and display its definition, place an "S" on the Command Line that appears before the Image Name and press enter. This will display the Image Definition Panel for a Single Image. An Image Definition defines the parameters that Image FOCUS will pass to the Inspection Server when you request an Inspection.

```

Image Focus - Define Image for Single Image Inspection
COMMAND ==>

IMAGE NAME      ==> IMAGWEB1      (USER ASSIGNED NAME -
                                   UP TO EIGHT CHARACTERS; DEFAULTS
                                   TO MVS SYSTEM NAME WHEN FOUND)

MVS IPL INPUT
MVS IPL ADDRESS ==> 1000          (FOUR DIGITS)
MVS LOAD PARM   ==> OCE3W1.1     (UP TO EIGHT CHARACTERS)
SYSCAT SUFFIX   ==>              (IEA347A SPECIFY MASTER CATALOG PARAMETER)
IEASYS00 SUFFIX ==>              (IEA101A SPECIFY SYSTEM PARAMETERS)
ADD'L COMMNDxx ==> CG            (SEE DOCUMENTATION)

FILTERING INPUT
HARDWARE NAME   ==> VM-TOKEN     (PROCESSOR NAME)
LPAR NAME       ==>              (LPAR NAME)
VM USERID       ==> ETPGMLN     (MVS VM USERID)
ADD'L PARMLIB INPUT
DATASET         ==>              (Concatenated in front of LOADxx Parmlibs)

INSPECTION AREA  ---System--- ---Subsystems----- -Supplemental- --Custom--
PROCESSING OPTIONS OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS PLCY CST1 CST2
INSPECTION      ==>      Y      Y      Y      N      Y      Y      Y      Y      N      N      N

```

Note that these are "Local Definitions" and therefore changes to them will have no effect on those definitions that define Images that have been promoted to Production. Once you have defined an Image for Inspection, press enter to begin the Image Inspection. When the Inspection is complete, the Image Index is displayed. Use the various Index Line Commands to display the various sections of the Inspection Report. Each element of the Image Definition was discussed in detail earlier in this chapter.

7.2.3.2 ADD'L PARMLIB INPUT

One field of the Image Definition that is unique to “Working with an Image” is “ADD'L PARMLIB INPUT”. Use this field to enter the name of a dataset that you would like to have Image FOCUS concatenate BEFORE those found in the LOADxx member. Such an entry would result in the following additional message appearing immediately before the ParmLib Concatenation process notices within an Image Inspection Report:

```
IFO0617I SYS1.ADCD10.PARMLIB.TEST ON VOLUME OS39RA IS AN ALTERNATE PARMLIB
```

By default, your TSOUSERID is appended as the first HLQ of the dataset name entered. If you want to specify an absolute dataset name without this qualification, precede and end the name with a single quote. Of course, you will have to allocate and populate this additional dataset with the members you want to work with. If the dataset is invalid or not found, Image FOCUS will bypass this additional dataset in the concatenation of the parmlib dataset specified in LOADxx.

7.2.3.3 Duplicate Line Commands

The remaining Line Commands available from this panel and their function duplicate those explained in detail in this Users Guide in the Section titled Sysplex/Image Inspection - Working with an Image.

7.3 Actions

The "Actions" Option will automatically discover and display the "Current Production Inspection Definitions" and compare them to the users "Current Workbench Inspection Definitions". From the Production entries shown in the Copy Controlled Definitions panel, new or existing members in an Image FOCUS Workgroup may access and copy (inherit) these into their Workbench.

Image Focus - Copy Controlled Definitions										Row 1 to 15 of 15
COMMAND ==>										SCROLL ==> PAGE
Line Commands: C - Copy										CR - Copy w/replace
Controlled					-----> Workbench					
LINE	--	ENTRY	--	SYS (PLEX)	IPL	--	ENTRY	--	SYS (PLEX)	IPL
CMD	TYPE	NAME		NAME	ADDR	TYPE	NAME		NAME	ADDR
..	S	PROD0001		SVSCPLEX						
..	I	IMAGWEB1		SOW1	1000					
..						S	PROD0001		SVSCPLEX	
..						I	IMAGWEB1		SOW1	1000
..	S	PROD0002		SVSCPLEX						
..	I	IMAGCLG1		SOW1	1000					
..	I	IMAGCLG2		SOW1	1000					
..						S	PROD0002		SVSCPLEX	
..						I	IMAGCLG1		SOW1	1000
..						I	IMAGCLG2		SOW1	1000
..						S	PROD0005		SVSCPLEX	
..						I	IMAGTST1		SOW1	1000
..						I	IMAGTST2		SOW1	1000
..						I	IMAGTST3		SOW1	1000
..						I	IMAGTST4		SOW1	1000
***** Bottom of data *****										

7.3.1 Production Entries

The entries shown in the left most columns are derived from the shared Image FOCUS Settings that define the current set of Production Sysplex/Image(s). If you wish to Copy a Sysplex/Image Group, place the Line Command selection character "C" before the Sysplex Entry Name and press enter. The entire Group will be Copied from Production and the panel redisplayed. You will notice that the selected entry will no longer appear in the Production Column. If you wish to redisplay/refresh the panel, PFK3 out to the Workbench View Main Menu and reselect the "ACTIONS" Option. This will redisplay the Copy Controlled Definitions panel with all columns fully populated.

7.3.2 Workbench Entries

The entries shown in the right most columns are derived from your Workbench and are shown, for information purposes only, in related Sysplex/Image Groups. Line Commands will not function with these entries and should they be used, Image FOCUS will display the message, "Invalid Line Command".

7.4 Component Inspection

The images in a Sysplex are created from the parameters that define the configurations of an Operating System and its related Subsystems; JES2, JES3, VTAM and TCP/IP. In both Sysplex and Image Inspection, the inspection of one or all of the subsystems can be optionally requested. When such a “Full Inspection” is run, the location of the start-up files and symbolic values needed by the subsystem is automatically determined by Image FOCUS during the OPSYS Inspection or from the Additional COMMNDxx specified in the Image Definition. While this processing methodology simplifies the knowledge needed to run a “Full Inspection”, it does not address the organizational issues of different technical groups supporting different elements of the Sysplex and/or Image nor does it address the Unit Testing requirements of individual organizations. The Subsystem Inspectors are designed to allow those with a need to access only VTAM, for example, to define and test only VTAM with no concern for the operations of, for example, JES2, TCP/IP or CICS.

7.4.1 *Re-using a Component Definition*

In the Workbench View Menu, enter the "Y" option on the command line and press enter. This action will display the Single Component Inspection screen. This screen displays a list of defined Component Inspectors.

7.4.1.1 Inspection Notes

- Inspects the selected item without inspecting the whole Operating System;
- Uses the running system libraries (LINKLIB, LPALIB, etc.);
- Uses the running system Systems Symbol definitions;
- Uses the running system Parmlib concatenation for includes from the system Parmlib;
- Inspection of Parmlib member IEAOPTxx will always be in GOAL mode.

To select a Component Inspector, type it into the Component Type field and press enter. This action will immediately display the Subsystem Inspection Definition Screen.

7.4.1.2 Component Inspection Definition

The Component Definition Screen shows the Inspector Type, the state of certain optional Inspection settings and the name of the source configuration file to be inspected.

```

                                Image Focus Single Component Inspection
COMMAND ===>

Component Type ==>                (PARMLIB, JES2, JES3, VTAM,
                                   TCP/IP, TCPDATA, RESOLVER, TELNET,
                                   FTP, SMTP, OMROUTE, CICS,
                                   LOAD, MBRS, CSDS, CUST1, CUST2)

-----
Inspection Notes:

* Inspects the selected item without inspecting the whole Operating System.

* Uses the running system libraries (LINKLIB, LPALIB, etc.).

* Uses the running system Systems Symbol definitions.

* Uses the running system Parmlib concatenation for includes from the system
  Parmlib.

* Inspection of Parmlib member IEAOPTxx will always be in GOAL mode.

```

For component inspections spanning multiple source datasets and requiring dataset concatenation, the source definition fields are scrollable - allowing for up to 16 dataset names. The LOAD and OTHER definition fields are scrollable and allow for additional source dataset names.

Changes can be made at any time to these definitions which will be automatically saved as you PFK3 back to the prior screen. Once satisfied with the settings, press enter. This action will immediately begin the defined Inspection. When the Inspection is complete, the Inspection Report is displayed in ISPF Browse.

7.4.2 *Report Selection Options*

Existing Reports can also be selected from the list using the following Optional Line Commands:

7.4.2.1 Browse

Enter "B" to Display the last Report.

7.4.2.2 Delete

Enter "D" to Delete the last Report and the Inspection Definition.

7.4.2.3 Mail

Enter "M" to Mail the last Report.

7.4.2.4 Print

Enter "P" to Print the last Report.

7.5 Workbench Reports

All Inspection Reports created in the Workbench View are accessed via the Inspection Report Selection Menu. Select R from the main Workbench panel to access this panel. Once in this Menu, select one of the four report classes and press enter. This action will immediately display a list of the available selected Reports in the Image Report Operations Screen.

```

Image Focus - Inspection Report Selection
Option ==>

FX  Workbench  - SYSPLEX/IMAGE Inspection      Userid  - DEMO2
FR  Workbench  - Release Inspection             Time    - 17:12
FI  Workbench  - Single Image Inspection        Terminal - 3278
FY  Workbench  - Single Component Inspection    System  - S0W1
                                           Applid  - IFOT
                                           Image Focus 16.0
                                           Patch Level 000

X   Exit      - Return to the previous menu

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```

7.5.1 Image Report Operations

Regardless of the Report Class selected, the format for displaying the available reports and Line Commands are the same. To select a report from the list, place a Line Command on the selection line immediately preceding the desired report and press enter. This action will immediately select the desired report and execute the selected command.

```

Image Focus - Report Inventory                      Row 1 to 29 of 29
COMMAND ==>                                       SCROLL ==> PAGE
                                           Workbench Single Image
Line Commands: S - Select Report  D - Delete Report  DF - Delete Force
                                           DATA SET NAME
CMD DATE      TIME  NAME      CLUST  ITEMS  RESULT  PROBI2.IFO.REPORT.
.. 09/23/2019 12:51 IMAGWEB1 Y        1  ERROR  D2019266.T1251112
.. 09/23/2019 11:20 IMAGWEB1 Y        1  ERROR  D2019266.T1120431
.. 09/21/2019 09:15 IMAGWEB1 Y        1  ERROR  D2019264.T0915158
.. 09/18/2019 10:25 IMAGWEB1 Y        1  ERROR  D2019261.T1025464
.. 09/10/2019 11:41 IMAGWEB1 Y        1  ERROR  D2019253.T1141335
.. 09/08/2019 09:47 IMAGWEB1 Y        1  ERROR  D2019251.T0947054
.. 09/04/2019 10:50 IMAGWEB1 Y        1  ERROR  D2019247.T1050599
***** Bottom of data *****

```

7.5.2 Line Commands

To select a report, place the Command Character(s) on the "CMD" line in which the desired report appears and press enter. Available Commands include:

7.5.2.1 Select Report

If you are working with Sysplex/Image Inspections, Release Inspections or Single Image Inspections, the report selected will be displayed using the Report INDEX Interface. Using the available INDEX Line Commands, you select INDEX Entries to display the full report or segments thereof. If you are working with the Subsystem Inspection Report Inventory, selected reports will be displayed in ISPF Browse.

7.5.2.2 Delete Report

To delete a report, place a "D" or "DF" on the Command Line and press enter. This action will immediately delete the selected Report Dataset, refresh and redisplay the panel.

7.6 Workbench Options

Workbench Foreground Processes will generate Inspection Reports. The location and number of these reports is controlled using the Foreground Options Menu. You can access this panel by selection 'O' on the Workbench View Selections panel.

Image Focus - Workbench Options	
COMMAND ==>	SCROLL ==> PAGE
Sysplex Report Dataset:	Import/Export Dataset:
1st Level Index ==> &SYSPREF	1st Level Index ==> &SYSPREF
2nd Level Index ==> IFOSP	2nd Level Index ==> IFOWK
3rd Level Index ==> REPORT	3rd Level Index ==> IXPOT
Reports to keep ==> 15	
Sysplex Release Report Dataset:	Allocation for Workbench Sysplex Reports:
1st Level Index ==> &SYSPREF	CYLs Primary/Secondary ==> 2 / 2
2nd Level Index ==> IFORL	
3rd Level Index ==> REPORT	
Reports to keep ==> 15	
Single Image Report Dataset:	Allocation for Single Image Reports and
1st Level Index ==> &SYSPREF	Report processing work files:
2nd Level Index ==> IFO	CYLs Primary/Secondary ==> 1 / 1
3rd Level Index ==> REPORT	
Reports to keep ==> 15	
Component Report Dataset:	Allocation for Component Reports:
1st Level Index ==> &SYSPREF	CYLs Primary/Secondary ==> 1 / 1
2nd Level Index ==> IFOSS	
3rd Level Index ==> REPORT	
Reports to keep ==> 15	

7.6.1 *Report Dataset Naming*

Sysplex, Release, Single Image and Subsystem Inspection Reports can all be stored in independently named datasets. This is accomplished by using the values specified in the 1st, 2nd and 3rd Level Index Fields for each report class. Overtyping the default values to your individual or site standards, being certain to use only valid dataset naming characters.

You may use either &SYSPREF and/or &SYSUID as the value of the 1st, 2nd and/or 3rd Level Index.

In addition to these three definable qualifiers, Image FOCUS will add a fourth which denotes the "DATE" and a Fifth which denotes the "TIME" in naming and/or allocating the final report dataset.

7.6.1.1 Reports to Keep

To limit the number of Foreground Inspection report datasets, set this value to the desired limit. If the value is set to ZERO, all report datasets are kept.

7.6.1.2 Import/Export Dataset Naming

Image FOCUS definitions, settings and panels are stored in an independently named dataset during Import/Export operations. This dataset is named using the values you specify in the 1st, 2nd and 3rd Level Index Fields. Overtyping the default values to your individual or site standards, being certain to use only valid dataset naming characters.

7.6.1.3 Workbench Mail Settings

The Mail Option requires authorization to use TCP/IP services under OS/390 or z/OS by defining a RACF OMVS segment. Your installation may have a default OMVS segment defined and no further customization may be needed. If you receive an ICH408I message indicating that no OMVS segment was defined when running Mail functions, then the OMVS segment has not been set up properly.

7.6.1.4 Using the Mail Option

To configure or re-configure the User Inspection Notification Settings, select Notify (N) from the Image FOCUS Workbench View. The Notifications Settings Menu will appear.

```

Image Focus - User Notification Settings
COMMAND ==> SCROLL ==> PAGE

Mail Server      (Name or IP address of SMTP server)
==> MAIL.LIVEZONE.NET
From            (Email address)
==> SUPPORT@NEWERA.COM

Primary
Destination      (Email address)
==> CLG@NEWERA.COM
Secondary
Destination      (Email address)
==>
TCP/IP           (Name of TCP/IP service or blank for default service)
==>
Timeout          (Timeout in seconds for TCP/IP operations)
==> 060
SMTP Port        (Port for SMTP connection or blank for default port)
==>
Prompt          (Always prompt for for Mail Settings)
==> N (Y/N)

```

Enter or overwrite the values for the following mail configuration variables:

7.6.1.5 Mail Server

This is the fully qualified name of the SMTP server that will be used to send the mail.

7.6.1.6 From

This is the email address of the person, organization or server that is sending the mail or designated to receive acknowledgement. The IFO Report Server will automatically respond to this address with an “Acknowledgement” of receipt noting the success of the upload. In the event the Server is unable to complete the upload, it will note the reason for the failure in the acknowledgement.

7.6.1.7 Primary Destination

The Primary Destination or default destination of Inspection Reports sent using the “M” Function should be SUPPORT@NEWERA.COM, a NewEra Software monitored EMAIL ADDRESS. However, this value maybe overtyped with any valid email address.

7.6.1.8 Secondary Destination

The Secondary Destination may be any valid email address. Inspection Reports arrive embedded as text in the main body of the email and as an attached file.

7.6.1.9 TCP/IP

This is the name of the TCP/IP address space. It may be left blank if the default address is used.

7.6.1.10 Timeout

This is the value of the TIMEOUT in seconds that will be used as Image FOCUS waits for confirmation of contact with the receiving entities.

7.6.1.11 SMTP Port

This is the value of the port used for SMTP connection. Leave this field blank to use the default port number.

7.6.2 *Selecting and Sending Mail*

To send mail, you must select “M” from one of the panels or screens that support this option. As soon as enter is selected, the User Notifications Settings Screen is displayed overlaying the current Screen; the report is packaged as an attachment, a mail message is created and sent. The number of Records, actually the number of lines in the report, is counted as the report is sent. When the process is complete, select “EXIT” to close the Mail Processing Status Screen and return to the underlying menu or screen.

```
Timeout ==> 060 (Timeout in seconds for
TCP/IP operations)
Records Sent: XXXXX
Press END to EXIT
```

8 Definitions & Settings

Definitions and Settings give you access to Import/Export Migration Tools that assist you as you move to new releases of Image FOCUS and options that allow you to build Custom Inspectors and Reports.

8.1 Custom Inspectors and Applications

User-created or "Plug-in" applications that perform custom Inspection or Reporting tasks can be added dynamically as needed. To add an Inspector or Application, enter a "D" on the command line of the Main Menu and press enter. This action will display the Definitions & Settings Main Menu.

```

Image Focus - Definitions & Settings
Option  ===>

  C  Custom      - Define Inspectors & Applications
  M  Migrate     - Migrate Definitions & Settings

                                Userid   - DEMO2
                                Time     - 10:25
                                Terminal - 3278
                                System   - S0W1
                                Applid   - IFOT
                                Image Focus 16.0
                                Patch Level 000

X  Exit         - Return to the Image Focus Primary Menu

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```

8.1.1 Defining Custom Inspectors & Applications

A Custom Inspector is one of two unique inspectors you define (in addition to the LOAD Inspector) that can be included with and run inline with Sysplex, Image and New Release Inspections.

- A parm field from the JCL is passed to an inspector, and
- An "Include member from the system PARMLIB concatenation".

8.1.1.1 Custom Inspector Selection

Selecting option 'C' from the Definitions & Settings Menu will display the Custom Inspectors & Applications Selection Screen.

```

Image Focus - Custom Inspectors and Applications
Option ===>

  I  Inspectors    - Custom Inspectors
  A  Applications  - Custom Applications

Userid   - PROBI2
Time     - 10:50
Terminal - 3278
System   - S0W1
Applid   - IFOT
Image Focus 16.0
Patch Level 000

X  Exit          - Return to the Image Focus Primary Menu

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```

Selecting option 'I' from the Custom Inspectors & Applications Settings Menu will display the Custom Inspectors Selection Screen.

```

Image Focus - Custom Inspector Selection
COMMAND ===>
Row 1 to 5 of 5
SCROLL ===> PAGE

Line Commands: S - Select Definition  D - Disable (Clears Definition)

SELECT ONE OR MORE ITEMS BELOW:
LINE  INSPECTOR  STATUS
CMD  NAME
..  LOAD          ENABLED  LOAD MODULE INSPECTOR
..  MBRS          ENABLED  PDS MEMBER INSPECTOR
..  PLCY          ENABLED  POLICY INSPECTOR
..  CUST1         DISABLED
..  CUST2         DISABLED
***** Bottom of data *****
  
```

To define a Custom Inspector, place an "S" on the selection line before CUST1 or CUST2. To update the location of the installed LOAD Inspector that you have downloaded from the NewEra Web Site, place the "S" before the Inspector Name LOAD. Now press enter to display the Custom Inspector Definition Screen.

8.1.2 Custom Inspection Definition

Custom Inspector Definition Screen

```

                                Image Focus Define Custom Inspection
COMMAND ==>

Inspector Name   : CUST1           (Name of Inspector)
Inspector ID    : U3              (2-Character Inspector ID)
Inspector Title ==>
                                (1 to 32 Character Title)

Configuration File (Required)
Source DDNAME   ==>              (Configuration File DD in JCL)
V-Format Recs  ==> N             (Allow variable length records in source Y/N)
Sequential Type ==> N            (Source is sequential or PDS w/Member Y/N)

Setup (Optional)
Program Name    ==>              (PGM= in JCL of component to be inspected)
Panel Suffix    ==> 2            (Component Inspector panel suffix)

INSPECTION PROGRAM (Optional)
Load Module Name ==>
- OR -
Rexx Program Name ==>
Rexx Program Resides in:        (fully qualified Data Set Name)
Data Set Name ==>
Volume Serial ==>

```

To define a custom inspector, provide the required Name, ID and Inspector Title. Next, provide the name of the source dataset, its format and the optional program name (PGM=), if any, that will appear in the JCL used to start the subsystem that is the target of the inspector.

If a custom inspection application is written in assembler or REXX exits are to be used, place its program name in the appropriate Inspection Program Name field. PFK3 and the Custom Inspector Settings are saved and become available to the Sysplex, Image, Release and Subsystem Inspection Definition Screens.

8.1.3 Defining Custom Applications

User-created or "Plug-in" applications that generate Custom Report(s) can be added to Image FOCUS at any time and accessed directly via the Image FOCUS user interface.

8.1.3.1 Custom Report Selection

You may define up to seven Custom Applications. To add or modify a Custom Application Definition, select option A from the Custom Inspectors and Applications panel. This action will immediately display the Custom Application Selection Screen.

```

Image Focus - Custom Application Selection      Row 1 to 11 of 11
COMMAND ===>                                SCROLL ===> PAGE

Line Commands: S - Select Definition    D - Disable (Clears Definition)

SELECT ONE OR MORE ITEMS BELOW:
LINE  APPL      INDEX      REXX      STATUS
CMD   NAME      CMD        PGM
..  INDEX      SF         NSIMNDE  ENABLED  REPORT INDEX TOOLS
..  CREDIT      HS         NSIMCEA  ENABLED  CONTROL EDITOR TOOLS
..  ISNBASE     IB         ISNBASE  ENABLED  ISNBASE
..  ISNEDIT     ED         ISNEDIT  ENABLED  ISNEDIT
..  ISNDASD     DA         ISNDASD  ENABLED  ISNDASD
..  CUST1                          DISABLED
..  CUST2                          DISABLED
..  CUST3                          DISABLED
..  CUST4                          DISABLED
..  CUST5                          DISABLED
..  CUST6                          DISABLED
***** Bottom of data *****

```

8.1.3.2 Custom Application Definition

To define a Custom Application, put an S on the command line next to the Application you wish to define and press Enter. This action will display the Define Custom Application panel. Using this screen, you define to Image FOCUS the name, location, commands and points of entry that will be used to access the application that will be used to create the Custom Application.

8.1.3.3 Line Commands

The defined application/report can be called using one of six possible line commands from either foreground or background operations including the Inspection Report Index. The assigned commands **MUST** be represented by 2 UPPER CASE Characters.

```

                                Image Focus Define Custom Application
COMMAND ===>

Name      : CUST1              (Name of Application)
Title    ===>
                                (1 to 32 Character Title)

  APPLICATION PROGRAM
Line Command Chars:            (2 Character Line Commands)
  ===>    ===>    ===>    ===>    ===>    ===>
Rexx Program Name  ===>      (7 Characters)
Rexx Program Resides in:      (fully qualified Data Set Name)
  Data Set Name ===>
  Volume Serial ===>

  REPORTS
Indexed Report member select extracts full report? N  (Y/N)
Indexed Report members allowed:
  ===>    ===>    ===>    ===>
  ===>    ===>    ===>    ===>
  ===>    ===>    ===>    ===>
Inspection Reports allowed:  (Y/N)
  Workbench: Sysplex    ===> N      Sysplex Release ===> N
              Single Image ===> N      Component      ===> N
  Controlled: Sysplex    ===> N

```

8.1.4 Application Interface Examples

All custom Inspectors and/or Reports must be called by Image FOCUS via a REXX application.

8.1.4.1 Calling Source

Since Report Applications defined to Image FOCUS may be called by their own "Native Interface" via TSO, it may be important for your application to distinguish which interface is actually making the call. Since Image FOCUS will QUEUE parameters to the application via the stack, one way to determine the calling source is to determine if there is data in the QUEUE. The following sample can be added to make this determination.

```

/*****
/* Determine Application Environment TSO vs IFO
/*****
debug = QUEUED()

IF debug = 0 then      /***** NO DATA ON THE STACK STACK -TSO *****/
    STANDALONE = 1
ELSE STANDALONE = 0   /***** Get Report DSN from the STACK -IFO *****/

```

8.1.4.2 QUEUED Parameters

If you determine that Image FOCUS has QUEUED parameters to the stack, you may want to PULL them and use them individually in your application. To PARSE the stack and PULL these parameters into your application, add the following REXX Statement.

A sample Custom Inspector can be found in the INSTLIB member SAMREXX. Note that REPCMD, as shown in the example below, is the Line Command that you entered to call the application. Image FOCUS supports up to six such Line Commands calling the same Application. It is recommended that you use these various possible commands as needed to call specific sub-routine functions or reports within your application.

Code Sample

```

/*****
/*****      Get the Current Inspection Report from IMAGE Focus      *****/
/*****
/***** PARSE PULL REPDSN REPDDN REPMEM REPIFRL REPTITLE REPCMD REPTYPE ,REPRSLT REPSEG . *****/
/*****
/*When the program gets control the first item on
/* the stack will be the parameters passed from the
/* higher level routine.
/*
/* Parm 1 (REPDSN) is the dataset name or the string N/A.
/* Parm 2 (REPDDN) is the ddname or the string N/A.
/* Parm 3 (REPMEM) is the related member name or the string N/A.
/* Parm 4 (REPIFRL) is a 20-byte string that contains the Image
/* Focus release level information.
/* Parm 5 (REPTITLE) is a 32-byte string that contains the Report
/* Title from the custom report definition.
/* Parm 6 (REPCMD) is a 2-byte line command used or ** if called
/* from the Custom Analysis function.
/* Parm 7 (REPTYPE) is a 2-byte report id to identify the source
/* of the report:
/* FI -Foreground Image inspection
/* FR -Foreground Release inspection
/* FX -Foreground Sysplex inspection
/* FY -Foreground Subsystem inspection
/* BI -Background Image inspection
/* IX -Indexed Report
/* Parm 8 (REPRSLT) is Inspection Result
/* E -Error
/* W -Warnings
/* N -Notice
/* S -Success
/* Parm 9 (REPSEG) is cluster number
/* 0 -Is not a cluster style report
/* n -Is the relative report number -REPSEG
/*****/

```

8.1.5 Returning to Image FOCUS

It is highly recommended that you return control to Image FOCUS via a RETURN in your REXX application and NOT an EXIT.

8.2 Migration Definitions

The migration tool is used to copy Image FOCUS customized data from one Image FOCUS release to the next release. The use of the migration tool is an optional step in the installation process that is used to:

- Migrate Background and Foreground data when using the Image FOCUS IFOR Recovery mode of operation;
- Migrate individual user data tables when using the Image FOCUS IFOM/IFOS Multi-user mode of operation.

Each user must do the migration of their individual data using this menu option.

8.2.1 Migration Tool

The Migration Tool allows Image FOCUS settings to be imported and exported. This accomplishes the following:

- Saves Image FOCUS settings when a new release of Image FOCUS is installed;
- Saves Image FOCUS settings when certain fix packages for Image FOCUS are installed;
- Saves Image FOCUS settings when an existing release of Image FOCUS is re-installed;
- Copies Image FOCUS settings from one user to another.

```

Image Focus - Migrate Definitions
Option  ===>
I  Import      - Import Definitions & Settings      Userid   - DEMO2
E  Export      - Export Definitions & Settings      Time     - 11:40
                                                    Terminal - 3278
                                                    System   - S0W1
                                                    Applid   - IFOT
                                                    Image Focus 16.0
                                                    Patch Level 000

X  Exit        - Return to the Image Focus Primary Menu

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```

8.2.1.1 Export

The export function saves Image FOCUS settings by category.

Image Focus - Export			SCROLL ==> PAGE
COMMAND ==>			
Workbench Definitions:			
Sysplex Inspection	==> Y	(Y/N)	
Release Inspection	==> Y	(Y/N)	
Component Inspection	==> Y	(Y/N)	
Mail Options	==> Y	(Y/N)	
Controlled Definitions:			
Inspection	==> N	(Y/N)	*-----* Note: The Control Task should be down if Controlled Definitions are being exported. *-----*
Options	==> N	(Y/N)	
Mail Options	==> N	(Y/N)	
Common Definitions:			
Custom Inspection	==> Y	(Y/N)	
Custom Application	==> Y	(Y/N)	

Each category of settings will be saved in its own sequential dataset. The high-level qualifier for each dataset is specified in the FG (Foreground Options Panel) in the field Import/Export Dataset. The default is &SYSUID.IFOWK.EXPORT. The categories and associated dataset names are described below.

8.2.1.2 Foreground Definitions

&SYSUID.IFOWK.EXPORT.IMAGE	Sysplex Inspection
&SYSUID.IFOWK.EXPORT.SYSPLEX	Release Inspection
&SYSUID.IFOWK.EXPORT.RELEASE	Subsystem Inspection
&SYSUID.IFOWK.EXPORT.SUBSYS	Custom Inspection
&SYSUID.IFOWK.EXPORT.CIMAGE	Custom Report
&SYSUID.IFOWK.EXPORT.CREPORT	Mail Options
&SYSUID.IFOWK.EXPORT.FGMAIL	

8.2.1.3 Background Definitions

&SYSUID.IFOWK.EXPORT.BIMAGE	Background Options
&SYSUID.IFOWK.EXPORT.BOPTION	Mail Options
&SYSUID.IFOWK.EXPORT.BGMAIL	

These datasets will be allocated by the export function if they do not exist. If the datasets do exist, then they will be overwritten.

8.2.1.4 Import

The import function reads Image FOCUS settings by category from a previous export.

COMMAND ==>
Image Focus - Import
SCROLL ==> PAGE

IMAGE/SYSPLEX Inspection	==>	N	(Y/N)	
Release Inspection	==>	N	(Y/N)	
Component Inspection	==>	N	(Y/N)	
Mail Options	==>	N	(Y/N)	

|Note: The Control Task |

| should be down if |

| Controlled definitions |

| are being imported. |

Inspection	==>	N	(Y/N)	
Options	==>	N	(Y/N)	
Mail Options	==>	N	(Y/N)	

Common Definitions:

Custom Inspection	==>	N	(Y/N)	
Custom Application	==>	N	(Y/N)	

8.2.1.5 Migration from a Release

Image FOCUS settings can be exported and imported into any future Image FOCUS Release.

8.2.1.6 IMPORT/EXPORT Datasets

IMPORT/EXPORT Datasets are, by default, stored using the following dataset naming convention.

- 1st Level Index ==> &SYSUID
- 2nd Level Index ==> IFOWK
- 3rd Level Index ==> IEXPORT

If this does not fit your individual or site standard, you will need to access the Foreground Options Menu via the Workbench View and change them as needed.

8.2.1.7 Operational Considerations

Foreground Settings are not available for migration since they control the migration settings. Although Custom Inspector settings may be migrated, Image Definitions with Custom Inspectors defined to run in background must be manually deleted from background and re-added to background in order for custom inspections to run.

Background definitions are shared among all users; only one user should be migrating background categories. The background task should be down while doing an Export or Import so the Migration Tool may have exclusive access to the background datasets.

9 The Inspectors

Image FOCUS and the Inspection Server use a number of Inspectors to inspect all or selected components of a Sysplex. This section describes the scope and operation of each Inspector. For an understanding of how to control and access each Inspector, you are referred to the Production, Workbench and Recovery Views. All Image FOCUS Inspectors are current with Release z/OS V2R4.

9.1 The OPSYS Inspector

The OPSYS Inspector will inspect PARMLIB and other MVS components for availability, accessibility, syntax, and implied or actual references. It supports SMS managed volumes and Symbolic Substitution.

9.1.1 *Inspection Points*

At its lowest level, each Image is composed of hundreds of individual system elements. All elements are represented as Keywords or Statements within the members IEASYMxx and IEASYSxx. Each member is then accessed by a pointer. Each pointer is derived from a statement found within LOADxx.

At its highest level, the value of LOADxx is derived from Operator Input as the Inspection Process begins with the confirmation that IPL text exists on the IPL Volume and that the SYS1.NUCLEUS dataset can be opened.

During each “Virtual IPL”, the Image Inspector assembles a network of system dependencies. Each intersection within this network is an Inspection Point and represents a potential point of system failure.

9.1.2 *Validate Operator Input*

Using the information from the MVS Image selection screen, this inspection includes checking for valid inputs for IPL address, MVS LOADPARM, SYSCATxx, and IEASYSxx, assembling defaults for non-specified information, and confirming an IPL DASD volume:

- IPL Unit address for a valid disk device;
- Defaults for IPL parameters not supplied on panel

9.1.3 *Confirm the availability of resources*

After parsing the LOADPARM statement, this inspection confirms that IPL text does exist on the IPL volume and that the SYS1.NUCLEUS dataset resides on the IPL volume and can be opened. It locates the SYSx.IPLPARM / SYS1.PARMLIB for the correct LOADxx member and opens that dataset:

- If SYS1.NUCLEUS exists on IPL volume;
- If SYS1.NUCLEUS can be opened;
- If IPL TEXT exists on IPL volume;
- If IODF Unit address is for a valid disk device;
- If SYSx.IPLPARM / SYS1.PARMLIB for LOADxx member can be found;
- If the dataset containing LOADxx member can be opened.

9.1.4 *Process Filters for LOADxx*

This inspection reads the entire LOADxx member and checks for correct syntax of each statement. It then processes any filters against the member to extract out only those statements required for this Image.

9.1.5 *Locate exact member & datasets*

Using the information from LOADxx, this inspection locates the exact member and datasets to be used during the IPL of this Image. It checks to see if IEANUCxx exists in SYS1.NUCLEUS, if the Master Catalog can be found and opened, and the name and location of all PARMLIB datasets. All PARMLIB datasets are also opened to ensure their availability:

- If member IEANUCxx exists in SYS1.NUCLEUS;
- If IODF dataset exists on IODF volume;
- Dataset name and volume of Master Catalog;
- If Master Catalog can be opened;
- Names and volumes of all PARMLIB datasets;
- If all PARMLIB datasets can be opened.

9.1.6 *Process Filters for IEASYMxx*

This inspection locates and reads all IEASYMxx members and checks for correct syntax for each statement. It then processes any filters against the member to extract out only those statements required for this Image:

- Names of all IEASYMxx members to be processed;
- If all records in IEASYMxx can be read successfully;
- Syntax of each record in IEASYMxx member (s).

9.1.7 *Process IEASYSxx*

This inspection locates and reads all IEASYSxx members and checks for correct syntax for each statement. It then processes any filters against the member to extract out only those statements required for this Image:

- Names of all IEASYSxx members to be processed;
- If all records in IEASYSxx can be read successfully;
- Syntax of each record in IEASYSxx member(s).

9.1.8 *Final STATIC SYSTEM SYMBOL Values*

Having completed all the steps until this point, this inspection will determine the final value for xx, and if correct, will set the value for continued processing of the IPL.

For each of the items listed in the Inspection List, the OPSYS Inspector will locate and read related members, checking the syntax of each statement contained therein to ensure that:

- All members can be processed;
- All records in each member can be read successfully;
- The Syntax of each record is correct.

9.1.9 *Inspection Restrictions*

Syntax checking of SMFPRMxx members is done on the whole member. If an error is found, the statement(s) in error cannot be identified. Image FOCUS will only indicate that the member had a syntax error.

The Master Catalog for a system image being analyzed must be connected to the Master Catalog of the running system.

IODF datasets will be located using dataset name and volume only. Hardware information will not be used.

MSTJCLxx will always be loaded from SYS1.LINKLIB not LNKLIST.

Unit addresses cannot always be verified

SMS= is always taken from IEASYSxx; the suffix in the IEFSSNxx member is ignored.

9.1.9.1 LOADxx Filtering

Several LOADxx keywords allowed for the filtering of LOADxx statements based on Hardware name, LPAR name and VM Userid. Using these new parameters (HWNAM, LPARNAME & VMUSERID), a single LOADxx member can be used to control the initialization of several different Images with customization for each IMAGE based on the environment in which the IPL is taking place.

Image FOCUS allows for the analysis of any IMAGE independent of the environment in which Image FOCUS is operating.

For each group of filtering keywords (HWNAM or LPARNAME or VMUSERID), Image FOCUS allows for the selection of one of the defined values or a value of -BLANK-.

HWNAM, LPARNAME and VMUSERID may be specified with a blank value to indicate a match if there is no actual value defined.

When filtering keywords are present, the Image Analysis Report will show the LOADxx contents before and after filtering.

9.1.10 System Dataset Report

Each System Dataset identified during an Image Inspection is given a complete attribute check. To do this, Image FOCUS first interrogates the dataset for its specific attributes. Next, it determines the Type of dataset being inspected and assigns it to a Dataset Class.

9.1.10.1 System Dataset Classes

The Dataset Class assignment table used by Image FOCUS appears below.

BROADCAST	CLASS	DIRECT
SPROCLIB	CLASS	FIXED80N
STGINDEX	CLASS	KSDS
STGINDEX	CLASS	SYSVSAM
SVCLIB	CLASS	LOADLIB2
SWAP	CLASS	SYSVSAM
UPROCLIB	CLASS	FIXED80
VSAMCAT	CLASS	KSDS
VTAMLIB	CLASS	LOADLIB3

Next the attributes of the dataset being inspected are compared to the required attributes for that dataset class.

9.1.10.2 Dataset Inspection

Dataset Inspection Reporting for a specific dataset always begins with the message “IFO0757I”. If the dataset attributes are valid, only this single line will be displayed and inspection results appear as follows:

IFO0757I Message Example

```
IFO0935I SEARCHING FOR LOADNE MEMBER.
IFO0906I SYS1.IPLPARM WAS FOUND ON VOLUME OS39M1.
IFO0998I SYS1.IPLPARM FOUND ON VOLUME OS39M1.
IFO0757I 3 DASD EXTENTS.
IFO0138I ALLOCATING SYS1.IPLPARM; VOL=OS39M1.
IFO0151I ALLOCATED TO SYS00303.
```

If the dataset attribute inspection fails, the additional message line “IFO0795E” will be displayed to explain the error. Inspection results appear as follows:

```
IFO0795E Message Example
IFO0998I SYS1.LOADLIB FOUND ON VOLUME OS39R6.
IFO0757I 1 DASD EXTENTS.
IFO0795E SYS1.PARMLIB HAS INVALID ATTRIBUTES.
IFO0796E RECFM MUST BE U.
IFO0796E LRECL INVALID.
```

9.2 Dynamic Change Inspector

A Dynamic Change is one that occurs when the content of memory for LNKLIST, APFLST or LPALST varies from the content of the member that would be used to re-IPL the named Image.

9.2.1 Testing for Changes

To test for dynamic changes, place a "Y" on the selection line for the target Image and press enter. This action will immediately start an Inspection. When the Inspection is complete, the Dynamic Change Summary screen is displayed.

9.2.2 Dynamic Change Summary

```

Image Focus - Dynamic Change Summary                               Row 1 to 4 of 4
COMMAND ==>                                                         SCROLL ==> PAGE

Line Commands:  S - Compare Details    BN - Browse Running System Data
                  BO - Browse Inspection Data

SELECT ONE MEMBER BELOW:
CMD  MEMBER      STATUS
..   LNKLST      * DIFFERENT *          *LNKLST*
..   APFLST      SAME                  *APFLST*
..   LPALST      * DIFFERENT *          *DYNLPA*
..   SYMLST      SAME                  *SYMLST*
***** Bottom of data *****

```

The Dynamic Change Summary displays, in summary form, the results of the Inspection. Using Line Commands, select specific members by placing the command on the line next to the target name and pressing enter.

9.3 JES Inspector

The optional 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 the OPSYS Inspector. 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.

9.3.1 Invoking the JES Inspector

If “Yes” (Y) is specified for the JES2/3 Inspection processing option, Image FOCUS will invoke the JES2/3 Inspector if:

- The OPSYS Inspector finds a start command or subsystem definition for JES2/3 in the OPSYS parameters being processed,
- And the OPSYS Inspector can locate the Started Task JCL for JES2/3,
- And the OPSYS Inspector can determine the source of the JES2/3 parameters from that JCL and can successfully read those parameters.

Once invoked, the JES2 Inspector will first determine the level of the JES2/3 component on the system being inspected. The JES2/3 Inspector will then prepare to inspect the parameters using the rules for that release. If a New Release has been selected by using

the Image FOCUS New Release function, the rules (if supported) for the New Release are used in place of the rules determined by JES2/3 component level Inspection.

The JES2/3 Inspector will check the syntax of all JES2/3 parameters and sub-parameters (over 890 different keywords in all). This is an independent analysis of the JES2/3 syntax based on JES2/3 documentation and known working syntax. No components of JES2/3 are used.

The JES2/3 Inspector parsing phase will detect invalid syntax format, invalid keywords, and invalid keyword values. Keyword values checked to be valid are fixed, masked, numeric, numeric range, or hexadecimal specifications.

Part of the Syntax checking phase includes checking for mutually exclusive keywords, restricted keywords (only valid when another keyword is specified with a particular value), and obsolete keywords.

9.3.2 *Syntax rules*

The syntax rules used by the JES2/3 Inspector have been developed from a review of the IBM JES2/3 Initializing and Tuning Reference. These base rules and the testing of a large number of syntax variations using JES2/3 systems result in the Final Rule Set used by the JES2/3 Inspector. The JES2/3 Initialization and Tuning Reference document is known to contain a number of inaccuracies. As these are discovered, the Final Rule Set is updated.

9.3.3 *Syntax exceptions*

Some JES2/3 statement syntax that was valid years ago and continues to work is not documented while other forms of syntax that are documented do not work at all. If the JES2/3 Inspector flags a statement as an error that, in fact, is being accepted by JES2/3, please contact NewEra technical support personnel at support@newera.com. Most likely the statement contains old undocumented syntax or is not documented properly.

As the JES2/3 Inspector is an independent analysis of the parameter statements, it can help to identify parameter specifications that are old and in an undocumented form. In these cases, it is advised to change these obsolete statements to a newer documented form, this way surprises can be avoided in the future if/when IBM removes support for older obsolete specifications.

The JES2/3 Inspector does not fully support the inspection of the rarely used selection limiting keywords. The JES2/3 Inspector will ignore any JES2/3 Commands specified within the JES2/3 parameter deck.

9.3.4 *Post-Parsing Phase*

The JES2 Inspector post-parsing phase will validate certain collections of parameters and the inter-relationship between them. Currently, the JES2/3 Inspector post-parsing phases are:

9.3.4.1 *STC Definition Inspector*

This allows Image FOCUS to locate other system components that are started under the JES2/3 subsystem. Image FOCUS must know which JES2/3 PROCLIB DD is used to locate started task JCL. The STC Definition Inspector will inspect the JES2/3 JOBCLASS PROCLIB= specification and provide the PROCLIB DD to Image FOCUS.

9.3.4.2 *Initiator Inspector*

This inspects the JES2/3 INITDEF and INIT statements and the relationship between them. It will check that the number of defined initiators does not exceed the maximum and that all of the initiators are explicitly defined. It will also check initiator definitions that may be syntactically correct but may produce undesired results.

9.3.4.3 *Network Inspector*

This inspects the JES2/3 NJEDEF, NODE, CONNECT, and APPL statements and the relationships between them.

9.4 *The VTAM Inspector*

The optional VTAM Inspector inspects the parameters used when starting VTAM. The OPSYS Inspector, in conjunction with the JES2/3 Inspector, identifies the VTAM started task procedure (PROC) being used to start VTAM. From the VTAM PROC, the source of the VTAM parameters is determined.

The JES Inspector must be installed and operational for the VTAM Inspector to function as described in this document.

The VTAM Inspector first inspects the appropriate ATCSTRxx member. From the contents of the ATCSTRxx member, the appropriate ATCCONxx member is identified and inspected. Each of the additional VTAM parameter members identified in the ATCCONxx member is then processed. The inspection involves syntax checking of all parameters and additional inspection processing that identifies Syntax coding errors and Definition errors in VTAM parameters.

Problems identified would generally prevent the next start of VTAM or affect VTAM definitions. Users should correct identified problems as they may turn into VTAM initialization errors.

9.5 Invoking the VTAM Inspector

If “Yes” (Y) is specified for the VTAM Inspection processing option, Image FOCUS will invoke the VTAM Inspector if:

- The JES2/3 Inspector is run, and it is able to determine the PROCLIB definition used for Started Tasks,
- The OPSYS Inspector finds a start for VTAM in the OPSYS parameters being processed,
- And the OPSYS Inspector can locate the Started Task JCL for VTAM,
- And the OPSYS Inspector can determine the source of the VTAM parameters from that JCL and can successfully read those parameters.

Once invoked, the VTAM Inspector will first determine the level of the VTAM component on the system being inspected. The VTAM Inspector will then prepare to inspect the parameters using the rules for that release. If a New Release has been selected by using the Image FOCUS New Release function, the rules (if supported) for the New Release are used in place of the rules determined by VTAM component level.

9.5.1 Syntax Inspection

The VTAM Inspector will check the syntax of all VTAM parameters and sub-parameters (over 1200 different keywords in all). This is an independent analysis of the VTAM syntax based on VTAM documentation and known working syntax. No components of VTAM are used.

The VTAM Inspector parsing phase will detect invalid syntax format, invalid keywords, and invalid keyword values. Keyword values checked to be valid are fixed, masked, numeric, numeric range, or hexadecimal specifications.

Part of the Syntax checking phase includes checking for mutually exclusive keywords, restricted keywords (only valid when another keyword is specified with a particular value), and obsolete keywords.

NOTE: The VTAM Inspector will syntax check NCP “Level-One” parameters. In future releases, this inspection will be enhanced with the inclusion of ALL NCP parameters and their related values.

9.5.2 Syntax rules

The syntax rules used by the VTAM Inspector have been developed from a review of the IBM OS/390 SecureWay Communications Server SNA Resource Definition. These base rules and the testing of a large number of syntax variations using VTAM systems result in the Final Rule Set used by the VTAM Inspector. The Communications Server SNA Resource Definition Reference is known to contain a number of inaccuracies. As these are discovered, the Final Rule Set is updated.

9.5.3 Syntax exceptions

Some VTAM statement syntax that was valid years ago and continues to work is not documented while other forms of syntax that are documented do not work at all. If the VTAM Inspector flags a statement as an error that, in fact, is being accepted by VTAM, please contact NewEra technical support personnel at support@newera.com. Most likely the statement contains old undocumented syntax or is not documented properly.

As the VTAM Inspector is an independent analysis of the parameter statements, it can help to identify parameter specifications that are old and in an undocumented form. In these cases, it is advised to change these obsolete statements to a newer documented form. This way surprises can be avoided in the future if/when IBM removes support for older obsolete specifications.

9.5.4 Post-Parsing Phase

The VTAM Inspector post-parsing phase will validate certain parameters. Currently, the VTAM Inspector post-parsing phases are:

- MODETAB

This inspects the VTAM parameters for MODETAB specifications and then determines if the MODETAB exists in the accessible libraries for the system being inspected.

- USSTAB

This inspects the VTAM parameters for USSTAB specifications and then determines if the USSTAB exists in the accessible libraries for the system being inspected.

- COSTAB

This inspects the VTAM parameters for COSTAB specifications and then determines if the COSTAB exists in the accessible libraries for the system being inspected.

9.6 The TCP/IP Inspector

The optional TCP/IP Inspector is used to inspect the parameters that start the TCP/IP subsystem and its sub-components RESOLVER, TCPDATA, TELNET and FTP.

9.6.1 TCP/IP Profile

The TCP/IP Profile Inspector inspects the configuration dataset (generally hlq.PROFILE.TCPIP) that contains Profile Configuration Statements. When running an IMAGE Inspection or New Release Analysis, the OPSYS Inspector determines the fully qualified name of this dataset and its location. When running a TCP/IP component inspection, the user must provide the correct name and location of this dataset.

The Inspector checks and validates all TCP/IP Profile Configuration Statements, their parameters and values. These inspection processes identify syntax coding errors, and Definition errors in TCP/IP Statements.

Problems identified would generally prevent initialization of TCP/IP resources during the next start of the TCP/IP address space. Users should correct identified problems as they may turn into TCP/IP initialization errors.

9.6.2 TCPIP.DATA

The TCP/IP.DATA Inspector checks both DATA and RESOLVER Statements and their related Syntax. These statements are used by the TCP/IP subsystem and its applications to reach required IP Resources and Library Routines. Inspections are performed on the Statements contained in the TCP/IP configuration dataset TCPIP.DATA, and/or optionally in z/OS V1R2 and above, RESOLVER statements and their Global and Default 'DATA' datasets. When running an IMAGE Inspection or New Release Analysis, the OPSYS Inspector determines the required inspection (DATA vs. RESOLVER) and the name and location of needed data sources (including HFS Files). When running a TCP/IP subsystem inspection, the user must provide the correct name and location of the dataset or file to be inspected.

The Inspector checks and validates all TCP/IP DATA Configuration Statements (contained in the Image FOCUS Inspection Dictionary), their parameters and values. These inspection processes identify syntax coding errors, and Definition errors in TCP/IP Statements.

Problems identified in DATA or RESOLVER syntax would generally prevent a TCP/IP address space or a TCP/IP Application from accessing needed resources and resulting in service interruption. Users should correct identified problems as they may turn into TCP/IP initialization errors.

9.7 The CICS Inspector

The optional CICS Inspector is used to inspect the JCL and System Initialization Table (SIT) parameters that start a named CICS Region.

9.8 The Component Inspectors

The Single component Inspector is designed to support the inspection of any single z/OS Component at any time. This enhancement saves considerable time, avoiding the need for a full Image Inspection when the focus of activity or concern is, for example, a single ParmLib Member.

To use the Single Component Inspector as a Component Inspector, insert a new entry for Component Inspector Selection. When the Component Type is displayed, enter the xComponent Type, PARMLIB, and press enter.

```

Image Focus Single Component Inspection

COMMAND ==>
Component Type ==>      (XPARMLIB, PARMLIB, JES2, JES3, VTAM,
                        TCPIP, TCPDATA, RESOLVER, TELNET,
                        FTP, SMTP, OMROUTE, CICS,
                        LOAD, MBRs, CSDS, CUST1, CUST2)

-----
Inspection Notes:
* Inspects the selected item without inspecting the whole Operating System.
* Uses the running system libraries (LINKLIB, LPALIB, etc.).
* Uses the running system System Symbol definitions.
* Uses the running system Parmlib concatenation for includes from the system
  Parmlib.
* Inspection of Parmlib member IEAOPTxx will always be in GOAL mode.
-----

```

- Inspects the selected item without inspecting the whole Operating System.
- Uses the running system libraries (LINKLIB, LPALIB, etc.).
- Uses the running system System Symbol definitions.
- Uses the running system Parmlib concatenation for includes from the system Parmlib.

- Inspection of Parmlib member IEAOPTxx will always be in GOAL mode.

The actions described above will display the ParmLib Member Inspection Operations Menu. By default this menu will be populated with the name(s) and volume(s) locations of the running systems ParmLib Datasets in the order of concatenation. Once you have named the inspector you can use this menu to do several things.

```

                                Image Focus Parmlib Member Inspection
COMMAND ==>
Inspection Name ==>                (User assigned name)
Member Name ==>                    (Blank for member list)
PROCESSING OPTIONS
Release Level ==>                Report Level ==> 1      Member Display ==> N
Report Levels : 1-ALL; 2-Error & Warning; 3-Error Only; 4-Final Result
Release Levels: 106- V1R6  109- V1R9  112- V1R12 202- V2R2
                (use blank for 107- V1R7  110- V1R10 113- V1R13 203- V2R3
                  running sys release) 108- V1R8  111- V1R11 201- V2R1  204- V2R4
PARMLIB DATASETS
-Type- --DDname-  ----- Fully Qualified Data Set Name ----- Volume

SOURCE PARMLIB => VENDOR.PARMLIB =>
-01- => SVTSC.PARMLIB =>
-02- => LVL0.PARMLIB =>
-03- => SYS1.PARMLIB =>
-04- => =>
-05- => =>
-06- => =>
-07- => =>
-08- => =>
-09- => =>
-10- => =>
-11- => =>
-12- => =>
-13- => =>
-14- => =>
-15- => =>

```

- Name the specific ParmLib Member within the Concatenation you wish to inspect.

To inspect a specific member, enter its name in the field provided and press enter. This will kick off a search for the named member within the ParmLib Concatenation defined by the Source PARMLIB Statements displayed in the panel. If the member is not found, an error stating this will appear in the resulting Inspection Report. If the member is found and is a valid ParmLib member, it will be inspected and the resulting Inspection Report displayed. If the member is not a valid ParmLib member, the message 'Invalid Member' will be displayed in the upper right of the panel.

- Change the order of the Concatenation by overtyping the SOURCE Statement(s).

To change the order of Concatenation, overwrite the Source PARMLIB Statements in the order you require. To add a dataset(s) to the Concatenation, enter it/them onto available lines (up

to 16). Dataset Volume relationships must be correct in order to avoid errors that will appear within the inspection report if they are invalid.

- Display the Concatenation and/or then select a specific member for inspection.

To display the ParmLib Concatenation, leave the member name field blank and press enter. The resulting display will be the Image FOCUS Parmlib Member List.

Image Focus Parmlib Member List							Row 1 to 36 of 350
COMMAND ==>							SCROLL ==> PAGE
Line Commands:							
S - Select E - Edit B - Browse X - Execute EX - Edit/Execute							
LINE	Member	Concat	IFO	DUP	Volume	Dataset Name	
CMD	Name	Number					
..	\$\$\$COIBM	3			VIMVSB	SYS1.PARMLIB	
..	ADYSET00	3			VIMVSB	SYS1.PARMLIB	
..	ADYSET01	3			VIMVSB	SYS1.PARMLIB	
..	ADYSET02	3			VIMVSB	SYS1.PARMLIB	
..	ALLAUTO1	1			VTMVSG	SVTSC.PARMLIB	
..	ALLAUTO2	1			VTMVSG	SVTSC.PARMLIB	
..	ALLAUTO3	1			VTMVSG	SVTSC.PARMLIB	
..	ALLJ2	0			VPMVSD	VENDOR.PARMLIB	
..	ALLJ2	1		DUP	VTMVSG	SVTSC.PARMLIB	
..	ALLJ2	2		DUP	VTLVLO	LVLO.PARMLIB	
..	ALLJ3	0			VPMVSD	VENDOR.PARMLIB	
..	ALLJ3	1		DUP	VTMVSG	SVTSC.PARMLIB	
..	ALLJ3	2		DUP	VTLVLO	LVLO.PARMLIB	
..	ALLMPF	2			VTLVLO	LVLO.PARMLIB	
..	ALLMPF1	2			VTLVLO	LVLO.PARMLIB	
..	ALLMPF2	2			VTLVLO	LVLO.PARMLIB	
..	ANTXIN00	3			VIMVSB	SYS1.PARMLIB	
..	APPCPMOM	2			VTLVLO	LVLO.PARMLIB	
..	APPCPM00	1			VTMVSG	SVTSC.PARMLIB	
..	ASAIPCSP	3			VIMVSB	SYS1.PARMLIB	
..	ASBIPCSP	3			VIMVSB	SYS1.PARMLIB	
..	ASCHPMOM	2			VTLVLO	LVLO.PARMLIB	
..	ASCHPM00	1			VTMVSG	SVTSC.PARMLIB	
..	ATBIPCSP	3			VIMVSB	SYS1.PARMLIB	
..	AXR00	2			VTLVLO	LVLO.PARMLIB	
..	BDTIPCSP	3			VIMVSB	SYS1.PARMLIB	
..	BLSCECT	3			VIMVSB	SYS1.PARMLIB	
..	BLSCECTX	3			VIMVSB	SYS1.PARMLIB	
..	BPXIPCSP	3			VIMVSB	SYS1.PARMLIB	
..	BPXPRMAA	2	IFO		VTLVLO	LVLO.PARMLIB	
..	BPXPRMAZ	2	IFO		VTLVLO	LVLO.PARMLIB	
..	BPXPRMFS	2	IFO		VTLVLO	LVLO.PARMLIB	
..	BPXPRMOM	1	IFO		VTMVSG	SVTSC.PARMLIB	
..	BPXPRMOM	2	IFO	DUP	VTLVLO	LVLO.PARMLIB	

This list offers a number of Line Commands and additional information about the ParmLib Concatenation.

The Line Commands are used in conjunction with each panel entry. To select an entry and use a command, place an entry from the list below on the CMD Line immediately preceding the target member and press enter. This action will initiate one of the following:

When you enter 'S' - Select and press enter, you will be returned to the prior panel. The name of the selected member will appear in the named member field.

When you enter 'E' - Edit and press enter, you may drop into ISPF Edit. If you have the necessary authority to access the dataset housing the member, the content of the member will be displayed in Edit. If not, it will be displayed in ISPF Browse.

When you enter 'B' -Browse and press enter, you will drop into ISPF Browse and the member content will be displayed.

When you enter 'X' -Execute and press enter, the content of the selected member will be passed to the Inspector and if it is a valid ParmLib Member, the resulting Inspection Report for just that member will be displayed.

When you enter 'EX' -Edit/Execute and press enter, you may drop into ISPF Edit. If you have the necessary authority to access the dataset housing the member, the content of the member will be displayed in Edit. If not, it will be displayed in ISPF Browse. When you PFK3 out, the content of the selected member will be passed to the Inspector and if it is a valid ParmLib Member, the resulting Inspection Report for just that member will be displayed. In addition to the CMD Line and the Member Name, this panel displays the following additional information:

- “Concat Number” is the position of the dataset housing the member in the ParmLib concatenation from 0 to 15 with 0 being the highest prevailing level in the concatenation;
- “IFO” in this field, 'IFO' indicates that the member is a valid ParmLib member, is known to Image FOCUS and can be inspected;
- “DUP” in this field 'DUP' indicates that the member is a duplicate of one that appears before it in the ParmLib concatenation;
- “Volume” is the VolSer housing the named ParmLib Dataset;
- “Dataset” is the dataset housing the named member.

9.8.1.1 The Index Report

To access the Single ParmLib Member Inspector from the Inspection Report Index, select an existing Inspection Report or run a new Image Inspection. When the High-Level Report Index is displayed, select '-OPSYS' to display the ParmLib Inspection Report Index.

```

Image Focus - IMAGE      Report Index for IMAG0001      Row 18 from 102
COMMAND ==>
SORT      ==> R          (R - Result; M - Member; S - Sequence)
Line Commands: S - Select E - Edit Mode
Report      Line Commands      Report      Line Commands
INDEX      SF M P ME MX      CREDIT      HS HD
Report Filtering for SF, M, and P line commands:
Report Level ==> 1      (1, 2, 3, or 4) Member Display ==> Y      (Y/N)

LINE Member      Status      Description      Record
CMD  Name        Code
.. LPALST00      WARNING      -- Data Records --      25
.. MSTJCLW8      WARNING      -- Data Records --      35
.. CONSOL00      NOTICE      -- Data Records --      79
.. IEASYSW8      NOTICE      -- Data Records --      50
.. IEASYS00      NOTICE      -- Data Records --      48
.. PROGNE        NOTICE      -- Data Records --      132
.. PROG00        NOTICE      -- Data Records --      161
.. BPXPRMW8      OK           -- Data Records --      221
.. CLOCKNE       OK           -- Data Records --      14
.. COMMND CG      OK           -- Data Records --      9
.. COMMNDW8      OK           -- Data Records --      65
.. COUPLE00      OK           -- Data Records --      51
.. CSVLLA00      OK           -- Data Records --      2
.. DIAG00        OK           -- Data Records --      36
.. GRSCNF00      OK           -- Data Records --      52

```

When you enter 'ME' -Edit and press enter, you may drop into ISPF Edit. If you have the necessary authority to access the dataset housing the member, the content of the member will be displayed in Edit. If not, it will be displayed in ISPF Browse.

When you enter 'MX' - Execute and press enter, the content of the selected member will be passed to the Inspector and if it is a valid ParmLib Member, the resulting inspection Report for just that member will be displayed.

10 Inspection Reports

The Inspection Report represents a "super set" of information discovered, evaluated and created during a Sysplex/Image Inspection. It is not uncommon for these reports to be tens of thousands of records in length. It is recommended that you periodically print the complete report and use it to satisfy your requirements for system documentation. But, more generally, in everyday use you will be using the Inspection Report Index as your "Jumping-Off-Point" for drilling down into specific points of interest.

The Inspection Report Index is hierarchical and where it begins is determined within the context of your selection. For example, if you select a Sysplex Entry, the Index will be displayed at its highest level: Audit Log, Sysplex Inspection, IMAGE Profile and IMAGES 1 through "x".

Image Focus - Report Entry Selection							Row 1 to 6 of 6
COMMAND ==>							SCROLL ==> PAGE
Line Commands: S - Select Report							
LINE	REPORT	INSP.	ENTRY	RECORD	----- Inspection -----		
CMD	TYPE	ID	NAME	COUNT	DATE	TIME	RESULT
..	LOG	OPSYS	AUDITLOG	18	08/08/2019	10:07:	SUCCESS
..	SYSplex	OPSYS	PROD0001	118	08/08/2019	10:07:	ERROR
..	IMAGE	OPSYS	IMAGCLG1	7791	08/08/2019	10:05:	ERROR
..	IMAGE	OPSYS	IMAGCLG2	7791	08/08/2019	10:06:	ERROR
..	CHGSUM	OPSYS	IMAGCLG2	18	08/08/2019	10:07:	SUCCESS
..	CHGDET	OPSYS	IMAGCLG2	90	08/08/2019	10:07:	SUCCESS
***** Bottom of data *****							

10.1 Audit Log

```

BROWSE -- CLUSTER_BROWSE ----- Line 00000000 Col 001 080
Command ==>                               Scroll ==> CSR
***** Top of Data *****
IFO1102I ALLOCATING REPORT DSN 'IFO.IFOTBG.REPORT.D2019129.T1005467'.
IFO1104I SELECTING SYSplex NUMBER 2 : PROD0001

IFO1106I SELECTING IMAGE NUMBER 1 : IMAGCLG1 IN SYSplex: PROD0001
IFO0998I IFO.IFOT.PACKAGE.IMAGCLG1 FOUND ON VOLUME VPWRKG.
IFO0349I USING OLD IMAGE PDS IFO.IFOT.PACKAGE.IMAGCLG1 ON VOLUME VPWRKG.
IFO0351I LAST PACKAGE STORED WAS MEMBER F080508C.
IFO0352I COMPARE SUCCESSFUL; PACKAGE NOT STORED.
IFO0354I IFO.IFOT.PACKAGE.IMAGCLG1/VPWRKG/0D80 INDEXED.
IFO1107I INSPECTION COMPLETED FOR IMAGCLG1 SYSTEM SOW1      ERROR.

IFO1106I SELECTING IMAGE NUMBER 2 : IMAGCLG2 IN SYSplex: PROD0001
IFO0998I IFO.IFOT.PACKAGE.IMAGCLG2 FOUND ON VOLUME VPWRKG.
IFO0349I USING OLD IMAGE PDS IFO.IFOT.PACKAGE.IMAGCLG2 ON VOLUME VPWRKG.
IFO0351I LAST PACKAGE STORED WAS MEMBER F080304C.
IFO0353I STORING NEW PACKAGE AS MEMBER F080508C.
IFO0354I IFO.IFOT.PACKAGE.IMAGCLG2/VPWRKG/0D80 INDEXED.
IFO1107I INSPECTION COMPLETED FOR IMAGCLG2 SYSTEM SOW1      ERROR.
***** Bottom of Data *****

```

10.2 Full z/OS Inspection

The inspection targeted LPAR begins with the automatic discovery of the IPL DASD Unit Address and LOADPARM. This information is passed to the Image FOCUS Inspection Server, which in turn validates it and begins a z/OS LPAR Inspection. The Results of this “Virtual IPL” of the LPAR are found in the z/OS Inspection Report.

```
|
| 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 IEAIPLO01008/21/19 HBB7770.
|
| 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=2019/08/28 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      VPMVSB113CMASERV.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---+---
|
| IFO0924I  PROCESSING FILTERS IN LOADW1 MEMBER.
| IFO0926I  FILTERING FOR HWNAME VM-TOKEN .
| IFO0926I  FILTERING FOR VMUSERID ETPGMQC .
| IFO0934I  LOADW1 MEMBER CONTENTS AFTER FILTERING ARE:
| -+---+---1---+---2---+---3---TOP OF MEMBER---5---+---6---+---7---+---
| IEASYM      (W1,SV,VN)
| IODF        00 SYS1      MVS      00 Y
| NUCLEUS     1
| NUCLST      SV N
| SYSCAT      VPMVSB113CMASERV.CATALOG          CATALOG
```

10.3 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.

```
|
| 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 TCP/IP.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 UNCLOSSED COMMENT DETECTED.
| IFO0786W UNCLOSSED 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 PRRTST.
| IFO0615W UNBALANCED COMMENTS DETECTED.
| IFO0746I JES2 PROCESS COMPLETED SUCCESSFULLY.
| IFO0746I HCKR PROCESS COMPLETED SUCCESSFULLY.
| IFO0746I RESOLVER PROCESS COMPLETED SUCCESSFULLY.
| IFO0746I TCP/IP 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.

10.4 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

```

|
| 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=VIMVSG  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

```

10.5 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.

```
|
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
```

10.6 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 its final or default value. The source IEASYSxx member that prevailed in the consolidation is noted as is its level in the ParmLib Concatenation.

```

|
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.S0W1.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*

```

10.7 IEASYSxx Summary

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 and date, 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    2004/10/17 12:26:56  DPACK
IEASVC65 IEASYSSV                1    2005/08/14 16:07:48  FLEMING
PROG00   IEASYSVN                2    2019/06/18 08:01:18  RAMON
PROGVN   IEASYSVN                0    2019/02/22 10:59:58  PHARL2
PROG52   IEASYSVN                2    2019/08/07 11:27:31  TODD
PROG65   IEASYSVN                1    2019/08/14 16:19:22  FLEMING
PROGJ3   IEASYSVN                2    2019/08/04 11:46:40  RAMON
PROGAA   IEASYSVN                2    2018/11/06 10:16:21  RAMON
PROGDB   IEASYSVN                1    2018/10/25 09:26:17  DPACK
PROGMS   IEASYSVN                1    2019/07/27 15:56:07  IBMUSER
PROGI9   IEASYSVN                1    2018/10/17 12:29:07  DPACK
PROGC7   IEASYSVN                1    2018/10/17 12:19:30  DPACK
PROGFM   IEASYSVN                1    2018/10/29 10:49:15  IBMUSER
PROGID   IEASYSVN                1    2018/10/29 13:50:07  IBMUSER
PROGWD   IEASYSVN                1    2018/10/31 12:06:00  SVTSCU
PROGSY   IEASYSVN                2    2019/04/04 19:45:45  RALEY
PROGLA   IEASYSVN                2    2018/10/09 22:36:14  RALEY
PROGLB   IEASYSVN                2    2017/02/21 15:30:21  PKRUTZA
PROGMC   IEASYSVN                2    2018/12/12 14:57:22  PKRUTZA
PROGMD   IEASYSVN                2    2018/12/13 13:44:53  PKRUTZA
PROGLE   IEASYSVN                2    2018/12/12 14:56:37  PKRUTZA
PROGLF   IEASYSVN                1    2018/10/29 10:48:16  IBMUSER
PROGLI   IEASYSVN                1    2018/10/29 15:54:18  IBMUSER
PROGLG   IEASYSVN                2    2018/12/12 14:57:11  PKRUTZA
PROGLJ   IEASYSVN                2    2019/03/26 18:16:49  PKRUTZA
PROGLM   IEASYSVN                2    2018/12/12 09:33:38  RAMON
PROGLN   IEASYSVN                2    2018/11/06 10:36:45  RAMON
PROGLQ   IEASYSVN                1    2019/08/14 16:15:22  FLEMING
PROGD9   IEASYSVN                1    2018/10/17 12:31:37  DPACK
PROGB7   IEASYSVN                1    2018/10/17 12:19:09  DPACK
PROGGY   IEASYSVN                1    2018/10/23 16:55:25  SVTSCU
PROGIQ   IEASYSVN                1    2018/10/24 13:46:48  SVTSCU
PROGEL   IEASYSVN                1    2018/10/24 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                2    2018/12/05 11:24:30  TODD

```


10.8 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 (Authorize 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.

```

|
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

```

10.9 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.

```

| IFO0661I BASE PROGRAM PROPERTIES TABLE REPORT.
| IFO0662I IEFSDPPT ENTRIES HAVE BEEN TRANSLATED INTO SCHEDXX FORMAT.
| IFO0940I IEFSDPPT FOUND IN LNKLIST(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

```

10.10 JES2/3 Configuration Inspection

```

BROWSE      INDEXED_REPORT----MEMBER=+JES2                Line 00000000 Col 001 080
Command ==>                                           Scroll ==> PAGE
***** Top of Data *****
IFO0739I PROCESSING JES2 FOR PROCEDURE JES2.
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
IFO0940I  HASJES20 FOUND IN LNKLIST(10) VOL=VTMVSC;DSN=SYS1.SHASLNKE.
IFO0718I  SEARCHING FOR SOURCE DATASET(S).
IFO0998I  LVL0.PARMLIB FOUND ON VOLUME VTLVL0.
IFO0757I   1 DASD EXTENTS.
IFO0938I  ALLOCATING SOURCE DATASETS.
IFO0150I  ALLOCATING LVL0.PARMLIB; VOL=VTLVL0; MBR=JES2420A.
IFO0151I   ALLOCATED TO SYS02954.
JES1000I  JES2 INSPECTOR STARTED. V2.4 GA, BUILD 6.
JES1001I  INSTALLED JES2 COMPONENT IDENTIFIED AS LEVEL V2R4.
JES1002I  JES2 INSPECTOR PROCESSING FOR JES2 LEVEL V2R4.
JES1004I  JES2 STATEMENT PARSING STARTED.
JES0001I  APS PARSER STARTED, VER 2.4J, BUILD 1.
JES0070I  SYNTAX DEFINITION J2#V1R9 LOADED, VER 2.1L FOR APS VER 2.4C.
JES0320I  MEMORY LOW:  SIZE=0007624K, USED=0004664K
JES0321I  MEMORY HIGH: SIZE=0069012K, USED=0020544K
JES0315I  STORAGE EXPANSION, CURRENT ADDR 19350000, LENGTH 00080000, INCREMENT 00
JES0320I  MEMORY LOW:  SIZE=0007624K, USED=0004664K
JES0321I  MEMORY HIGH: SIZE=0069012K, USED=0021056K
JES0168W  OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 84, COLUMN 10. REPLACE WITH STAR
JES0153W  LINE 00082: I(6)          NAME=6,
JES0153W  LINE 00083:              CLASS=BA,
JES0152W  WARNING AT: ----+----*----+----2----+----3----+----4----+----5----+----

```

10.10.1 JES2/3 STC Definition Inspection

```

***** Top of Data *****
|
JES1060I  INSPECTING STC DEFINITION TO DETERMINE PROCLIB.
JES1061I  PROCLIB DD FOR STC DETERMINED TO BE PROC01.
|
***** Bottom of data *****

```

10.10.2 JES2/3 INITIATOR Definition Inspection

```

***** Top of Data *****
|
JES1011I  INSPECTING INITIATOR DEFINITIONS.
JES1016I  INITIATOR INSPECTION COMPLETE. 0 ERROR(S), 0 WARNING(S).
|
***** Bottom of data *****

```

10.10.3 JES2/3 NETWORK Definition Inspection

```

***** Top of Data *****
|
JES1020I INSPECTING NETWORK DEFINITIONS.
JES1022I NETWORK INSPECTION COMPLETE. 0 ERROR(S), 0 WARNING(S).
JES1099I JES2 INSPECTOR ENDED, RC(0).
|
***** Bottom of data *****

```

10.11 VTAM Configuration Inspection

```

VTM1000I VTAM INSPECTOR STARTED. V2.1 GA, BUILD 10.
VTM1001I INSTALLED VTAM COMPONENT IDENTIFIED AS LEVEL V1R12.
VTM1002I VTAM INSPECTOR PROCESSING FOR VTAM LEVEL V2R4.
VTM1004I ATCSTRW1 MEMBER PARSING STARTED.
VTM0001I APS PARSER STARTED, VER 2.2J, BUILD 1.
VTM0070I SYNTAX DEFINITION VS#V2R4 LOADED, VER 2.1E FOR APS VER 2.2A.
VTM0320I MEMORY LOW: SIZE=0007624K, USED=0004704K
VTM0321I MEMORY HIGH: SIZE=0069028K, USED=0018488K
VTM0315I STORAGE EXPANSION, CURRENT ADDR 1914E000, LENGTH 00080000, INCREMENT 00
VTM0320I MEMORY LOW: SIZE=0007624K, USED=0004704K
VTM0321I MEMORY HIGH: SIZE=0069028K, USED=0019000K
***** Bottom of data *****

```

10.11.1 VTAM MODETAB Definition Inspection

```

***** Top of Data *****
|
VTM1020I INSPECTING MODETAB DEFINITIONS.
IFO0935I SEARCHING FOR IMS61TAB MEMBER.
IFO0940I IMS61TAB FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB
IFO0935I SEARCHING FOR IMSMODTB MEMBER.
IFO0940I IMSMODTB FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB
IFO0935I SEARCHING FOR ISTINCLM MEMBER.
IFO0940I ISTINCLM FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB
IFO0935I SEARCHING FOR LOGMODES MEMBER.
IFO0940I LOGMODES FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB
*****Bottom of Data *****

```

10.11.2 VTAM USSTAB Definition Inspection

```
***** Top of Data *****
|
VTM1020I INSPECTING USSTAB DEFINITIONS.
IFO0935I SEARCHING FOR USSS MEMBER.
IFO0940I USSS FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB.
IFO0935I SEARCHING FOR USSX MEMBER.
IFO0940I USSX FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB.
IFO0935I SEARCHING FOR USSN MEMBER.
IFO0940I USSN FOUND IN VTAMLIB(0) VOL=OS39RA;DSN=SYS1.LOCAL.VTAMLIB.
|
***** Bottom of data *****
```

10.11.3 VTAM COSTAB Definition Inspection

```
***** Top of Data *****
|
VTM1020I INSPECTING COSTAB DEFINITIONS.
VTM1099I VTAM INSPECTOR ENDED, RC(0).
IFO0746I VTAM PROCESS COMPLETED SUCCESSFULLY.
IFO0783I VTAM PROCESSING ENDED.
|
***** Bottom of data *****
```

10.12 TCPIP Configuration Inspection

```

IFO0739I PROCESSING TCPIP FOR PROCEDURE TCPIP.
IFO0741I INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0998I VENDOR.VTAMLIB FOUND ON VOLUME VPMVSD.
IFO0757I 1 DASD EXTENTS.
IFO0657W PROTECTION INADEQUATE: CURRENT ACCESS=UPDATE; REQUIRED ACCESS=READ.
IFO0998I SVTSC.VTAMLIB FOUND ON VOLUME VTMVSG.
IFO0757I 1 DASD EXTENTS.
IFO0687W PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A PROFILE.
IFO0998I LVL0.VTAMLIB FOUND ON VOLUME VTLVL0.
IFO0757I 1 DASD EXTENTS.
IFO0687W PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A PROFILE.
|
IFO0938I ALLOCATING STEPLIB DATASETS.
IFO0138I ALLOCATING VENDOR.VTAMLIB; VOL=VPMVSD.
IFO0151I ALLOCATED TO SYS00195.
IFO0138I ALLOCATING SVTSC.VTAMLIB; VOL=VTMVSG.
IFO0151I ALLOCATED TO SYS00196.
IFO0138I ALLOCATING LVL0.VTAMLIB; VOL=VTLVL0.
IFO0151I ALLOCATED TO SYS00197.
IFO0139I CONCATENATING DATASETS; DDNAME=SYS00195.
IFO0940I EZBTCPIP FOUND IN LNKST(42) VOL=VTMVSC;DSN=TCPIP.SEZALOAD.
|
IFO0718I SEARCHING FOR SOURCE DATASET(S).
IFO0998I VENDOR.TCPPARMS FOUND ON VOLUME VPMVSD.
IFO0757I 1 DASD EXTENTS.
|
IFO0938I ALLOCATING SOURCE DATASETS.
IFO0150I ALLOCATING VENDOR.TCPPARMS; VOL=VPMVSD; MBR=SOW1.
IFO0151I ALLOCATED TO SYS00198.
IFO0923I TCPIP MEMBER CONTENTS ARE AS FOLLOWS:
....
TCP9711I LINES ----ACTIVE/RESOLVED CONFIGURATION LINES----
|
TCP9711I 00014 ARPAGE 5
TCP9711I 00016 DATASETPREFIX TCPIP
TCP9711I 00024 AUTOLOG 5
TCP9711I 00025 FTPSERVE JOBNAME FTPSERVE
TCP9711I 00036 ENDAUTOLOG
TCP9711I 00054 PORT
TCP9711I 00055 7 UDP MISCSERV
TCP9711I 00056 7 TCP MISCSERV
....
|
TCP3006I INSPECTION EXCEPTION REPORT:
|
TCP3007I 14 STATEMENTS INSPECTED.
TCP3008I 0 STATEMENTS HAVE EXCEPTIONS.
|
TCP3010I 0 ERRORS.
TCP3011I 0 WARNINGS.
TCP3012I 0 NOTICES.
TCP3013I 0 INFORMATION.
TCP3014I 0 UNINSPECTED.
|
TCP4099I PROFILE.TCPIP STATEMENT PARSING ENDED.
|
TCP6099I PROFILE.TCPIP INSPECTOR ENDED.

```

10.12.1 Resolver Inspection

```

IFO0739I PROCESSING RESOLVER FOR PROCEDURE RESOLVER.
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0940I  EZBREINI FOUND IN LNKLST(42) VOL=VTMVSC;DSN=TCPIP.SEZALOAD.
|
IFO0718I SEARCHING FOR SOURCE DATASET(S).
IFO0998I  VENDOR.PARMLIB FOUND ON VOLUME VPMVSD.
IFO0757I   1 DASD EXTENTS.
|
IFO0938I ALLOCATING SOURCE DATASETS.
IFO0150I  ALLOCATING VENDOR.PARMLIB; VOL=VPMVSD; MBR=SETUPRES.
IFO0151I    ALLOCATED TO SYS00194.
IFO0923I  RESOLVER MEMBER CONTENTS ARE AS FOLLOWS:
|-----1-----2-----3---TOP OF MEMBER---5-----6-----7-----8
|DEFAULTTCPIPDATA('TCPIP.TCPIP.DATA')
|NOCOMMONSEARCH
|-----1-----2-----3-BOTTOM OF MEMBER--5-----6-----7-----8
RES1000I RESOLVER INSPECTOR STARTED: 16.0 - 08.23.19 - z/OS 2.4 Support - GA
RES1001I  INSPECTION DATE FRIDAY, 25 AUG 2019.
RES1002I  INSPECTOR PROCESSING RESOLVER SETUP FOR z/OS V2R4.
RES1003I  INSPECTION RULES SET FOR z/OS V2R4 - GA.
|
RES3006I INSPECTION EXCEPTION REPORT:
|
RES3007I   2 STATEMENTS INSPECTED.
RES3008I   0 STATEMENT HAVE EXCEPTIONS.
|
RES3010I   0 ERRORS.
RES3011I   0 WARNINGS.
RES3012I   0 NOTICES.
RES3013I   0 INFORMATION.
RES3014I   0 UNINSPECTED.
|
RES4099I RESOLVER STATEMENT PARSING ENDED.
|
RES0012I 0 ERRORS.
RES0012I 0 WARNINGS.
RES0012I 0 NOTICES.
RES0012I 0 INFORMATION.
|
RES1005I DEFAULTTCPIPDATA POST-PARSING ENDED.
|
IFO0746I RESOLVER PROCESS COMPLETED SUCCESSFULLY.
IFO0783I RESOLVER PROCESSING ENDED.

```

10.12.2 TELNET Inspection

```

IFO0739I PROCESSING TELNET FOR PROCEDURE TN3270.
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0998I  VENDOR.VTAMLIB FOUND ON VOLUME VPMVSD.
IFO0757I    1 DASD EXTENTS.
IFO0657W  PROTECTION INADEQUATE: CURRENT ACCESS=UPDATE; REQUIRED ACCESS=READ.
IFO0998I  SVTSC.VTAMLIB FOUND ON VOLUME VTMVSG.
IFO0757I    1 DASD EXTENTS.
IFO0687W  PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A PROFILE.
IFO0998I  LVL0.VTAMLIB FOUND ON VOLUME VTLVL0.
IFO0757I    1 DASD EXTENTS.
IFO0687W  PROTECTION INADEQUATE: DATASET NOT PROTECTED BY A PROFILE.
|
IFO0938I  ALLOCATING STEPLIB DATASETS.
IFO0138I  ALLOCATING VENDOR.VTAMLIB; VOL=VPMVSD.
IFO0151I    ALLOCATED TO SYS00200.
IFO0138I  ALLOCATING SVTSC.VTAMLIB; VOL=VTMVSG.
IFO0151I    ALLOCATED TO SYS00201.
IFO0138I  ALLOCATING LVL0.VTAMLIB; VOL=VTLVL0.
IFO0151I    ALLOCATED TO SYS00202.
IFO0139I  CONCATENATING DATASETS; DDNAME=SYS00200.
IFO0940I  EZBTNINI FOUND IN LNKST(42) VOL=VTMVSC;DSN=TCPIP.SEZALOAD.
|
IFO0718I  SEARCHING FOR SOURCE DATASET(S).
IFO0998I  VENDOR.TCPPARMS FOUND ON VOLUME VPMVSD.
IFO0757I    1 DASD EXTENTS.
IFO0657W  PROTECTION INADEQUATE: CURRENT ACCESS=UPDATE; REQUIRED ACCESS=READ.
|
IFO0938I  ALLOCATING SOURCE DATASETS.
IFO0150I  ALLOCATING VENDOR.TCPPARMS; VOL=VPMVSD; MBR=TN3270.
IFO0151I    ALLOCATED TO SYS00203.
IFO0923I  TELNET MEMBER CONTENTS ARE AS FOLLOWS:
TNT9811I  LINES ----ACTIVE/RESOLVED CONFIGURATION LINES----
|
TNT9811I  00064 BEGINVTAM
TNT9811I  00066 DEFAULTTUS
TNT9811I  00067 TCP00001..TCP00030
TNT9811I  00068 ENDDEFAULTTUS
TNT9811I  00070 LINEMODEAPPL TSO
TNT9811I  00071 ALLOWAPPL TSO* DISCONNECTABLE
TNT9811I  00082 ALLOWAPPL *
TNT9811I  00087 USSTCP USSN
TNT9811I  00095 ENDVTAM
|
....
TNT3006I  INSPECTION EXCEPTION REPORT:
|
TNT3007I  16 STATEMENTS INSPECTED.
TNT3008I    0 STATEMENTS HAVE EXCEPTIONS.
|
TNT3010I    0 ERRORS.
TNT3011I    0 WARNINGS.
TNT3012I    0 NOTICES.
TNT3013I    0 INFORMATION.
TNT3014I    0 UNINSPECTED.
|
TNT4099I  TELNET.PARMS STATEMENT PARSING ENDED.
|
TNT6099I  TELNET.PARMS INSPECTOR ENDED.
|
IFO0746I  TELNET PROCESS COMPLETED WITH WARNINGS.
IFO0783I  TELNET PROCESSING ENDED.

```


10.12.3 TCPDATA Inspection

```
IFO0739I PROCESSING TCPDATA FOR PROCEDURE .
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0718I SEARCHING FOR /etc/resolv.conf DATASET(S).
IFO0949I DATASET /etc/resolv.conf NOT FOUND IN CATALOG SEARCH.
IFO0787I SYSTCPD FOUND IN TCPIP.
IFO0718I SEARCHING FOR TCPIP.TCPIP.DATA DATASET(S).
IFO0998I TCPIP.TCPIP.DATA FOUND ON VOLUME VPMVSB.
|
IFO0718I SEARCHING FOR SOURCE DATASET(S).
IFO0998I TCPIP.TCPIP.DATA FOUND ON VOLUME VPMVSB.
IFO0757I  1 DASD EXTENTS.
|
IFO0938I ALLOCATING SOURCE DATASETS.
IFO0138I ALLOCATING TCPIP.TCPIP.DATA; VOL=VPMVSB.
IFO0151I  ALLOCATED TO SYS00199.
IFO0923I TCPDATA MEMBER CONTENTS ARE AS FOLLOWS:
...
DAT1000I TCPIP.DATA INSPECTOR STARTED: 16.0 - 08.25.19 - z/OS 2.4 Support - GA
DAT1001I  INSPECTION DATE FRIDAY, 25 AUG 2019.
DAT1002I  INSPECTOR PROCESSING TCPIP.DATA FOR z/OS V2R4.
DAT1003I  INSPECTION RULES SET FOR z/OS V2R4 - GA.
|
DAT3006I INSPECTION EXCEPTION REPORT:
|
DAT3007I  8 STATEMENTS INSPECTED.
DAT3008I  0 STATEMENT HAVE EXCEPTIONS.
|
DAT3010I  0 ERRORS.
DAT3011I  0 WARNINGS.
DAT3012I  0 NOTICES.
DAT3013I  0 INFORMATION.
DAT3014I  0 UNINSPECTED.
|
DAT4099I TCPIP.DATA STATEMENT PARSING ENDED.
IFO0746I TCPDATA PROCESS COMPLETED SUCCESSFULLY.
IFO0783I TCPDATA PROCESSING ENDED.
```

10.12.4 FTP Inspection

```

IFO0739I PROCESSING FTP FOR PROCEDURE FTPSERVE.
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0940I  FTPD FOUND IN LNKLIST(42) VOL=VTMVSC;DSN=TCPIP.SEZALOAD.
|
IFO0718I SEARCHING FOR SOURCE DATASET(S).
IFO0998I  TCPIP.FTP.DATA FOUND ON VOLUME VPMVSB.
IFO0757I   1 DASD EXTENTS.
|
IFO0938I ALLOCATING SOURCE DATASETS.
IFO0138I  ALLOCATING TCPIP.FTP.DATA; VOL=VPMVSB.
IFO0151I    ALLOCATED TO SYS00204.
IFO0923I  FTP MEMBER CONTENTS ARE AS FOLLOWS:
|-----1-----2-----3---TOP OF MEMBER---5-----6-----
|;*****
|;
|;   Name of File:                tcpip.SEZAINST(FTPDATA)          *
|;
|;   Descriptive Name:            FTP.DATA   (for OE-FTP Server)   *
|;
|;
|;
|;ANONYMOUS                        ; anonymous login accepted
|;ASATRANS      FALSE              ; do NOT translate control characters
|;              ; in ASA text
|AUTOMOUNT      TRUE               ; automatic mount of unmounted volume
|AUTORECALL     TRUE               ; automatic recall of migrated data sets
|AUTOTAPEMOUNT FALSE              ; do NOT automatically mount tape volumes
|;
|;
|;
FTP1001I  INSPECTION DATE FRIDAY, 25 AUG 2019.
FTP1002I  INSPECTOR PROCESSING FTP FOR z/OS V2R4.
FTP1003I  INSPECTION RULES SET FOR z/OS V2R4 - GA.
|
FTP3006I  INSPECTION EXCEPTION REPORT:
|
FTP3007I  21 STATEMENTS INSPECTED.
FTP3008I   0 STATEMENTS HAVE EXCEPTIONS.
|
FTP3010I   0 ERRORS.
FTP3011I   0 WARNINGS.
FTP3012I   0 NOTICES.
FTP3013I   0 INFORMATION.
FTP3014I   0 UNINSPECTED.
|
FTP4099I  TCPIP FTP STATEMENT PARSING ENDED.
|
FTP6099I  TCPIP FTP INSPECTOR ENDED.
|
IFO0746I  FTP PROCESS COMPLETED SUCCESSFULLY.
IFO0783I  FTP PROCESSING ENDED.

```

11 Messages and Codes

Image FOCUS Messages and ABEND Codes are provided in the download email links.

11.1 Supplied Documentation

The supplied documentation can be found in the download email links under:

- Other Image FOCUS Resources:
- System Message Manual
- Inspection Message Manual

11.2 NewEra Technical Support

To Contact NewEra Technical Support use one of the following:

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

11.3 Reporting Problems

When reporting an Image FOCUS problem to NewEra technical support, please provide the following information so that we may resolve the issue expeditiously:

1. The JOBLOG/JCL/MESSAGE output from IFOM, IFOBG and IFOS.
2. The full Image Inspection Report.

When reporting Image FOCUS Installation problems, please provide the following to NewEra technical support:

1. The output from the INSTALL/ALLOC/BUILD job(s).
2. The site-specific 'D M=CPU' information.

Please send this, and any other relevant information, to support@newera.com.

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