The Integrity Controls Environment (ICE) application
Image FOCUS ensures, to the extent possible,
maximum availability of a z/OS Sysplex and its Images.

Image FOCUS

18.0
ICE18

USER 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

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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 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 of Image FOCUS. New users should do the same and, as needed, use this document as a reference during setup and initial familiarization.

1.2.2 Who Should Read this Document

Those given the responsibility to install, maintain, and use Image FOCUS 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 setup and use of the 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:

http://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 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

Image FOCUS is an Integrity Controls Environment (ICE) Application whose primary function is to provide Inspection and Baseline services to users of the z/OS operating system, its subsystems and Parallel Sysplex. Image FOCUS and its components run as a started task under any current release of z/OS.

1.4.1 Inspection Services

Inspection Services performs a "Virtual IPL" of each Image beginning with the validation of the IPL Unit Address and LOADPARM, PARMLIB and PROCLIB. Prevailing members are checked for syntactical correctness and related datasets for referential integrity and attribute characteristics that, if coded incorrectly, would result in a future IPL failure. Subsystem and Sysplex relationships are inspected and/or crosschecked with other Images to insure that each image will behave as a "Valid Image Citizen" in the Sysplex.

1.4.2 Baseline Services

Baseline Services builds and stores a "Blueprint" of valid, viable configurations. Each contains the content of configuration members and/or files discovered during the "Virtual IPL". Each Baseline is automatically updated at a defined monitoring interval. Continuous updates ensure working configuration copies and provide the basis for configuration change detection.

1.4.3 System Components

Image FOCUS is composed of three major components, each of which may be optionally installed and operated independently of the others. A description of each follows:

1.4.3.1 IFOR – For Recovery

When installed to support the Recovery View, the Image FOCUS IFOR started task will maintain its own independent communications subsystem and provide ISPF application support to a single locally attached non-SNA 3270 type console.

1.4.3.2 IFOM – For Multiple Users

When installed as a VTAM application to support multiple simultaneous users, Image FOCUS maintains the IFOM started task. Individual users logon to Image FOCUS via IFOM which in turn automatically starts a new session for each concurrent user. These

individual user sessions are managed by a unique IFOS started task. As users logoff, their session and the related IFOS started task is ended. IFOM, however, remains active waiting to support additional users as they logon.

1.4.3.3 IFOBG – For Background Operations

The Image FOCUS Background (IFOBG) started task will report IPL Event or Image changes that would result in future IPL failures to a designated user or group through the TSO Broadcast Facility or via Email. These notices are sent at intervals controlled by Image FOCUS or optionally by the site's job scheduler.

The results of a successful background interval inspection are stored as Image Package Files. These files are accessible by both Image FOCUS and its sister product, Stand Alone Environment (SAE), and are scanned by the Image Compare Facility, available in both, to determine changes between individual Package Files or a current IMAGE Configuration.

1.5 Product Limitations

When using Image FOCUS keep in mind that we at NewEra have used our professional best efforts to design and build Inspectors that function in accordance with our understanding of available IBM documentation and real-world experience. 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 z/OS user community. Where possible, undocumented of conflicting system behavior will become a part of the overall Inspection "Rule Set" used by the Image Focus Inspection Server.

To aid us in this process, please keep the following in mind as you use Image FOCUS:

1. The Image FOCUS 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 by Image FOCUS or,
    b. Image FOCUS may report errors that do not generate errors during a real IPL.

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

Beginning with release 10.0 of Image FOCUS users will need separate License Keys to unlock the Workbench, Production and Recovery Views.

1.6 Environmental Restrictions

The Integrity Controls Environment (ICE), in which Image FOCUS is executed, 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. Only one locally attached non-SNA 3270 type console per IFOR (Image FOCUS Recovery) address space. If additional user access is needed, the user may start additional IFOR address spaces.

3. Native TSO commands and services are not fully supported.

4. Support for line mode I/O differs from native TSO support of line mode I/O.

5. Local consoles (if used without VTAM) are supported in 24 x 80 mode only.

6. After logging off of IFOR (Image FOCUS Recovery), the user must re-initialize the address space by restarting IFOR before logging on again.

7. The installation procedures for IFOR (Image FOCUS Recovery) allocate a single ISPF profile dataset that will be used for any IFOR user. This is different from TSO and IFOM (Multi-user Image FOCUS) support where each user has a dedicated ISPF profile dataset.

8. 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

Image FOCUS 18.0 is built on the latest ICE code base Version 17 Patch 11. This release includes support for z/OS V3R1.

In this release of the Integrity Controls Environment (ICE), you will find a number of changes to the Primary Menu and subsequent menus that support the Image FOCUS Production and Worksheets Views, Disaster Recovery View, The Control Editor and the ICE Viewer.

1.7.1 SMP/E Installation Method

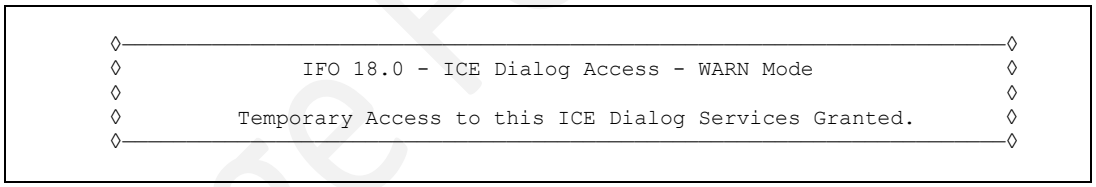
The Integrity Controls Environment version 18.0, of which Image FOCUS is one part, now supports the SMP/E Installation Method. For details, see the **ICE Installation and Configuration User Guide,** a link to which may be found on this page of the NewEra website:

http://www.newera-info.com/Docs.html

1.7.2 Application Controls

In addition to the many Panel and Functional Enhancements, this release introduces ICE Application Control and Logging Features.

For example, entering the Production View for the first time under this release you may be surprised by the following Pop-Up message.



This message is intended to notify ICE users of the level of Application Access and the Control Mode under which their access is being granted – DENY|WARN|NONE. By default, all users are allowed access to ALL ICE Applications with Control Mode set to 'WARN'. If you wish to change these default settings, see the instructions in this document in the section headed 'Defining - ICE User Access Administration & Logging'.

To move beyond the Pop-Up message, press enter or PFK3.

1.7.3 Panel Specific Enhancements

The Interface Panels supporting The Control Editor and ICE Viewer have always conformed to a design standard that supports a common panel layout, multiple methods of function selections and extensive Panel-Specific Help. These design criteria are now being

implemented through all Integrity Controls Environment (ICE) Applications. As a result of this, you will find that many panels and worksheets now appear differently than they did in previous releases. These panel appearance changes notwithstanding; all underlying application functions remain unchanged or have been enhanced to support new data views and/or reports.

1.7.3.1 Navigation

Panel navigation may now be achieved in one of three ways – Command Line, Entry Point, or by selecting Point-and-Shoot Objects. We will use the ICE Primary Menu to describe each method of Navigation.

ICE Primary Menu

```
               ICE 18.0 - The Integrity Control Environment

   P   ProdView  .. - Image Focus Production Views          Userid   - RFAUL1
                                                           Time     - 07:51
   W   WorkView  .. - Image Focus Workbench Views          Terminal - 3278
                                                           System   - ADCD113
   R   DRecView  .. - Image Focus Recovery Views           Applid   - TEST
                                                            Image Focus 18.0
   C   Controls  .. - Controls Environment Settings         Patch Level P0

   V   IPLViews  .. - IPLCheck Results Focal Point

   D   Defining  .. - IFO Definitions and Settings

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

   X   Exit         - Terminate

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

- **Command Line**

Take note of the 'Single Character' that precedes the function's eight-character 'Short Name'. This is the 'Selection Character' for the related function. When this Character is entered on the Option/Command Line and enter is pressed, ICE will immediately summon the requested function.

- **Entry-Point**

Take note of the two dots '..' that follows each function's eight-character 'Short Name'. This is the 'Entry-Point'. To select a related function, place 'S' on the entry point and press enter.

- Point-and-Shoot objects

Take note that the eight-character 'Short Name', always highlighted in white, is a Point-and-Shoot object that can be used for selecting a function. To select a function using this method, cursor under the 'Short Name' and press enter.

1.7.4 Panel Specific Help

It is our goal to provide meaningful Panel-Specific Help that can guide you to a better understanding of the many functions supported in the Integrity Controls Environment (ICE). To do this, we will provide Help Panels, as appropriate, that focus on three information areas – Panel Overview, Column Headings, and Row/Panel Commands/Functions.

1.7.4.1 Panel Overview

The Overview is intended to provide the reader with an understanding of the intent of the panel and the functions it supports.

1.7.4.2 Column Headings

The Column Headings describes the columnar headings used in tabular displays and worksheets.

1.7.4.3 Row/Panel Commands

The Row/Panel Commands describe the function to be performed by an available command. Many, but not all, Command Entry-Points will recognize '/' as a call for 'Field-Sensitive' help.

1.7.5 Field Sensitive Help

Many, but not all, TCE Panels will now support Field Sensitive Help. To display Field Help place '/' on a Field Command Entry-Point and press enter. This action will display a Help Pop-Up. Press PFK3 to remove the Pop-Up and redisplay the original full panel.

1.7.6 Support for ICE/OPER

This release of ICE adds support for ICE/OPER and its applications: Command Logging, OPER/MVS and OPER/RACF. For more information, see the Getting Started with ICE/OPER and its Applications, a link to which may be found on this page of the NewEra website:

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

1.8 System Requirements

1.8.1 Prerequisites

To use Image FOCUS, you will need the Integrity Controls Environment (ICE) 18.0 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 non-SNA locally attached console that supports 24X80 mode (Recovery Mode) or 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. Once the License Key is inserted in the ICE Control Member NSEPRM00, the functions of Image FOCUS will be unlocked and become immediately accessible from the ICE Primary Menu.

1.9 Solving Real-World Problems

- "…I always wanted to expand the role of Image FOCUS in our organization in order to involve other z/Enterprise support teams but that was hard to do with its limited notification and report distribution capabilities. Problem solved! In the latest release notification and report distribution have been enhanced to the point that I, now the Image FOCUS Administrator, can easily route IFO Events, Inspection Findings and Configuration Changes, to anyone in the organization, IT Management, IT Security, the Network team and, of course, specific z/Enterprise System Programming Teams. I can specify - Overall, Management, Summary and/or Detail - Report Content, mix and match whatever the individual recipient may need. And what I really like is that each recipient gets only one email with the content they want the way they want it. So cool!"

- "...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 solved all of that for us. With its "Virtual IPL" capabilities today we can execute a virtual start of z/OS anytime we like 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 guard against future IPL failures. We wrote and submitted our justification for approval but management just couldn't give the "Green Light" because of other financial priorities. I am happy to say that Image FOCUS optional component, IPLCheck, solved all financial concerns. We acquired a license for our six production LPARs. Management now thinks of LPAR Inspection as *MUST HAVE*. The full Image FOCUS is next on our list!"

- "…our system audit reviews are done as part of our financial audit process. We have been written up several times for not having adequate documentation of actual changes. We do a good job of documenting what we are *going to do* but not what we *actually did*. Image FOCUS filled this hole in our change management process by automatically building configuration baselines, using them to detect and report changes. This really solved two problems for us. First, we're off the *Hot Seat; second, we now have an ongoing process that ensures a full backup of a viable configuration for each Image.*"

- "…the thing we like best about the way NewEra is approaching the distribution of its system software environment and its applications is that it allowed us to get started with minimal effort and expense, focusing on what we believed to be our most critical issue, LPAR integrity. As we get comfortable with the process we can, at any time, move on to more global z/OS concerns: Sysplex and Subsystem Inspections, Baselines, Change Detection, Release Analysis, 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 Table of Contents

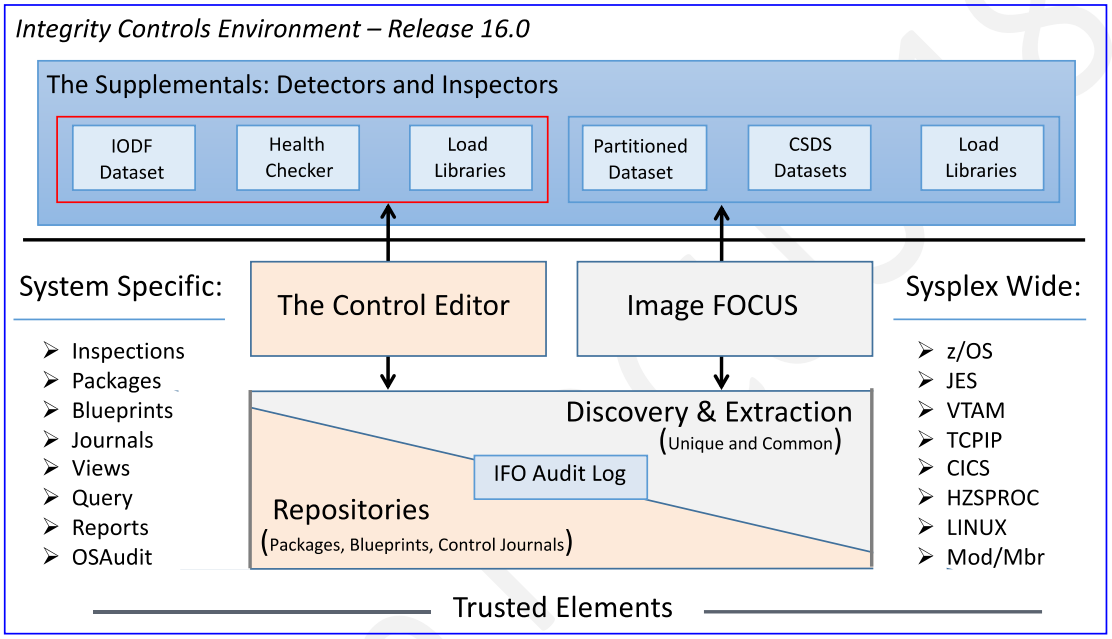
3 The Integrity Controls Environment (ICE)

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



3.1 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.

3.2 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).

3.3 The Supplementals

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

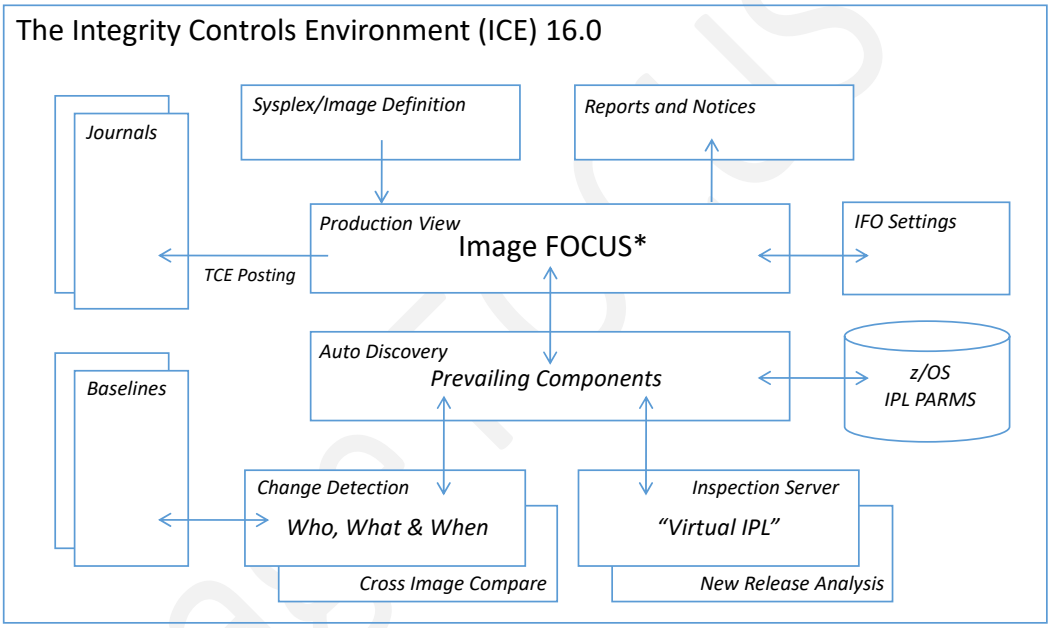
4 About Image FOCUS

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

4.1 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 element in an Information System is critical to the success of the organization and its partners, customers, and employees 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.

4.2 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".

4.3 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.

4.4 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.

4.5 Change Detection

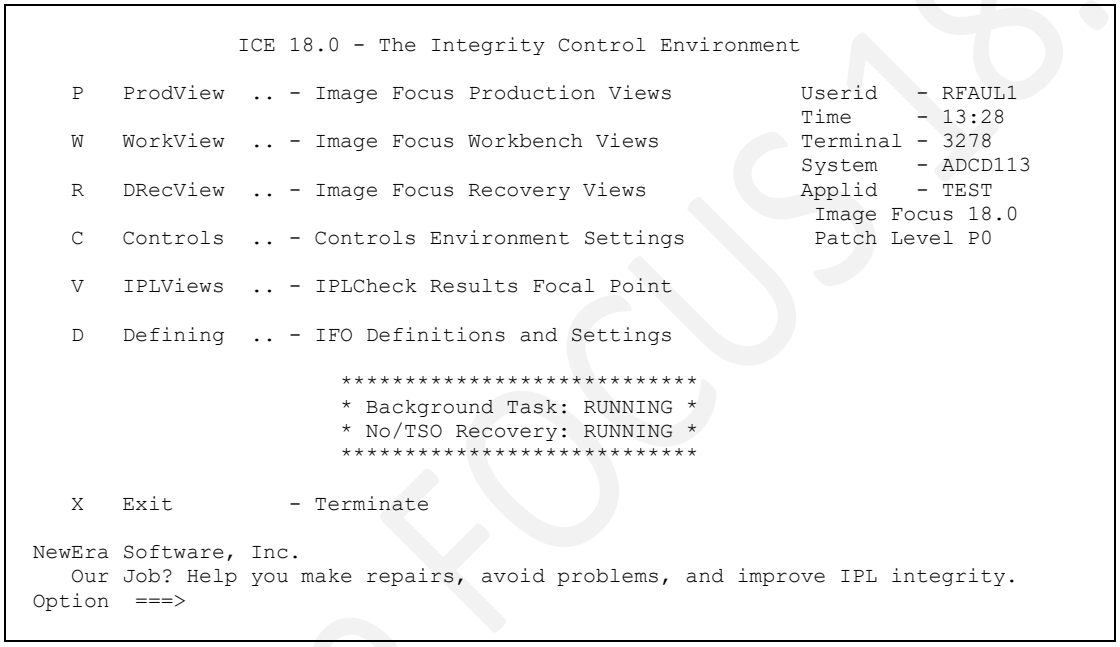
The Package is the "Blueprint" of a valid, viable Sysplex and/or Image. It contains the content of the members and configuration files used in the IPL process. Each Image Package is automatically updated and maintained by the Image FOCUS Inspection Server during a Monitoring Interval. This continuous 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.

4.6 Logging on to Image FOCUS

Once the Integrity Controls Environment (ICE) is installed and Image FOCUS (IFO) is 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".



4.7 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 are sent.

4.8 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.

4.9 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.

4.10 The Control Editor

The Control Editor is an optionally licensed application of the Integrity Controls 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. In Image FOCUS 18.0, the DELETE, RESTORE and RENAME capabilities in Control Editor are all available. Image FOCUS 18.0 also allows the user to run Control Editor under TSO.

4.11 The Viewer

The Viewer provides direct access to the IPLCheck Family of applications. IPLCheck applications are Predictive Failure Analysis (PFA) “Health Checks”. The analytic processes that they use are based on NewEra’s proven z/OS Inspection Server Technology.

4.12 Definitions and Settings

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.

4.13 Functional Notices

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

```
*****************************
* Background Task: RUNNING  *
* No/TSO Recovery: RUNNING  *
*****************************
```

4.13.1 Background 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.

4.13.2 No/TSO 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.

4.14 Operational Considerations

4.14.1 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.

4.14.2 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.

4.14.3 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.

5 Product Installation

Image FOCUS is one of several applications that execute within the Integrity Controls Environment (ICE). To install ICE and activate Image FOCUS, 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

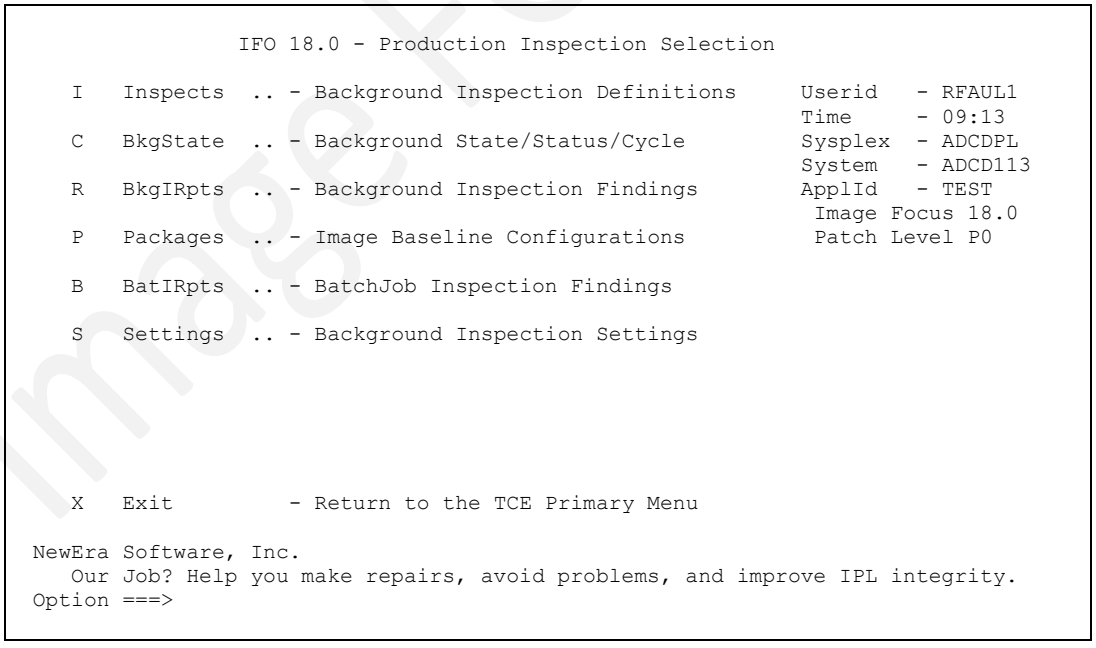
6 The Production View

The Production View supports functions that are used to enable the interval monitoring of an Image FOCUS-managed Sysplex/Image. Once active, this critical monitoring function will call the Inspection Server as needed to perform a Sysplex-wide validation of the current configuration components that define any of a number of production or test environments. As directed by optional settings, each is inspected; Blueprints (Packages) are updated and "Need to Know" notices are sent by TSO Broadcast or Email via the Internet with attached Inspection Logs, if desired.

In order for the Production View to become active, you must do all of the following five things:

1. Configure and start IFOBG;
2. Define a Sysplex/Image for Inspection;
3. Run at least one Inspection of the defined Sysplex/Image;
4. "Promote" or "ADD" the defined Sysplex/Image to the Production View,
5. Enable the "Promoted/ADDED" Sysplex/Image.

The Status and Control Monitor, which is discussed in this section, can help you quickly understand the operational condition of the Monitor (IFOBG), pinpointing problems if they exist. To access the Production View, from the ICE Main Menu, select the “ProdView” option. This action will display the Production Inspection Selection menu, shown below.

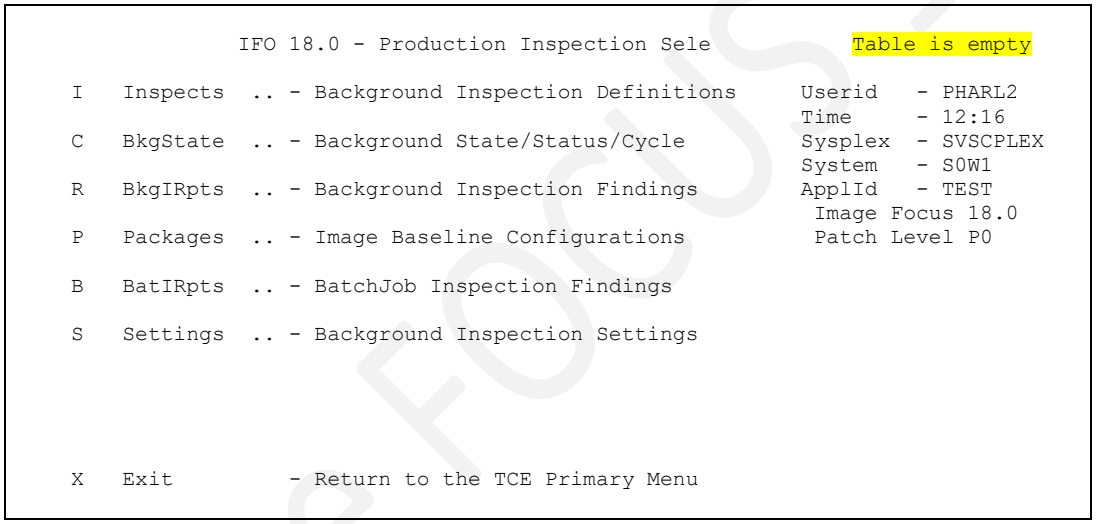


6.1 Inspects

To view the current Production View definitions, Enable/Disable a defined Sysplex/Image for Inspection, or to access the most recent Monitor Inspection Reports, select the "Inspects" Option.

6.1.1 Images not defined

To Enable a Sysplex/Image for Monitor (Background) processing, it must first be defined and “Promoted” (Added to the list of Images to process) to the Production View. If no Sysplex/Images are defined or there are no defined Sysplex/Images that have been "Promoted" to the Production View, a message will display indicating that the Table is Empty.



6.1.2 Defining an IMAGE

If no Sysplex/Images appear in the list or you do not see a desired Sysplex/Image, you will need to make certain that the following actions have been taken from within your Workbench View:

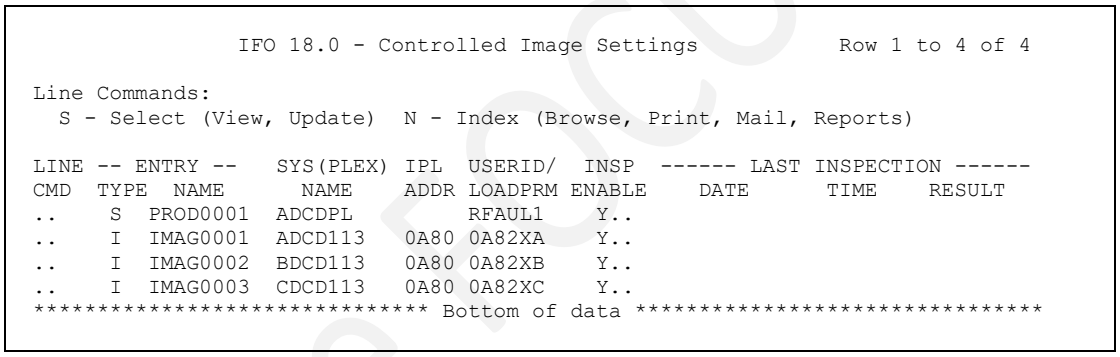
- The Sysplex/Image has been defined;
- An Inspection of the Sysplex/Image has been run;
- The Sysplex/Image has been "Promoted/ADDed".

Therefore, if you have not yet defined a Sysplex/Image, have not run an Inspection, or have not "Promoted" a Sysplex/Image, please return to the Production View Menu. From this menu, select the “Settings” option and then the “MakeCopy” option. In the panel that appears, you may now "Promote/ADD" the desired Sysplex/Image from the Workbench to the Production View. When this is complete, return to the Production View Menu and re-

select the “Inspects” option. This action will redisplay the Production Definition Settings Screen with a list of Images that are now available for Monitor processing.

6.1.3 Sysplex/Images must be enabled

If a Sysplex/Image list appears in the Production Definition Settings Screen, you will need to mark entries in it for processing by setting the corresponding value of "INSP ENABLE" column to "Y" and pressing enter. This action will immediately add the enabled SYSPLEX/Image to the Monitor Surveillance List and then redisplay the screen. When the Monitor runs, it will reference the Monitor Surveillance List to determine which Sysplex/Images are Enabled. If the Sysplex/Image is Enabled, it will be processed as scheduled and the values in this panel will be automatically updated with the Date, Time and Monitor Inspection Result. When you return to review Monitor Results, use the Report Index, Option "N" to select Sysplex/Image Inspection Logs. If, at some later date, you want to exclude a Sysplex/Image from the Monitor Surveillance List, change the value of "INSP ENABLE" to "N" and press enter. This action would immediately unmark the Sysplex/Image, removing it from the Monitor Surveillance List and redisplay the screen.



```
                IFO 18.0 - Controlled Image Settings          Row 1 to 4 of 4

Line Commands:
  S - Select (View, Update)  N - Index (Browse, Print, Mail, Reports)

LINE -- ENTRY --   SYS(PLEX) IPL  USERID/  INSP  ------ LAST INSPECTION ------
CMD  TYPE  NAME      NAME    ADDR LOADPRM ENABLE    DATE      TIME    RESULT
..    S  PROD0001  ADCDPL         RFAUL1    Y..
..    I  IMAG0001  ADCD113   0A80 0A82XA    Y..
..    I  IMAG0002  BDCD113   0A80 0A82XB    Y..
..    I  IMAG0003  CDCD113   0A80 0A82XC    Y..
****************************** Bottom of data ********************************
```

Actions to enable or disable an Image will become effective with the next cycle of the background process as it starts a new Inspection cycle.

6.2 MakeCopy

To view a list of Sysplex/Image(s) defined within your personal Workbench (shown on the left in the panel below) and a list of Sysplex/Image(s) currently defined (but not necessarily Enabled for Monitoring) to the Production View (shown on the right in the panel below), from the Production View Main Menu, select the "Settings" option and then the “MakeCopy” option. This will display the Making an Image/Sysplex Copy panel. Using the options available, you may "Promote/ADD", "Replace" or "Delete" a Sysplex/Image(s) as defined within your Workbench to the Production View.

Note: You may use options available from this panel to promote or delete Sysplex Entries, noted as type "S" in the "ENTRY/TYPE" column. Other uses will display "Invalid Line Command".

```
               IFO 18.0 - Making an Image/Sysplex Copy       Row 1 to 8 of 8

Line Commands:
 P - Promote Sysplex  PR - Promote Sysplex w/replace  D - Delete Sysplex

              Workbench   >>--------------->   Production
---------------------------------  -------------------------------
LINE -- ENTRY --    SYS PLEX) IPL      -- ENTRY --   SYS PLEX) IPL
CMD  TYPE  NAME       NAME    ADDR     TYPE  NAME     NAME    ADDR
..    S  PROD0001  ADCDPL
..    I  IMAG0001  ADCD113   0A80
..    I  IMAG0002  BDCD113   0A80
..    I  IMAG0003  CDCD113   0A80
..                                     S  PROD0001  ADCDPL
..                                     I  IMAG0001  ADCD113   0A80
..                                     I  IMAG0002  BDCD113   0A80
..                                     I  IMAG0003  CDCD113   0A80
****************************** Bottom of data ********************************
```

6.2.1 Workbench Entries

The entries shown in the left most columns are derived from your Workbench and are shown in related Sysplex/Image Groups. To "PROMOTE" or "PROMOTE w/replace" a Group to Production, place the Line Command selection character "P" or "PR" before the Sysplex Entry Name and press enter. The entire Group will be promoted to Production and the panel redisplayed. You will notice that the selected entry will now appear to have moved from the left side of the panel to the right side. This visual display has no effect on the actual underlying Workbench definitions. If you wish to redisplay/refresh the panel, PFK3 out to the Production View Main Menu and reselect the "MakeCopy" Option. This will redisplay the Production Definition Actions panel with all columns fully populated.

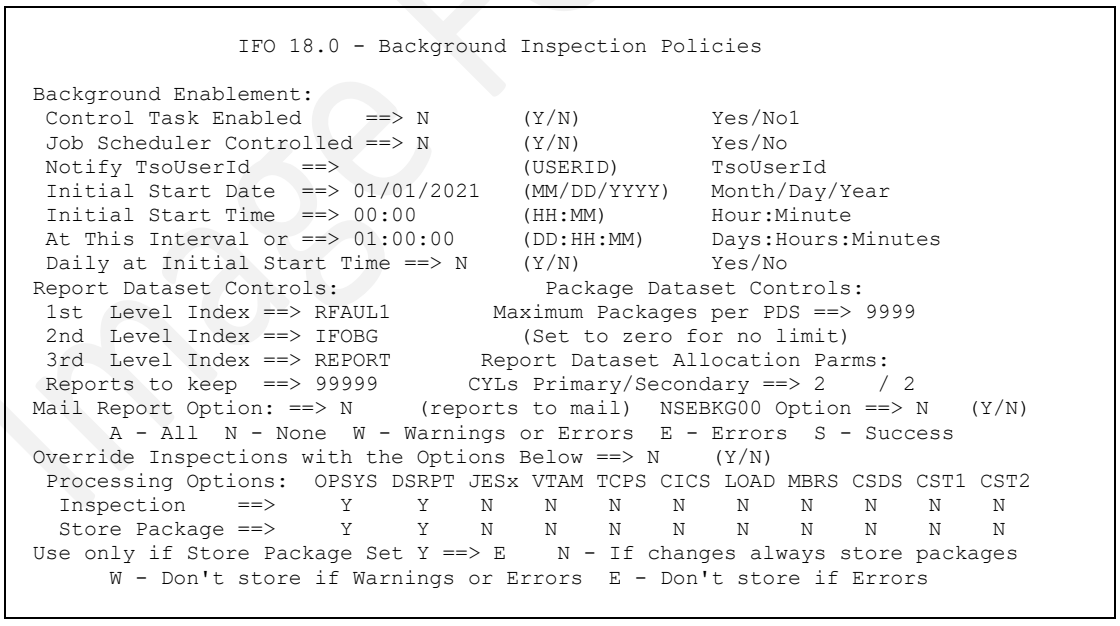
6.2.2 Production Entries

The entries shown in the right most columns are derived from the shared Image FOCUS Workgroup Settings that define Production Sysplex/Image(s). If you wish to Delete/Remove a Sysplex/Image Group, place the Line Command selection character "D" before the Sysplex Entry Name and press enter. The entire Group will be Deleted from Production and the panel redisplayed. You will notice that the selected entry will no longer appear. If you wish to redisplay/refresh the panel, PFK3 out to the Production View Main Menu and reselect the "MakeCopy" Option. This will redisplay the Production Definition Actions panel with all columns fully populated.

Note: Care should be taken when Deleting a Sysplex/Image Group from Production as this action will dynamically remove the Group from the Production Definition Settings panel, limiting access to the most recent Monitor Inspection. If this proves to be a problem, use the "Reports" option found on the Production View Main Menu to access the complete Report Inventory.

6.2.3 Background Options

Once Sysplex/Image Groups are defined, promoted to production and enabled, the next step is tailoring the Monitor Options to meet your specific site needs. To do this, select the “Settings” option, from the Production View Main Menu and then select the “BkgIOpts” option. This action will immediately display the Background Options Menu.



```
               IFO 18.0 - Background Inspection Policies

Background Enablement:
 Control Task Enabled     ==> N       (Y/N)          Yes/No1
 Job Scheduler Controlled ==> N       (Y/N)          Yes/No
 Notify TsoUserId    ==>              (USERID)       TsoUserId
 Initial Start Date  ==> 01/01/2021   (MM/DD/YYYY)   Month/Day/Year
 Initial Start Time  ==> 00:00        (HH:MM)        Hour:Minute
 At This Interval or ==> 01:00:00     (DD:HH:MM)     Days:Hours:Minutes
 Daily at Initial Start Time ==> N    (Y/N)          Yes/No
Report Dataset Controls:                Package Dataset Controls:
 1st  Level Index ==> RFAUL1        Maximum Packages per PDS ==> 9999
 2nd  Level Index ==> IFOBG           (Set to zero for no limit)
 3rd  Level Index ==> REPORT       Report Dataset Allocation Parms:
 Reports to keep  ==> 99999       CYLs Primary/Secondary ==> 2    / 2
Mail Report Option: ==> N     (reports to mail)  NSEBKG00 Option ==> N   (Y/N)
     A - All  N - None  W - Warnings or Errors  E - Errors  S - Success
Override Inspections with the Options Below ==> N    (Y/N)
 Processing Options:  OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
  Inspection    ==>     Y     Y    N    N    N    N    N    N    N    N    N
  Store Package ==>     Y     Y    N    N    N    N    N    N    N    N    N
Use only if Store Package Set Y ==> E    N - If changes always store packages
      W - Don't store if Warnings or Errors  E - Don't store if Errors
```

6.2.4 Monitor Interval Control

The interval at which the Monitor will run can be controlled in one of two ways: directly by Image FOCUS or by your Job Scheduler. If the Job Scheduler option is selected, the Interval Options Start Date, Start Time and Interval become 'not applicable'.

6.2.4.1 Monitor Task Enable

Setting the value of this option to "Y" will result in the running of the Monitor under the control of Image FOCUS. In addition, to make certain that the Monitor runs as required, you will want to set the Start Date, Start Time and Interval options.

6.2.4.2 Job Scheduler Controlled

Setting the value of this option to "Y" will result in the running of the Monitor under the control of your site's Job Scheduler. If this is the case, it will also be necessary for you to modify the Scheduler's Job Stream to include the necessary PROC for starting IFOBG. The Job Scheduler is then responsible for starting IFOBG as defined. Once started by the scheduler, IFOBG runs its inspections immediately and terminates upon completion.

6.2.5 Monitor Interval Scheduling

If you are using Image FOCUS to schedule the Monitor, you will need to provide the following:

6.2.5.1 Start Date

This is the date after which Monitor processing can begin.

6.2.5.2 Start Time

This is the Time on the Start Date after which Monitor processing can begin.

6.2.5.3 Interval

This is the interval at which Monitor processing will be conducted, once the Start Date and Start Time have been reached.

For Monitor processing to begin at a requested Interval, both the Start Date and the Start Time MUST have been reached. If either the Start Date or the Start Time is in the "Future", Image FOCUS will wait until that time before beginning Monitor processing.

6.2.5.4 Notify

Notify will provide the TSO USERID of the individual, operator or WTO Monitor to be notified of Monitor operation and results.

6.2.6 Report Datasets

The Monitor process will generate Inspection Logs. The location and number of these logs is controlled as follows:

6.2.6.1 High-Level Qualifiers

Monitor Inspection logs are stored using the values specified in the 1st, 2nd and 3rd Level Index Fields. Overtype the default values to your site standards, being certain to use only valid dataset naming characters.

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.

6.2.6.2 Reports to Keep

To limit the number of Monitor Inspection report datasets, set this value to the desired limit. Image FOCUS will retain the specified limit for each sysplex/image relationship defined in Production. If the value is set to 99999, all report datasets are kept.

6.2.7 Monitor Email

During each Monitor interval, certain notices of change in Package/Blueprint content and/or Inspection results can be sent on a "Need to Know" basis. These notices may be sent by TSO Broadcast or sent by Email. To use the TSO Broadcast Facility and send a notice to an Individual, an Operator or a WTO Monitor, you specify a single TSO USERID as the value of the Notify Option. If you plan to use Email, you will need to configure Image FOCUS to understand the location of an active SMTP Server. Then configure Image FOCUS, return to the Production View Main Menu and select the “Settings” option and then the "BkgIOpts" option to access Background Inspection Policies.

6.2.7.1 Email Options

Once you have configured Image FOCUS to send mail, return to this panel and set the Monitor Email Report Options as desired.

- N - Will not send an Inspection Log by Mail.
- A - Will send a log by mail with each Background Interval regardless of Inspection Result.
- W - Will send a log only if the Inspection Result indicates either a Warning or Error.
- E - Will send a log only if the Inspection Result indicates an Error.
- S - Will send a log only if the Inspection Result indicates a Success, meaning no Errors or Warnings were found.

In order for notifications to be sent, please ensure that you configure the Mail Monitor Settings as described below in Section 6.7.

6.2.7.2 NSEBKG00 Options

Once you have configured Image FOCUS to send mail, return to this panel and optionally set the value of NSEBKG00 Options to ‘Y’. This action will disable the default Email Notification Functions and enable the Enhanced Notification Function defined in the Image FOCUS Control Member NSEBKG00.

In order for the Enhanced Notification Function to work, please see Section 6.7.2 below on configuring the NSEBKG00 member.

6.2.8 Package/Blueprint/Baseline Control

6.2.8.1 Number to Keep

To limit the number of Package/Blueprint datasets, set this value to the desired limit. If the value is set to ZERO, all datasets are kept.

6.2.8.2 Bypass Blueprinting

By default, Blueprints are only stored when configuration changes are noticed and Inspection Results indicate that no Errors were found. However, if you would like to store updates under other conditions, this option will allow you to do so.

It is RECOMENDED that Blueprints NOT be stored when Inspection results indicate Error or Warnings as doing so may limit the opportunity for system recovery in the event of an IPL failure.

6.2.9 Overriding Inspection Definitions

Each member of an Image FOCUS Workgroup may define a Sysplex/Image Group as desired. This flexibility may result in certain inconsistencies between Sysplex/Image Group definitions. If needed, all Sysplex/Image Group definitions may be synchronized in a two-step process that will override, but not change, defined Inspection Definitions.

6.2.9.1 Override

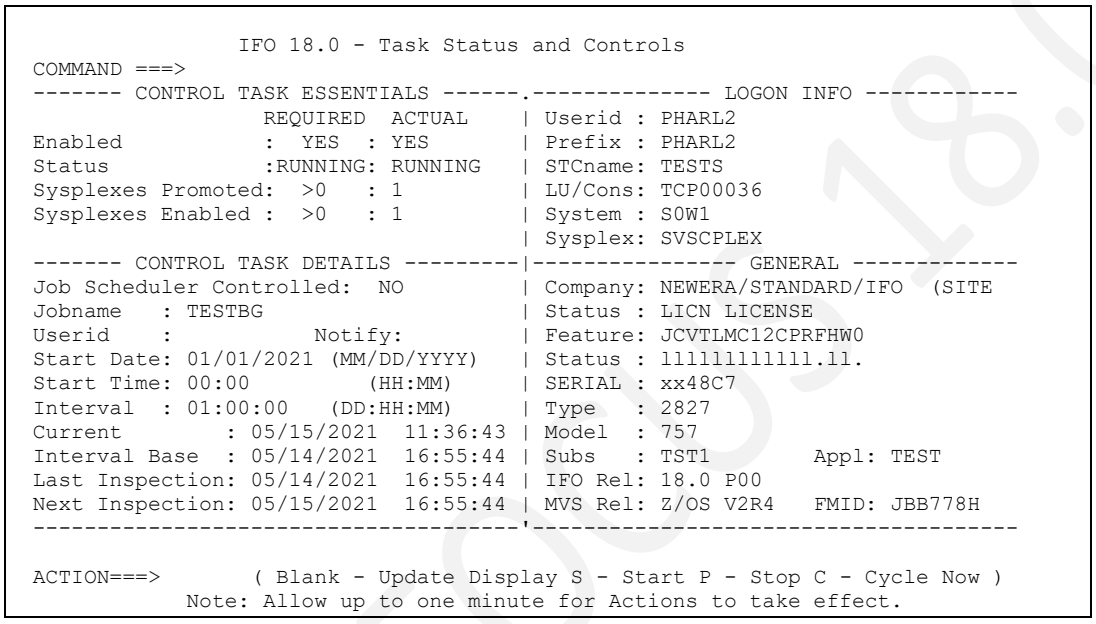
The first step to synchronizing Inspection Definitions is to set the value of "Override Inspections with the Options Below" to 'Y'.

6.2.9.2 Processing Options

The second step is to set the override values for the Processing Options: Inspection and Package Store across the matrix of available Inspectors.

6.3 Status Monitor

The Status monitor displays key information regarding the Monitor Task (IFOBG), current user/system information, Image FOCUS licensing information and provides certain action commands. It is accessed by selecting the "BkgState" option from the Production View Main Menu.



Note: Allow up to one minute for actions to take effect.

6.3.1 Overview

The Status Monitor display is divided into various sections as described below:

6.3.1.1 Monitor Task Essentials

The Status Monitor lists items that are required for the Monitor task to run. The "ACTUAL" and "REQUIRED" values are shown so that it can be determined if IFOBG is going to be able to run.

6.3.1.2 Monitor Task Details

The Status Monitor lists information concerning Monitor operations. The display includes the method of Monitor control, the Monitor Job Name, all Interval Settings, when the last inspection was run and when the next inspection will begin. The Status Monitor also displays information captioned as "FOREGROUND" and "GENERAL" information.

6.3.1.3 Logon Information

This informational display reveals the identity of the current Image FOCUS user and system.

6.3.1.4 General Information

This informational display reveals Image FOCUS Licensing and Installation-specific information.

6.3.1.5 Action Commands

In addition, IFOBG can be started, stopped, and forced to run an inspection using the "BG ACTION" commands. To use a command, place the single character ID on the command line and press enter. This action will immediately execute the command and redisplay the screen.

- **Start**

  If the Background is "DOWN", you can start it using this command.

- **Stop**

  If the Background is "UP", you can stop it using this command.

- **Cycle**

  If you would like to "RUN" the Background "NOW", do so using this command. Any stored packages will become available upon completion of the background cycle.

  Because of the nature of the Background process, it will take at least one minute for any of the "BG ACTION" commands to take effect.

6.4 Report Operations - BkgIRpts – Background Inspection Findings

All Inspection Reports run by the Background process are accessed from the Production View Menu by selecting the “BkgIRpts” option. Select this option displays the Background Inspection Reports Menu.

```
                IFO 18.0 - Background Inspection Reports

   C   Clusters  .. - Full Inspection Report Clusters       Userid   - PHARL2
                                                           Time     - 16:25
   D   DshBoard  .. - Local Sysplex Inspection Findings     Sysplex  - SVSCPLEX
                                                           System   - S0W1
   A   AllPlexs  .. - Sysplex Access - Local and Remote     ApplId   - TEST
                                                            Image Focus 18.0
                                                            Patch Level P0



   X   Exit         - Return to the TCE Primary Menu

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

Background Inspection and Configuration Change Findings are stored in Report Clusters and Package Datasets. A Report Cluster is a single Dataset containing All Image Inspections, Image Audit Reports, The Sysplex Inspection, The Individual Image Crosscheck, Image Change Summaries and Image Change Detail Reports. Use the options available from this panel to access and display Image/Sysplex Findings and related Configuration Changes, if any.

6.4.1 Classic view of Report Clusters

Selecting the “Clusters” option will show the Classic View of the Report Clusters:

```
                IFO 18.0 - Available Inspection Reports      Row 1 to 15 of 15
                              Controlled Sysplex
Line Commands:
  S - Select Report    D - Delete Report    DF - Delete Force
                                                      DATA SET NAME
CMD DATE       TIME   NAME     CLUST  ITEMS RESULT  IFO.TESTBG.REPORT.
..  05/14/2021 16:53  PROD0001  Y P      6  ERROR      D2021134.T1653151
..  06/01/2021 09:17  PROD0001  Y        3  ERROR      D2021152.T0917067
..  05/31/2021 09:14  PROD0001  Y        3  ERROR      D2021151.T0914514
..  05/30/2021 09:12  PROD0001  Y        3  ERROR      D2021150.T0912343
..  05/03/2021 12:00  PROD0001  Y        3  ERROR      D2021123.T1200025
..  05/02/2021 11:57  PROD0001  Y        3  ERROR      D2021122.T1157509
```

6.4.2 Enhanced View of Report Clusters

Selecting either the “DshBoard” or “AllPlexs” option provides access to unique Cluster content display options and reports. Ultimately, at the Image Level, both the “DshBoard” and “AllPlexs” options provide the same displays and reports. They differ only in that the “DshBoard” option is specific to the running Cluster Definition while the “AllPlexs” option allows you to define “Remote Clusters” affording access to all – Local and Remote – Inspection Findings and Configuration Changes.

Selecting the “DshBoard” displays the Background Inspection Summary. Note that because of the ‘High Level’ of summarization presented, there may be some delay in panel display. Following initial usage, and assuming frequent usage, there should be no noticeable delay in display. Panel-Specific Help is available by pressing PFK1.

The Background Inspection – Summary Panel

```
               IFO 18.0 - Background Inspection - Summary     Row 1 to 6 of 6
 --NSIMBLX 0913--                                              ---IFOClusters---
--------------- Environment is IFO.TEST - 3 Sysplex/Image Pairs ---------------
Row Selections: Shows_Finding_Timeline_Report Display_Image_Inspection_Timeline
- Row -----Last Inspection Findings------ Your ---------Period to Date---------
S Num -Target- -Images- -Date-Time-Finds- News Days Week Mths Qtrs Years Totals
_ 001 PROD0001 IMAG0001 19/05/14-16:55-E-    0    1    1    1    1     1     14
_ 002 PROD0001 IMAG0002 19/01/15-16:42-E-    0    0    0    0    0     0      1
_ 003 PROD0001 IMAG001A 19/05/14-16:55-E-    0    1    1    1    1     1      1
_ 004 -------- -------- ----------------- ---- ---- ---- ---- ---- ----- ------
_ 005                   Available_Reports    0    2    2    2    2     2     16
_ 006 ======== ======== ================= ==== ==== ==== ==== ==== ===== ======
****************************** Bottom of data ********************************
```

The Timeline Report is an overview of all Background Events for a selected Image. It shows a Summary of Sysplex, Image and Supplemental Findings and/or Changes.

```
/*****************************************************************************/
/*                                                                           */
/*        Background Inspection Findings - Inspection Timeline Detail        */
/*                  Sysplex - PROD0001 - Image - IMAG0001                    */
/*              Date:2019/05/14 - Time:17:00:52 - User:PHARL2                */
/*                                                                           */
/*****************************************************************************/

  Row ----Inspection Findings---- ----Interval---- ---Supplemental Findings---
  Num PLX ZOS JES HCK VTM TCP CIC yyyy/mm/dd hh:mm LOD MBR CSD APF DSN VOL CNG
  --- --- --- --- --- --- --- --- ---------- ----- --- --- --- --- --- --- ---
  001 Err EWN Off --- Off Off Off 2021/05/14 16:55 Off Off Off 124 190 070 Unk

/*****************************************************************************/
/*                                                                           */
/*                     IFO.TEST.$TCETEMP.REPORTS($INSDTL)                    */
/*                                                                           */
/*****************************************************************************/
```

The Image Inspection Timeline is a worksheet-based, interactive version of the Inspection Findings Timeline Report.

The Sysplex-Image Findings Timeline

```
               IFO 18.0 - Sysplex-Image Findings Timeline   Row 1 to 14 of 14
 --NSIMBLX 0913--                                           -Images Timeline-
------------ Sysplex:PROD0001 Image:IMAG0001 - 14 Inspection Events -----------
Row Selections: Sysplex_Inspection Inspection_Elements Configuration_Difference
- Rows ----Inspection Findings---- ----Interval---- ---Supplemental Findings---

_ ____ ___ ___ ___ ___ ___ ___ ___ __________ _____ ___ ___ ___ ___ ___ ___ ___
S Numb PLX ZOS JES HCK VTM TCP CIC yyyy/mm/dd hh:mm LOD MBR CSD APF DSN VOL CNG
_ 0001 Err EWN Off --- Off Off Off 2021/05/14 16:55 Off Off Off 124 190 070 Yes
_ 0002 Not EWN -W- --- EW- --- Off 2021/06/01 09:19 Off Off Off 124 201 070 Unk
_ 0003 Not EWN -W- --- EW- --- Off 2021/05/31 09:17 Off Off Off 124 201 070 Unk
_ 0004 Not EWN -W- --- EW- --- Off 2021/05/30 09:14 Off Off Off 124 201 070 Unk
_ 0005 Not EWN -W- --- EW- --- Off 2021/05/03 12:02 Off Off Off 124 201 070 Unk
_ 0006 Not EWN -W- --- EW- --- Off 2021/05/02 12:00 Off Off Off 124 201 070 Unk
_ 0007 Not EWN -W- --- EW- --- Off 2021/05/01 11:57 Off Off Off 124 201 070 Unk
_ 0008 Not EWN -W- --- EW- --- Off 2021/04/30 11:55 Off Off Off 124 201 070 Unk
_ 0009 Not EWN -W- --- E-- --- Off 2021/04/29 16:37 Off Off Off 124 200 070 Nop
_ 0010 Not EWN -W- --- E-- --- Off 2021/04/26 10:34 Off Off Off 124 200 070 Nop
_ 0011 Not EWN -W- --- E-- --- Off 2021/04/25 10:32 Off Off Off 124 200 070 Nop
_ 0012 Not EWN -W- --- E-- --- Off 2021/04/24 10:31 Off Off Off 124 200 070 Nop
_ 0013 Not EWN -W- --- E-- --- Off 2021/04/23 18:50 Off Off Off 124 200 070 Yes
_ 0014 Not EWN -W- --- Off Off Off 2021/01/15 16:42 Off Off Off 124 195 070 Yes
****************************** Bottom of data ******************************
```

Take note that this display, like the Timeline report, is a Historical Record of Background Events. Depending on your Cluster and Package/Baseline Retention policy, it is possible that older Clusters and Configuration Baselines may have been deleted. In such cases, a Pop-Up message is displayed indicating that the Cluster and/or Package/Baseline is no longer available.

This Worksheet supports three Row Commands, each of which displays additional finding details – Sysplex Inspection, Inspection Elements, Configuration Changes. The fields in White are 'Point-and-Shoot' sensitive. Panel-Specific Help is available by pressing PFK1.

The Sysplex Inspection is extracted directly from the selected Report Cluster and is displayed in Worksheet format. The results of the Inspection are shown in the first Row of the Worksheet. To show all Inspection Records matching the overall Finding, cursor under the 'Fnd' field shown in that row and press enter. Cursor under the 'Fnd' field and press enter again to re-expand the worksheet. Panel-Specific Help is available by pressing PFK1.

Sysplex Inspection Worksheet

```
               IFO 18.0 - Sysplex Inspection Findings      Row 1 to 33 of 110
 --NSIMBLX 0913--                                         --Sysplex Detail--
-------------- Sysplex:PROD0001 - 110 Sysplex Inspection Records --------------
Row Selection: Full_Sysplex_Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------
_ _____ _______ ___ ________________________________________________________
S -Rec- --Key-- Fnd ----------------------UnFiltered-------------------------
_ 00001 IFO0999 ERR REPORT FOR SYSPLEX PROD0001 ENDED WITH ERRORS.
_ 00002 IFO1003 AOK SYSPLEX INSPECTION REPORT.
_ 00003 IFO1114 ERR INSPECTION ENDED WITH ERROR.
_ 00004 IFO1000 AOK BACKGROUND EXECUTION ON 05/14/2021 AT 16:55:44.
_ 00005 IFO0000 AOK  REPORT DATASET:  'IFO.TESTBG.REPORT.D2021134.T1653151'.
_ 00006 IFO1008 AOK  PACKAGE INDEX DATASET: 'IFO.TEST.PACKAGE.INDEX'.
_ 00007 IFO1539 AOK MULTISYSTEM TYPE SELECTED DUE TO MULTIPLE IMAGES DEFINED.
_ 00008 IFO1500 AOK PROCESSING IMAGE NUMBER 1.
_ 00009 IFO1501 AOK  OPSYS INSPECTION COMPLETED WITH ERRORS.
_ 00010 IFO1502 AOK  SYSPLEX=SVSCPLEX; SYSNAME=S0W1; SYSCLONE=W1.
_ 00011 IFO1503 AOK  IPLUNIT=1000; IODFUNIT=0CE3; LOADPARM=0CE3W1.1.
_ 00012 IFO1504 AOK  PLEXCFG=MULTISYSTEM; GRS=TRYJOIN; ETRMODE=YES; STPMODE=; S
_ 00013 IFO1548 AOK  BPXPRM SYSPLEX=NO.
_ 00014 IFO1544 AOK ASSOCIATED SYSTEM INFORMATION.
_ 00015 IFO1545 AOK NO ASSOCIATED IPL INFORMATION AVAILABLE.
_ 00016 IFO1545 AOK NO ASSOCIATED IOS INFORMATION AVAILABLE.
_ 00017 IFO1505 AOK CHECKING SYSPLEX ELIGIBILITY FOR IMAGE NUMBER 1.
_ 00018 IFO1506 AOK  CHECKING SYSPLEX PRIMARY COUPLE DATASET.
_ 00019 IFO1508 AOK  DSN=COUPLE.PXCF.CDS.
_ 00020 IFO1509 AOK  PRIMARY COUPLE DATASET VERIFIED.
_ 00021 IFO1531 AOK  CHECKING COUPLE DATASET SPECIFICATIONS.
_ 00022 IFO1521 AOK  CHECKING SYSPLEX DATASET.
_ 00023 IFO1534 AOK   PRIMARY DATASET=COUPLE.PXCF.CDS; VOL=VPSMSB.
_ 00024 IFO1534 AOK   ALTERNATE DATASET=COUPLE.AXCF.CDS; VOL=VPSMSD.
_ 00025 IFO1521 AOK  CHECKING ARM DATASET.
_ 00026 IFO1535 AOK   PRIMARY DATASET NOT DEFINED.
_ 00027 IFO1535 AOK   ALTERNATE DATASET NOT DEFINED.
_ 00028 IFO1521 AOK  CHECKING CFRM DATASET.
_ 00029 IFO1534 AOK   PRIMARY DATASET=COUPLE.PCFRM.CDS; VOL=VPSMSB.
_ 00030 IFO1534 AOK   ALTERNATE DATASET=COUPLE.ACFRM.CDS; VOL=VPSMSD.
_ 00031 IFO1521 AOK  CHECKING LOGR DATASET.
_ 00032 IFO1534 AOK   PRIMARY DATASET=COUPLE.PLOGR.CDS; VOL=VPSMSB.
_ 00033 IFO1534 AOK   ALTERNATE DATASET=COUPLE.ALOGR.CDS; VOL=VPSMSD.

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

Each Image Inspection can be broken down into a number of discrete elements. Each available element may be selected from this panel by placing 'S' on the Entry Point that precedes an element's name or cursor under it and pressing enter. Take note of the Date and Time of the Inspection and the IPL Inspection Parameters used.

Inspection Elements Selection Panel

```
                IFO 18.0 - Image Inspection Element Selection

        Sysplex: PROD0001 Image: IMAG0001  -  Date: 2021/05/14 Time: 16:55

    -- .. Findings ---------IPL Inspection Parameters--------- .. View Log --

             IPL Unit Address 1000            Add'L COMMANDxx  --
             LOAD PARM        0CE3W1.1        Hardware Name    VM-TOKEN
             SYSCAT Suffix    --              LPAR Name        --NONE--
             IEASYS00 Suffix  --              VM UserId         ETPGZE5

    -- .. AuditLog -------OS and Sub-System Inspections------- .. Diff:Yes --

       .. ZOS EWN 1117 z/OS Configuration   .. JES Off  612 JES2/3 Procedures
       .. HCK ---  237 IBM HealthChecker    .. VTM Off    4 VTAM Members
       .. TCP Off  366 TCP/IP Components    .. CIC Off   88 CICS SIT Files

    -- .. IEASYSxx ---Supplemental Inspections and Analysis--- .. PPTables --

       .. LOD Off    4 Load Module Analysis .. MBR Off    4 Member Analysis
       .. CSD Off    4 CICS CSDS Dataset    .. APF 124  159 APF Authorized DS
       .. DSN 190 1012 System IPL Datasets  .. VOL 070  632 System IPL Volumes
Option ===>
```

'Findings' should likely be your first selection when reviewing Inspection Results. This function provides a summary of all Inspection Messages of interest, as they are found in a 'Filtered-State' within the report.

Inspection Findings – Image Inspection Message Summary (partial)

```
                IFO 18.0 - Image Inspection Message Summary  Row 1 to 34 of 95
 --NSIMBLX 0913--                                          -Messages Summary-
-------------------- Overall Image Inspection Findings - 95 -------------------
Row Selection: Show_Image_Inspection_Detail
- Rec --Inspection Result-- - ------------Inspection Message Text--------------
_ ___ ___ _____ _____ ___ _ ____________________________________________________
S Num Typ -Rec- --Key-- Rsl F --------------------Filtered---------------------
_ 001 ZOS 00039 IFO0795 ERR - SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
_ 002 ZOS 00040 IFO0796 ERR - SECONDARY ALLOCATION NOT ALLOWED.
_ 003 ZOS 00232 IFO0725 NOT - OBSOLETE PARAMETER APG IGNORED.
_ 004 ZOS 00236 IFO0651 NOT - CMB= IGNORED/REAL IPL OF Z990/NEWER CPC.
_ 005 ZOS 00276 IFO0964 WAR - SMS - MULTIPLE PARAMETERS NOT ALLOWED.
_ 006 ZOS 00277 IFO0909 ERR - ERROR IN ABOVE STATEMENT AT OR NEAR COLUMN 1.
```

The '<' and '>' indicators are used to denote whether inspection message severity has been 'promoted' or 'demoted' by message filters found in the NSEMSG00 Configuration Member.

Selecting a message with the 'S' Row Command will display the Image Inspection Findings Worksheet. This Worksheet contains the 'Full Inspection' of the selected Image. The first line displayed in the worksheet is the point in the Inspection Report where the selected

message appears. From this point you may scroll up/down as needed to display its content. This will help you to gain a full understanding of actions that may have preceded or followed the selected message. Panel-Specific Help is available by pressing PFK1.

Inspection Findings – Image Inspection Findings (partial)

```
               IFO 18.0 - Sysplex Inspection Findings  Row 40 to 72 of 11,164
 --NSIMBLX 0913--                                          --Sysplex Detail--
------------- Sysplex:PROD0001 - 11164 Sysplex Inspection Records -------------
Row Selection: Full_Domain_Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------

_ _____ _______ ___ _____________________________________________________________
S -Rec- --Key-- Fnd -----------------------UnFiltered-------------------------
_ 00040 IFO0796 ERR    SECONDARY ALLOCATION NOT ALLOWED.
_ 00041 IFO0938 AOK ALLOCATING NUCLEUS DATASETS.
_ 00042 IFO0138 AOK  ALLOCATING SYS1.NUCLEUS; VOL=VIMVSB.
_ 00043 IFO0151 AOK     ALLOCATED TO SYS00004.
_ 00044             |
_ 00045 IFO0929 AOK INSPECTING IPL TEXT.
_ 00046 IFO0921 AOK  VIMVSB IPL TEXT LEVEL IS IEAIPL0005/13/11UA60387.
_ 00047             |
_ 00048 IFO0935 AOK SEARCHING FOR LOADW1 MEMBER.
_ 00049 IFO0906 AOK  SYS1.IPLPARM WAS FOUND ON VOLUME VPMVSB.
_ 00050 IFO0998 AOK  SYS1.IPLPARM FOUND ON VOLUME VPMVSB.
_ 00051 IFO0757 AOK   1 DASD EXTENTS.
```

The Sysplex-Image Findings Timeline also supports the display of Image Configuration Differences that were detected during Background Processing. Note: in the Timeline Worksheet, under the heading 'CNG' – 'Nop' means no changes were found, 'Yes' means change(s) were found, 'Unk' means the change detection process encountered a problem.

If a Change is noted – 'Yes' – cursor under or enter the 'C' Row Command and press enter to select. If the Packages/Baselines are still available, the Compare Confirmation Panel is displayed. If either or both are not available, a Message(s) is displayed to that effect.

Examine the Old and New IPL Parameters to determine if the configurations of the entities about to be compared make logical sense based on user-specific knowledge. If they do, press enter to continue.

Compare Confirmation

```
                IFO 18.0 - Compare Confirmation

  Selected Package DSN: IFO.TEST.PACKAGE.IMAG0001
                   VOL:

 Now confirm the IPL Parms of your selections. If the old and New
 are different systems this compare function may not detect change.

  ----- Old IPL Parameters -----   ----- New IPL Parameters -----

  DATE:                 04/23/17    DATE:                 05/14/17
  IMAGE NAME:           IMAG0001    IMAGE NAME:           IMAG0001
  IPL ADDRESS:          1000        IPL ADDRESS:          1000
  LOAD PARM:            0CE3W1.1    LOAD PARM:            0CE3W1.1
  SYSCATxx SUFFIX:                  SYSCATxx SUFFIX:
  IEASYSxx SUFFIX:                  IEASYSxx SUFFIX:
  HWNAME:               VM-TOKEN    HWNAME:               VM-TOKEN
  LPARNAME:                         LPARNAME:
  VMUSERID:             ETPGZE5     VMUSERID:             ETPGZE5

 Now Press Enter to begin comparing the Old and New IPL Parameters.
```

Once the Package/Baseline comparison is completed, the Image Comparison Summary is displayed. Note that items that have changed are flagged in the STATUS column as '* DIFFERENT*'**.** Those configuration components that are not in one configuration or the other are flagged as '* MISSING *'. Selecting an Element/Member with an 'S' will show detail.

Image Comparison Summary (partial)

```
                IFO 18.0 - Image Comparison Summary         Row 1 to 34 of 135

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

 CMD  MEMBER         STATUS      VOLUME   DSNAME
 ..   LOADW1          SAME       VPMVSB   SYS1.IPLPARM
 ..   NUCLSTSV        SAME       VPMVSB   SYS1.IPLPARM
 ..   IEASYMW1        SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYMSV        SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASYMVN        SAME       VPMVSD   VENDOR.PARMLIB
 ..   IEASYS00        SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYSLV        SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYSSV        SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASYSVN        SAME       VPMVSD   VENDOR.PARMLIB
 ..   IEASVCIA        SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASVC67        SAME       VTMVSG   SVTSC.PARMLIB
 ..   PROG00          SAME       VTLVL0   LVL0.PARMLIB
 ..   PROGVN     * DIFFERENT *   VPMVSD   VENDOR.PARMLIB
 ..   PROG67          SAME       VTMVSG   SVTSC.PARMLIB
 ..   PROG52          SAME       VTLVL0   LVL0.PARMLIB
```

6.5 Report Operations - BatIRpts - BatchJob Inspection Findings

BatIRpts – BatchJob Inspection Findings is a new option of 'ProdView'. This function set allows users of IFOBAT, IFOBATA and IFOBATS to define Report Datasets for each Batch Process using a unique Image/LPAR name. The content of these Report Datasets may be accessed using a set of interactive reporting tools. Panel-Specific Help is available by pressing PFK1.

The Batch Access Setup & Selection Panel

```
                IFO 18.0 - Batch Access Setup & Selection    Row 1 to 1 of 1
 --NSIMBLX 0913--                                          --Batch Targets--
--------------- Background Processing - 1 Batch Setup is Defined --------------
Row Selection: Show_Report_Selection Add_Targeted_Dataset Remove_Target_Dataset
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Row ---Defined Targeted Datasets--- -System- ----Last Reporting Intervals----
_ ___ ____________________________ ________ ___ __________ _____ ____________
S Num -------Dataset Qualifier------- -Images- Fnd yyyy/mm/dd hh:mm -Your News-
_ 001 ADD_IFO_BATCH_DS_QUALIFERS_____ -------- --- ----/--/-- --:-- Enter_BatDS
****************************** Bottom of data ********************************
```

See 'Appendix – Sample Batch Procedures' for revised procedure set up requirements for IFOBAT, IFOBATA and IFOBATS.

6.5.1 Defining the Batch Report Qualifier

This Panel allows you to Add and Remove Batch Dataset Qualifiers. Note that while the fully qualified Report Dataset name is used to store the report – which includes the Batch Process name and the LPAR/Image name – only the report qualifier up to the LPAR/Image name is required when adding a new qualifier. Any and all LPAR/Images will be added automatically with their names appearing in the 'Images' Column. A Global Findings Indicator – Err, War, Not, Aok – and the date and time of the last report are shown.

6.5.2 Enhanced Batch Reporting

The Domain Summary shows the results of the Image Inspection. Inspected Members and Critical Configuration Components are displayed as Domains. By default, Inspection results are ordered by domain 'As they occur' in the IPL Process. However, results can be grouped by Inspection Result by placing the cursor under a value - ERR, WAR, NOT, AOK - in the 'Rsl' field, and pressing enter. Cursor under the 'Rsl' value and press enter to return to the prior sort order. Panel-Specific Help is available by pressing PFK1.

Image Findings – Domain Summary

```
          IFO 18.0 - Image Findings - Domain Summary   Row 2 to 15 of 45
--NSIMBLX 0621--                                          ---Inspections---
---------- Sysplex:ADCDPL Image:ADCD113 Date:2021/06/23 Time:09:06:37 ---------
Row Selection: Show_Domain_Inspection_Detail TCE_Control_Journal_Member_History
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Rec -Inspections- ---Last Update--- -------------Source ParmLib--------------

_ ___ ___ ______ __ ________ ________ ____________________________________ ______
S Num Rsl Domain Sx --User-- --Date-- -----------Dataset Names---------- Volume
_ 002 AOK NUCLST 00 IBMUSER  17/05/11 SYS1.IPLPARM                        ZDSYS1
_ 003 AOK IEANUC 01 -------- --:--:-- SYS1.NUCLEUS                        ZDRES1
_ 004 AOK IEANUC 21 -------- --:--:-- SYS1.NUCLEUS                        ZDRES1
_ 005 AOK SCATDS -- -------- --:--:-- -----non_specific-----              ------
_ 006 AOK IODFDS -- -------- --:--:-- -----non_specific-----              ------
_ 007 AOK PARMDS -- -------- --:--:-- -----non_specific-----              ------
_ 008 WAR IEASYS XA ADCDMST  17/02/25 USER.PARMLIB                        ZDSYS1
_ 009 AOK IEASVC 00 IBMUSER  16/12/04 ADCD.Z113.PARMLIB                   ZDRES1
_ 010 WAR PROG   01 ADCDMST  16/05/17 USER.PARMLIB                        ZDSYS1
_ 011 AOK IEAFIX 00 IBMUSER  15/12/04 ADCD.Z113.PARMLIB                   ZDRES1
```

Options available allow you to show a segment of the full Inspection Report that pertains to a specific Domain, or to present the History of Member Changes captured and recorded by The Control Editor, if licensed and available.

The Selected Domain - Detail Worksheet

```
          IFO 18.0 - Selected Image Domain - IEASYSXA  Row 1 to 14 of 66
--NSIMBLX 0621--                                        --Domain Detail--
--------------- Sysplex:ADCDPL Image:ADCD113 - 66 Domain Records --------------
Row Selection: Full_Domain_Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------

_ _____ _______ ___ ________________________________________________________
S -Rec- --Key-- Fnd ------------------------UnFiltered-------------------------
_ 00001 IFO0935 AOK SEARCHING FOR IEASYSXA MEMBER.
_ 00002 IFO0940 AOK  IEASYSXA FOUND IN PARMLIB(0) VOL=ZDSYS1;DSN=USER.PARMLIB.
_ 00003 IFO0675 AOK  IEASYSXA LAST CHANGED DATE=2021/02/25 TIME=06:48:16 USER=A
_ 00004 IFO0923 AOK  IEASYSXA MEMBER CONTENTS ARE AS FOLLOWS:
_ 00005             |----+----1----+----2----+----3---TOP OF MEMBER---5----+---
_ 00006             |CLOCK=X1,
_ 00007             |CMD=XA,
_ 00008             |CON=(XA,NOJES3),
_ 00009             |COUPLE=X1,
_ 00010             |GRS=STAR
_ 00011             |----+----1----+----2----+----3-BOTTOM OF MEMBER--5----+---
_ 00012             |
_ 00013             |
_ 00014 IFO0717 AOK CHECKING DATASETS DEFINED IN IEASYSXX.
_ 00015             |
_ 00016 IFO0718 AOK SEARCHING FOR LOGREC DATASET(S).
_ 00017 IFO0998 AOK  SYS1.LOGREC FOUND ON VOLUME ZDSYS1.
_ 00018 IFO0757 AOK   1 DASD EXTENTS.
_ 00019 IFO0138 AOK  ALLOCATING SYS1.LOGREC; VOL=ZDSYS1.
_ 00020 IFO0151 AOK     ALLOCATED TO SYS00009.
_ 00021             |
_ 00022 IFO0718 AOK SEARCHING FOR PAGE DATASET(S).
_ 00023 IFO0443 WAR  PAGE: DUPLICATE DATASETS DETECTED.
_ 00024 IFO0998 AOK  SYS1.PLPA.PAGE.DATA FOUND ON VOLUME ZDPAGA.
_ 00025 IFO0757 AOK   1 DASD EXTENTS.
_ 00026 IFO0138 AOK  ALLOCATING SYS1.PLPA.PAGE.DATA; VOL=ZDPAGA.
```

This Worksheet shows Member Records and Inspection Messages related to the Domain Inspection. The Full Inspection Report is displayed when the 'F' Row Selection Command is used. Panel-Specific Help is available by pressing PFK1.

6.5.3 Access The Control Editor

When The Control Editor is active, the History of a Member is displayed by placing a 'T' on the Row Selection Entry Point and pressing enter.

TCE Journal – Member History – 'Full History' Worksheet

```
              IFO 18.0 - TCE Journal - Member History      Row 1 to 14 of 19
--NSIMBLX 0621--                                          --Dataset/Member--
----------------- IFO.IFOP - Controlled Member Events - PROG01 ----------------
Row Selection: Show_TCE_Journal_History Browse_the_TCE_Journal_Record
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -------Detected Events-------- -----------Controlled Dataset------------

_ _____ ________ _____ _____ _______ _______ ____________________________
S Lines yy/mm/dd hh:mm Types --User-- -Member- -------Controlled Dataset-------
_ 00001 17/06/25 07:00 DTCNG PHARL2   PROG01   USER.PARMLIB
_ 00002 17/05/14 13:05 DELET -NoUser- PROG01   PHARL2.PARMLIBC
_ 00003 17/05/17 07:00 DTCNG ADCDMST  PROG01   USER.PARMLIB
_ 00004 17/05/22 07:00 DTCNG GBAGS1   PROG01   GBAGS1.PARMLIB5
_ 00005 17/05/10 04:00 DTCNG GBAGS1   PROG01   GBAGS1.PARMLIB5
_ 00006 17/05/01 12:48 ATMPT PHARL3   PROG01   Attempted_Update_Failed
_ 00007 17/05/01 12:48 CEDIT PHARL2   PROG01   USER.PARMLIB
_ 00008 17/05/01 12:48 CEDIT PHARL3   PROG01   USER.PARMLIB
_ 00009 17/05/01 12:48 DEBUG PHARL3   PROG01   Email_(______)_Trace_(12:48:52)
_ 00010 17/05/01 12:48 ENOTE PHARL3   PROG01   Event_(______)_Notification
_ 00011 17/05/06 10:38 ADDED -NoUser- PROG01   PHARL2.PARMLIB
_ 00012 17/05/06 10:38 DELET PHARL3   PROG01   PHARL2.PARMLIBC
_ 00013 17/05/06 14:12 ADDED -NoUser- PROG01   PHARL2.PARMLIBC
_ 00014 17/05/06 14:16 DELET -NoUser- PROG01   PHARL2.PARMLIBC
```

This Worksheet shows the 'Full History' of all actions related to a selected member. To delimit the listing to a specific Controlled Dataset, cursor under the Dataset Name and press enter.

TCE Journal – Member History – 'Dataset History' Worksheet

```
              IFO 18.0 - TCE Journal - Member History       Row 1 to 4 of 4
--NSIMBLX 0621--                                          --Dataset/Member--
----------------- IFO.IFOP - Controlled Member Events - PROG01 ----------------
Row Selection: Show_TCE_Journal_History Browse_the_TCE_Journal_Record
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Line -------Detected Events-------- -----------Controlled Dataset------------
                                      USER.PARMLIB
_ _____ ________ _____ _____ _______ _______ ____________________________
S Lines yy/mm/dd hh:mm Types --User-- -Member- -------Controlled Dataset-------
_ 00001 17/06/25 07:00 DTCNG PHARL2   PROG01   USER.PARMLIB
_ 00003 17/05/17 07:00 DTCNG ADCDMST  PROG01   USER.PARMLIB
_ 00007 17/05/01 12:48 CEDIT PHARL2   PROG01   USER.PARMLIB
_ 00008 17/05/01 12:48 CEDIT PHARL3   PROG01   USER.PARMLIB
****************************** Bottom of data ******************************
```

This will redisplay the list showing only those events associated with the selected Dataset. Panel-Specific Help is available by pressing PFK1.

6.6 Packages - Image Baseline Configurations

During a Background Inspection, if a change from a prior stored Package/Baseline configuration of named Images in the Syplex is detected, a new Package/Baseline will be stored. An exception to this default processing behavior is possible if the background is configured to ignore the creation of a new Package/Baseline when the Image Inspection detects a configuration error. The Package/Baseline Operations Panel supports options that allow you to access, display, and compare available Packages/Baselines.

The Baseline Package Operations Panel

```
                IFO 18.0 - Baseline Package Operations

   P   Packages  .. - List/Browse Available Packages        Userid    - PHARL2
                                                           Time      - 15:13
   I   ICompare  .. - Compare one Image to a Baseline      Sysplex   - SVSCPLEX
                                                           System    - S0W1
   O   OneToOne  .. - Compare One Image to Any Image       ApplId    - TEST
                                                            Image Focus 18.0
   D   DshBoard  .. - Local Sysplex Image Change Summary    Patch Level P0

   A   AllPlexs  .. - Images Changes - Local and Remote



   X   Exit         - Return to the TCE Primary Menu

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

How Packages are Stored

1. Packages are generated only if an Image is eligible for Background Task Inspection (see the section on Background Tasks).

2. Packages are stored in the Image PDS only if the inspection did not have any errors. Images with Warnings may be stored. This is optional.

3. Packages are stored in the Image PDS only if the package is different from the last stored package. This prevents duplicate packages in the PDS.

4. Packages are stored using a member name of Fyymmdd, where yymmdd is the date in year/month/day format. This means if multiple packages for an Image are stored on the same day, only the last one will exist.

5. A TSO SEND message is sent to the USERID that was set up on the Image Selection Panel (see the section on Background Tasks) when a new package is stored. This indicates that a change was made to one or more system datasets.

If the Index PDS or an Image PDS runs out of space, an attempt to compress the dataset will be made by the Background Task. The Background Task uses the ISPF dataset compress interface so that the proper ENQ/DEQ mechanisms are used.

6.6.1 Classic View of Package Operations

Selecting the 'Packages', 'ICompare' and 'OneToOne' options, will show the Classic View of the Packages/Baselines:

Packages – Stored Package – Browse Panel

```
                IFO 18.0 - Stored Package - Browse          Row 1 to 11 of 11

  Image Package Index Dataset: IFO.TEST.PACKAGE.INDEX
                       VOLSER: VPWRKI

  Using the Selection List that follows, select a System Image by Name.
  Then from the displayed Panel, by Date to Browse Image Configuration.

Line Command:  S - Select a System Image

CMD   IMAGE   VOLUME    DATE      DSNAME
..    IMAGWEBD VPWRKG             IFO.TEST.PACKAGE.IMAGWEBD
..    IMAGWEBE VPWRKG             IFO.TEST.PACKAGE.IMAGWEBE
..    IMAG0001 VPWRKG 2021/02/11  IFO.TEST.PACKAGE.IMAG0001
..    IMAG0002 VPWRKG             IFO.TEST.PACKAGE.IMAG0002
..    IMAG0003 VPWRKG             IFO.TEST.PACKAGE.IMAG0003
..    IMAG0005 VPWRKG             IFO.TEST.PACKAGE.IMAG0005
..    IMAG0007 VPWRKG             IFO.TEST.PACKAGE.IMAG0007
..    IMAG001A VPWRKG             IFO.TEST.PACKAGE.IMAG001A
..    PROD0011 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0011
..    PROD0012 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0012
..    STAGED11 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.STAGED11
****************************** Bottom of data ********************************
```

ICompare - Select “NEW” and “OLD” Package – Same Image for Comparison

```
                IFO 18.0 - Select "NEW" Package              Row 1 to 5 of 5

  Selected Package DSN: IFO.TEST.PACKAGE.IMAG0001
                   VOL: VPWRKG

 The Package you select from this List will be labeled the New Package.
 The one selected from the next panel will be labeled the Old Package.

Line Commands:  S - Select a Package Date

CMD    Date     Result
..    07/26/17    E
..    07/26/17    E
..    01/15/17    E
..    04/23/17    E
..    05/14/17    E
******************************** Bottom of data ********************************
```

OneToOne - Stored Package – Step One - Cross Compare

```
               IFO 18.0 - Stored Package - Cross Compare    Row 1 to 11 of 11

  Image Package Indes Dataset: IFO.TEST.PACKAGE.INDEX
                       VOLSER: VPWRKI

 From the Selection Listing shown below select TWO Images for Comparison.
 The one on top will be labeled "New" Image the one below as "OLD" Image.

Line Command:  S - Select a System Image

CMD   SELECT IMAGE   VOLUME    DATE     DSNAME
..         IMAGWEBD VPWRKG             IFO.TEST.PACKAGE.IMAGWEBD
..         IMAGWEBE VPWRKG             IFO.TEST.PACKAGE.IMAGWEBE
..         IMAG0001 VPWRKG 2021/02/11  IFO.TEST.PACKAGE.IMAG0001
..         IMAG0002 VPWRKG             IFO.TEST.PACKAGE.IMAG0002
..         IMAG0003 VPWRKG             IFO.TEST.PACKAGE.IMAG0003
..         IMAG0005 VPWRKG             IFO.TEST.PACKAGE.IMAG0005
..         IMAG0007 VPWRKG             IFO.TEST.PACKAGE.IMAG0007
..         IMAG001A VPWRKG             IFO.TEST.PACKAGE.IMAG001A
..         PROD0011 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0011
..         PROD0012 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0012
..         STAGED11 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.STAGED11
****************************** Bottom of data ******************************
```

OneToOne - Stored Package – Step Two – Cross Compare - Select TWO Image Packages

```
                IFO 18.0 - Select TWO Image Packages

 Select ONE Package Date from each Selected Image and press ENTER

        Old =  IMAG001A                      New =  IMAG0001
        CMD    Date   Result                 CMD    Date   Result
        ..     05/14/17 E                   ..     07/26/17 E
                                            ..     07/26/17 E
                                            ..     01/15/17 E
                                            ..     04/23/17 E
                                            ..     05/14/17 E
```

For the Package/Baseline Display and Compare Panels shown above, use PFK1 for Panel specific Help.

6.6.2 Enhanced Package Processing Options

Selecting either the 'DshBoard' or 'AllPlexs' options provides access to unique Package/Baseline content display options and reports. Ultimately, both the 'DshBoard' and 'AllPlexs' options provide the same displays and reports. They differ only in that the 'DshBoard' option is specific to the running Cluster and its Image Definition while the 'AllPlexs' option allows you to define 'Remote Cluster' affording access to all – Local and Remote – Image Configuration Package/Baselines and related Changes.

Selecting the 'DshBoard' will display the Image Configuration Change Summary. This Summary will only show Background Intervals when an Image Configuration Change was detected. An exception to this default processing behavior is possible if the background is configured to ignore the creation of a new Package/Baseline when the Image Inspection detects a configuration error. Note that the column headed "-Date-Time-Chngs-" reflects the Data and Time when a change was last detected for the associated Image. The Timeline Reports and Interactive Worksheets detail a more "Global View" showing ALL Background Events regardless of whether or not an Image Configuration Change was detected during a Background Interval.

Note that because of the 'High Level' of summarization presented, there may be some delay in panel display. Following initial usage, and assuming frequent usage, there should be no noticeable delay. Panel-Specific Help is available by pressing PFK1.

DshBoard - Image Configuration Change Summary Panel

```
               IFO 18.0 - Image Configuration Change Summary  Row 1 to 6 of 6
 --NSIMBLX 0913--                                                ---IFOPackages---
---------------- Environment is IFO.TEST - 3 Background Images -----------------
Row Selections: Shows_Package_Timeline_Report Display_Package_Creation_Timeline
- Row -----Last Inspection Findings------ Your ---------Period to Date---------
S Num -Target- -Images- -Date-Time-Chngs- News Days Week Mths Qtrs Years Totals
_ 001 PROD0001 IMAG0001 17/05/14-16:55-Y-    0    0    1    1    1     1      3
_ 002 PROD0001 IMAG0002 NE                -16:    0    0    0    0     0      0
_ 003 PROD0001 IMAG001A NE                -16:    0    0    0    0     0      0
_ 004 -------- -------- ----------------- ---- ---- ---- ---- ---- ----- ------
_ 005                   Available_Package    0    0    1    1    1     1      3
_ 006 ======== ======== ================= ==== ==== ==== ==== ==== ===== ======
****************************** Bottom of data ********************************
```

The Image Change Timeline Report is an overview of all Background Events for a selected Image showing both Sysplex and Image Findings. Image Findings include the Member Names of the Old and New Package/Baselines and an indicator – Some or None – to denote configuration changes. The 'Fnd' column matches Configuration Changes and Image Inspection Findings at the same Background Interval.

```
/*****************************************************************************/
/*                                                                           */
/*       Background Inspection Findings - Image Change Timeline Detail       */
/*                  Sysplex - PROD0001 - Image - IMAG0001                    */
/*               Date:2021/05/15 - Time:15:20:30 - User:PHARL2                */
/*                                                                           */
/*****************************************************************************/

  Row --Sysplex Findings--- -------Intervals------- ------Image Findings------
  Num ProdName Fnd --Name-- yyyy/mm/dd hh:mm:ss Eml -OldPak- -NewPak- Diff Fnd
  --- -------- --- -------- ---------- -------- --- -------- -------- ---- ---
  001 PROD0001 Err S0W1     2021/05/14 16:55:43 --- F140423C F150514C Some Err
  002 PROD0001 Not S0W1     2021/06/01 09:19:16 --- -------- -------- -NA- Err
  003 PROD0001 Not S0W1     2021/05/31 09:17:01 --- -------- -------- -NA- Err
  004 PROD0001 Not S0W1     2021/05/30 09:14:44 --- -------- -------- -NA- Err
  005 PROD0001 Not S0W1     2021/05/03 12:02:12 --- -------- -------- -NA- Err
  006 PROD0001 Not S0W1     2021/05/02 12:00:01 --- -------- -------- -NA- Err
  007 PROD0001 Not S0W1     2021/05/01 11:57:49 --- -------- -------- -NA- Err
  008 PROD0001 Not S0W1     2021/04/30 11:55:32 --- -------- -------- -NA- Err
  009 PROD0001 Not S0W1     2021/04/29 16:37:19 --- F140423C -------- None Err
  010 PROD0001 Not S0W1     2021/04/26 10:34:07 --- F140423C -------- None Err
  011 PROD0001 Not S0W1     2021/04/25 10:32:41 --- F140423C -------- None Err
  012 PROD0001 Not S0W1     2021/04/24 10:31:13 --- F140423C -------- None Err
  013 PROD0001 Not S0W1     2021/04/23 18:50:06 --- F140115C F140423C Some Err
  014 PROD0001 Not S0W1     2021/01/15 16:42:40 --- F130726F F140115C Some Err

/*****************************************************************************/
/*                                                                           */
/*                    IFO.TEST.$TCETEMP.REPORTS($PAKDTL)                     */
/*                                                                           */
/*****************************************************************************/
      NewEra Software, Inc.
          Our Job? Help you avoid problems and improve z/OS integrity.
****************************** Bottom of Data ********************************
```

The Package Creation Timeline is a worksheet-based, interactive version of the Image Change Timeline Report.

The Sysplex-Image Findings Timeline

```
                IFO 18.0 - Configuration Change Timeline     Row 1 to 14 of 14
 --NSIMBLX 0913--                                            -Events Timeline-
------------ Sysplex:PROD0001 Image:IMAG0001 - 14 Background Events -----------
Row Selections: Sysplex_Inspection Image_Configuration_Changes Image_Inspection
- Rows --Sysplex Findings--- -------Intervals------- ------Image Findings------

_ ____ ________ ___ ________ _________ ________ ___ ________ ________ ____ ___
S Numb ProdName Fnd --Name-- yyyy/mm/dd hh:mm:ss Eml -OldPak- -NewPak- Diff Fnd
_ 0001 PROD0001 Err S0W1     2021/05/14 16:55:43 --- F140423C F150514C Some Err
_ 0002 PROD0001 Not S0W1     2021/06/01 09:19:16 --- -------- -------- -NA- Err
_ 0003 PROD0001 Not S0W1     2021/05/31 09:17:01 --- -------- -------- -NA- Err
_ 0004 PROD0001 Not S0W1     2021/05/30 09:14:44 --- -------- -------- -NA- Err
_ 0005 PROD0001 Not S0W1     2021/05/03 12:02:12 --- -------- -------- -NA- Err
_ 0006 PROD0001 Not S0W1     2021/05/02 12:00:01 --- -------- -------- -NA- Err
_ 0007 PROD0001 Not S0W1     2021/05/01 11:57:49 --- -------- -------- -NA- Err
_ 0008 PROD0001 Not S0W1     2021/04/30 11:55:32 --- -------- -------- -NA- Err
_ 0009 PROD0001 Not S0W1     2021/04/29 16:37:19 --- F140423C -------- None Err
_ 0010 PROD0001 Not S0W1     2021/04/26 10:34:07 --- F140423C -------- None Err
_ 0011 PROD0001 Not S0W1     2021/04/25 10:32:41 --- F140423C -------- None Err
_ 0012 PROD0001 Not S0W1     2021/04/24 10:31:13 --- F140423C -------- None Err
_ 0013 PROD0001 Not S0W1     2021/04/23 18:50:06 --- F140115C F140423C Some Err
_ 0014 PROD0001 Not S0W1     2021/01/15 16:42:40 --- F130726F F140115C Some Err
****************************** Bottom of data ********************************
```

Take note that this display, like the Timeline report, is a Historical Record of Background Events. Depending on your Cluster and Package/Baseline Retention policy, it is possible that older Clusters and Configuration Baselines may have been deleted. In such cases, a Pop-Up message is displayed indicating that the Cluster and/or Package/Baseline member is no longer available.

This Worksheet supports three Row Commands, each of which displays additional finding details – Sysplex Inspection, Image Configuration Changes, Image Inspections. The fields in White are 'Point-and-Shoot' sensitive. Panel-Specific Help is available by pressing PFK1.

Sysplex Inspection: The Sysplex Inspection is extracted directly from the selected Report Cluster and is displayed in Worksheet format. The results of the Inspection are shown in the first Row of the Worksheet. To show all Inspection Records matching the overall Finding, cursor under the 'Fnd' Field shown in that row and press enter. Cursor under the 'Fnd' Field and press enter to re-expand the worksheet. Panel-Specific Help is available by pressing PFK1.

Sysplex Inspection Worksheet (partial)

```
               IFO 18.0 - Sysplex Inspection Findings      Row 1 to 33 of 110
 --NSIMBLX 0913--                                         --Sysplex Detail--
-------------- Sysplex:PROD0001 - 110 Sysplex Inspection Records --------------
Row Selection: Full_Sysplex_Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------
_ _____ _______ ___ _____________________________________________________________
S -Rec- --Key-- Fnd ------------------------UnFiltered-------------------------
_ 00001 IFO0999 ERR REPORT FOR SYSPLEX PROD0001 ENDED WITH ERRORS.
_ 00002 IFO1003 AOK SYSPLEX INSPECTION REPORT.
_ 00003 IFO1114 ERR INSPECTION ENDED WITH ERROR.
_ 00004 IFO1000 AOK BACKGROUND EXECUTION ON 05/14/2021 AT 16:55:44.
_ 00005 IFO0000 AOK  REPORT DATASET:  'IFO.TESTBG.REPORT.D2021134.T1653151'.
_ 00006 IFO1008 AOK  PACKAGE INDEX DATASET: 'IFO.TEST.PACKAGE.INDEX'.
_ 00007 IFO1539 AOK MULTISYSTEM TYPE SELECTED DUE TO MULTIPLE IMAGES DEFINED.
_ 00008 IFO1500 AOK PROCESSING IMAGE NUMBER 1.
_ 00009 IFO1501 AOK  OPSYS INSPECTION COMPLETED WITH ERRORS.
_ 00010 IFO1502 AOK  SYSPLEX=SVSCPLEX; SYSNAME=S0W1; SYSCLONE=W1.
_ 00011 IFO1503 AOK  IPLUNIT=1000; IODFUNIT=0CE3; LOADPARM=0CE3W1.1.
```

Image Configuration Changes: The Package Creation Timeline displays a listing of all available Image Inspection Background Events and related Package/Baseline Activity. Take note: when a change is detected, you will find both an 'Old' Package/Baseline Member and a 'New' Package/Baseline Member accompanied by the notation 'Some' in the 'Diff' column. Cursor under a Package/Baseline Member, press enter to display its contents.

If a Change is noted, cursor under the 'Time Stamp' or enter the 'C' Row Command and press enter. If the Package/Baseline Members are still available, the Compare Confirmation Panel is displayed. If either or both Members are not available, a Message(s) is displayed to that effect.

Examine the Old and New IPL Parameters to determine if the configurations of the entities about to be compared make logical sense based on user-specific knowledge. If they do, press enter to continue.

Compare Confirmation

```
               IFO 18.0 - Compare Confirmation

  Selected Package DSN: IFO.TEST.PACKAGE.IMAG0001
                   VOL:

 Now confirm the IPL Parms of your selections. If the old and New
 are different systems this compare function may not detect change.

  ----- Old IPL Parameters -----   ----- New IPL Parameters -----

  DATE:                 04/23/19    DATE:                 05/14/21
  IMAGE NAME:           IMAG0001    IMAGE NAME:           IMAG0001
  IPL ADDRESS:          1000        IPL ADDRESS:          1000
  LOAD PARM:            0CE3W1.1    LOAD PARM:            0CE3W1.1
  SYSCATxx SUFFIX:                  SYSCATxx SUFFIX:
  IEASYSxx SUFFIX:                  IEASYSxx SUFFIX:
  HWNAME:               VM-TOKEN    HWNAME:               VM-TOKEN
  LPARNAME:                         LPARNAME:
  VMUSERID:             ETPGZE5     VMUSERID:             ETPGZE5

 Now Press Enter to begin comparing the Old and New IPL Parameters.
```

Once the Package/Baseline comparison is completed, the Image Comparison Summary is displayed. Note, items that have changed are flagged in the Status Column as '*DIFFERENT *'**.** Those configuration components that are not in one configuration or the other will be flagged as '* MISSING *'. Selecting an Element/Member with an 'S' will show detail.

Image Comparison Summary (partial)

```
               IFO 18.0 - Image Comparison Summary         Row 1 to 34 of 135

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

 CMD  MEMBER          STATUS      VOLUME   DSNAME
 ..   LOADW1            SAME       VPMVSB   SYS1.IPLPARM
 ..   NUCLSTSV          SAME       VPMVSB   SYS1.IPLPARM
 ..   IEASYMW1          SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYMSV          SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASYMVN          SAME       VPMVSD   VENDOR.PARMLIB
 ..   IEASYS00          SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYSLV          SAME       VTLVL0   LVL0.PARMLIB
 ..   IEASYSSV          SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASYSVN          SAME       VPMVSD   VENDOR.PARMLIB
 ..   IEASVCIA          SAME       VTMVSG   SVTSC.PARMLIB
 ..   IEASVC67          SAME       VTMVSG   SVTSC.PARMLIB
 ..   PROG00            SAME       VTLVL0   LVL0.PARMLIB
 ..   PROGVN     * DIFFERENT *     VPMVSD   VENDOR.PARMLIB
 ..   PROG67            SAME       VTMVSG   SVTSC.PARMLIB
```

Image Inspection: The Package Creation Timeline also supports the display of Image Inspections. The Inspection of a selected Image is broken down into a number of discrete elements. An Inspection Element may be selected from this panel by placing 'S' on the Entry Point that precedes the element name or by cursoring under the name and pressing enter. Take note of the Date and Time of the Inspection and the IPL Inspection Parameters used.

Inspection Elements Selection Panel

```
                IFO 18.0 - Image Inspection Element Selection

      Sysplex: PROD0001 Image: IMAG0001  -  Date: 2021/05/01 Time: 07:02

  -- .. Findings ---------IPL Inspection Parameters--------- .. View Log --

          IPL Unit Address 0A80            Add'L COMMANDxx  --
          LOAD PARM        0A82XB..        Hardware Name    --NONE--
          SYSCAT Suffix    --              LPAR Name        --NONE--
          IEASYS00 Suffix  --              VM UserId        --NONE--

  -- .. AuditLog -------OS and Sub-System Inspections------- .. Diff:Nop --

     .. ZOS -WN 7623 z/OS Configuration   .. JES ---  980 JES2/3 Procedures
     .. HCK ---  105 IBM HealthChecker    .. VTM --- 1579 VTAM Members
     .. TCP ---   67 TCP/IP Components    .. CIC Off    4 CICS SIT Files

  -- .. IEASYSxx ---Supplemental Inspections and Analysis--- .. PPTables --

     .. LOD Off    4 Load Module Analysis .. MBR Off    4 Member Analysis
     .. CSD Off    4 CICS CSDS Dataset    .. APF 032   41 APF Authorized DS
     .. DSN 097  535 System IPL Datasets  .. VOL 013  119 System IPL Volumes

 Option ===>
```

'Findings' should likely be your first selection when reviewing Inspection Results. This function provides a summary of all Inspection Messages of interest, as they are found in a filtered state within the report.

Inspection Findings – Image Inspection Message Summary

```
             IFO 18.0 - Image Inspection Message Summary    Row 1 to 6 of 6
 --NSIMBLX 0621--                                          -Messages Summary-
 -------------------- Overall Image Inspection Findings - 6 --------------------
 Row Selection: Show_Image_Inspection_Detail
 - Rec --Inspection Result-- - ------------Inspection Message Text--------------
 _ ___ ________ _______ ___ _ _____________________________________________________
 S Num Typ -Rec- --Key-- Rsl F --------------------Filtered----------------------
 _ 001 ZOS 00171 IFO0651 AOK < CMB= IGNORED/REAL IPL OF Z990/NEWER CPC.
 _ 002 ZOS 00226 IFO0651 AOK < CMB= IGNORED/REAL IPL OF Z990/NEWER CPC.
 _ 003 ZOS 00307 IFO0443 WAR - PAGE: DUPLICATE DATASETS DETECTED.
 _ 004 ZOS 00487 IFO0769 WAR > IFO.DEVL.LOAD/VOL LVWRKA NOT FOUND.
 _ 005 ZOS 00488 IFO2100 NOT - APF DATASETS DOES NOT EXIST.
 _ 006 ZOS 02997 IFO2102 NOT - LNKAUTH=LNKLST WAS SPECIFIED.
 ****************************** Bottom of data ********************************
```

The '<' and '>' indicators are used to denote whether an inspection message severity has been 'promoted' or 'demoted' by message filters found in the NSEMSG00 Configuration Member.

Selecting a message with the 'S' Row Command will display the Image Inspection Findings Worksheet. This Worksheet contains the 'Full Inspection' of the selected Image. The first line displayed in the worksheet is the point in the Inspection Report where the selected message appears. From this point you may scroll up/down as needed to display its content. This will help you to gain a full understanding of actions that may have preceded or followed the selected message. Panel-Specific Help is available by pressing PFK1.

Inspection Findings – Image Inspection Findings

```
          IFO 18.0 - Image Inspection Findings Row 307 to 320 of 7,614
--NSIMBLX 0621--                                          --Sysplex Detail--
-------------- Sysplex:PROD0001 - 7614 Sysplex Inspection Records -------------
Row Selection: Full_Domain_Inspection
--- To Sort select a Sub-Head, To Query enter above Sub-Head, PFK1 for Help ---
- Count --Results-- ------------------Inspection Message Text------------------
_ _____ _______ ___ ____________________________________________________________
S -Rec- --Key-- Fnd ------------------------UnFiltered-------------------------
_ 00307 IFO0443 WAR  PAGE: DUPLICATE DATASETS DETECTED.
_ 00308 IFO0998 AOK  SYS1.PLPA1.PAGE.DATA FOUND ON VOLUME ZDPAGM.
_ 00309 IFO0757 AOK   1 DASD EXTENTS.
_ 00310 IFO0138 AOK  ALLOCATING SYS1.PLPA1.PAGE.DATA; VOL=ZDPAGM.
_ 00311 IFO0151 AOK     ALLOCATED TO SYS00011.
_ 00312 IFO0998 AOK  SYS1.COMMON1.PAGE.DATA FOUND ON VOLUME ZDPAGM.
_ 00313 IFO0757 AOK   1 DASD EXTENTS.
_ 00314 IFO0138 AOK  ALLOCATING SYS1.COMMON1.PAGE.DATA; VOL=ZDPAGM.
_ 00315 IFO0151 AOK     ALLOCATED TO SYS00012.
_ 00316 IFO0998 AOK  SYS1.LOCALM.PAGE.DATA FOUND ON VOLUME ZDPAGM.
_ 00317 IFO0757 AOK   1 DASD EXTENTS.
_ 00318 IFO0138 AOK  ALLOCATING SYS1.LOCALM.PAGE.DATA; VOL=ZDPAGM.
_ 00319 IFO0151 AOK     ALLOCATED TO SYS00013.
_ 00320 IFO0998 AOK  SYS1.LOCALN.PAGE.DATA FOUND ON VOLUME ZDPAGN.
_

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

6.7 Notification Settings

The Inspection Notification Settings Option requires authorization to use TCP/IP services under OS/390 or z/OS. To accomplish this, you must define a RACF OMVS segment authorizing use. 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 Notify functions, then the OMVS segment has not been set up properly. Once you have verified that an OMVS segment is authorized, you will need to further configure the Inspection Notification Settings. To do this, select the "Settings" option from the Production View Main Menu and then select the "EmlNotes" option. This will bring up the Background Email Notification panel.

6.7.1 Configuring the Monitor Mail Settings

To configure or re-configure the Monitor Mail Settings, you will enter or alter the values that appear in the Monitor Mail Settings panel shown below.

```
                IFO 18.0 - Background Email Notification

Server Settings:
   Mail Server     (Name or IP address of SMTP server)
    ===>
   From            (Email address)
    ===> SUPPORT@NEWERA.COM
   Primary
   Destination     (Email address)
    ===> IFO@REPORTS.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)
    ===>
Report Settings:  Audit Log ==> Y     Sysplex==> Y     Image==> Y     (Y/N)
   Report Level    ==> 1    (1, 2, 3, or 4)  Member Display ==> Y     (Y/N)
     1 - All  2 - Error & Warning  3 - Error Only  4 - Final Result Only
```

Enter or overtype the values for the following configuration variables:

6.7.1.1 Mail Server

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

6.7.1.2 From

This is the email address of the person, organization or server that is sending the mail or designated to receive acknowledgement.

6.7.1.3 Primary Destination

The default Primary Destination, support@newera.com maybe overtyped with any valid email address.

6.7.1.4 Secondary Destination

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

6.7.1.5 TCP/IP

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

6.7.1.6 Timeout

This is the value of the TIMEOUT in seconds that will be passed by Image FOCUS to TCP/IP. TCP/IP in turn will wait for confirmation of contact with the receiving entities.

6.7.1.7 SMTP Port

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

6.7.1.8 Mail Content Options

The last step in configuring the Standard Settings is to define the Mail Content Options shown in the lower part of the panel. This section of the panel is shown below.

```
Mail Content Options
Report Select Audit Log ==> N Sysplex==> Y Image==> N (Y/N)
Report Level ==> 1 (1, 2, 3, or 4) Member Display ==> Y (Y/N)
Report Level Options: 1-ALL; 2-Error & Warning; 3-Error Only; 4-Final Result Only
```

- **Report Select**

There are three specific Inspection Report Segments that can be included/excluded from Email Content: Audit Log, Sysplex Inspection and Image Inspection(s). Set the value of those Segments desired to "Y" to include them as an attachment.

6.7.1.9 Report Level

Setting the Report Level to a value of 2, 3 or 4 will limit the content of your email to: Errors & Warnings, Errors Only or Final Results Only. A value of 1 will result in the most complete report.

- ### Member Display

Setting the value of Member Display to "Y" will add the configuration definitions used in each Inspection to the Email content.

- ### Sending Email

Once you have defined the Standard Settings, you will need to take the additional step of enabling the Inspection Monitor to actually send Notifications. To do this, return to the Production View Main Menu and select Inspection Policies (option O). Now, locate the "Mail Report Option" on the Inspection Policies Menu.

If you want to send mail as part of Monitor Operations, set "MAIL REPORT OPTION" to one of the following:

1. A - Will send a report by mail with each Monitor Interval regardless of Inspection Result.
2. N - Will suspend all Monitor Mail.
3. W - Will send a report only if the Inspection Result indicates either a Warning or Error.
4. E - Will send a report only if the Inspection Result indicates an Error.
5. S - Will send a report only if the Inspection Result indicates a Success, meaning no Errors or Warnings were found.

6.7.2 Configuring the Optional NSEBKG00 Member

The NSEBKG00 Image FOCUS Configuration Member is used to configure and control enhanced, but optional, Inspection Finding and Configuration Change Notification. The primary advantage of this optional notification method is that it affords the Image FOCUS Administrator the opportunity to customize the distribution of content created in the background to those who need it and deliver it how they want it. Using this optional Control Member, the Image FOCUS Administrator can direct specific background content to be conformed into different report formats: Overall, Manager, Element and LogRecs.

The sample NSEBKG00 Configuration Member shown in this section is also found in the Image FOCUS Sample Library, SAMPLIB.

6.7.2.1 Recommended Best Practice

It is considered a *BEST PRACTICE* to always configure and confirm the operation of the default Image FOCUS Notification Service, described above, before you attempt to configure NSEBKG00. Note also that turning on NSEBKG00 will disable, and therefore render nonoperational, the default service.

6.7.3 NSEBKG00 Configuration Elements

The notification configurations defined in NSEBKG00 are contained within two primary Control Boundaries: The METHOD Block and the ACTION Block. You will use the METHOD Block to define the global policies that will Control Notification, for example the name of the Email Server and Alternate Dataset Prefix for Working and Report Dataset. You will use the ACTION Block to define specific Notification Actions, for example the name of a Sysplex or System, Report Content and Recipient Email Address.

While there is only one type of METHOD Block, METHOD EMAIL, there are three different types of ACTION Blocks: INTERVAL, INSPECT and CHANGES.

6.7.3.1 INTERVAL

The INTERVAL ACTION Block is used to define content related to Sysplex-Wide inspection findings and configuration changes.

6.7.3.2 INSPECT

The INSPECT ACTION Block is used to define content related to Image specific inspection findings.

6.7.3.3 CHANGES

The INSPECT ACTION Block is used to define content related to Image specific configuration changes.

All ACTION Blocks must be formally ended with the ACTION .END Control Statement.

6.7.4 NSEBKG00 METHOD Block

The following Keywords are valid within the METHOD EMAIL

- TO THE EMAIL ADDRESS OF THE DEFAULT RECIPIENT
- CC THE EMAIL ADDRESS OF THE DEFAULT CARBON COPY RECIPIENT
- FROM THE EMAIL ADDRESS OF THE DEFAULT SENDER
- SUBJECT THE EMAIL SUBJECT. NOTE - THIS MUST BE IN QUOTES
- SERVER THE FULLY QUALIFIED NAME OF THE MAIL SERVER.
- TCPIPJBN THE NAME OF TCPIP STACK ASSOCIATED WITH THE MAIL SERVER.
- PORT THE TCPIP PORT THAT WILL BE USED TO ATTACH TO THE SERVER.
- TIMEOUT THE SECONDS BEFORE EMAIL ATTEMPT FAILS AND IS ABORTED.
- ACTIONS TURN ALL ACTION BLOCKS ON|OFF.
- DEBUG MAIL DEBUG FUNCTION VALUE IS ON|OFF.
- RPTHLQ SPECIFY UNIQUE HLQ FOR NOTICE AND REPORT DATASETS.
- KEEPRPTS SET YES TO KEEP ALL REPORTS, NO TO DELETE ALL BUT SYSPLEX.
- BODYTEXT QUOTED TEXT TO BE INCLUDED IN THE BODY OF THE EMAIL.
- HLTHCHCK IF LICENSED, INCLUDE FINDINGS FROM HC FOR z/OS.
- RUNTIME IF LICENSED, INCLUDE FINDINGS FROM RUNTIME DIAGNOSTICS.

The METHOD Block must be formally ended with the METHOD .END Control Statement.

6.7.5 NSEBKG00 ACTION Block

When within the INTERVAL ACTION Block, the following Keywords are valid.

- SPLEX NAME A SPECIFIC SYSPLEX OR DEFAULT TO 'ALL'.
- CONTENT NAME CONTENT TYPE OVERALL, MANAGER OR DEFAULT TO OVERALL.
- SNDTO EMAIL ADDRESS OF RECIPIENT, REPEAT AS NEEDED.

When within the INSPECT ACTION Block the following Keywords are valid.

- SPLEX NAME A SPECIFIC SYSPLEX OR DEFAULT TO 'ALL'.
- IMAGE NAME AN IMAGE IN THE SYSPLEX OR DEFAULT TO 'ALL'.
- CONTENT WITH IMAGE CONTENT TYPE MANAGER, ELEMENT OR DEFAULT TO MANAGER.
- PARTS NAME AN IMAGE BOUNDARY: CORE, JES2, VTAM, ETC OR DEFAULT TO CORE.
- CONTENT WITH PART CONTENT TYPE ELEMENT, LOGRECS DEFAULT TO ELEMENT.
- SNDTO EMAIL ADDRESS OF RECIPIENT, REPEAT AS NEEDED.

When within the CHANGES ACTION Block the following Keywords are valid.

- SPLEX NAME A SPECIFIC SYSPLEX OR DEFAULT TO 'ALL'.
- IMAGE NAME AN IMAGE IN THE SYSPLEX OR DEFAULT TO 'ALL'.
- CONTENT WITH IMAGE CONTENT TYPE MANAGER, ELEMENT OR DEFAULT TO MANAGER.
- PARTS NAME AN IMAGE BOUNDARY: CORE, JES2, VTAM, ETC OR DEFAULT TO CORE.
- CONTENT WITH PART CONTENT TYPE ELEMENT, LOGRECS DEFAULT TO ELEMENT.
- SNDTO EMAIL ADDRESS OF RECIPIENT, REPEAT AS NEEDED.

See also the sample NSEBKG00 Member for additional explanation and to view a sample of the use of these ACTION Block keywords.

6.7.6 NSEBKG00 Notice Consolidation

An individual Email Address, defined by SNDTO, within an ACTION Block, may be defined multiple times within the same ACTION Block and any of the other valid ACTION Blocks. When this occurs, the reports referenced for that email address will be assembled into a single dataset and sent as an attachment to the email sent to the address.

6.7.7 Sample Notification Reports

Each Notification Report follows a common format defined by vertical and horizontal content. On the vertical axis you will find Sysplex or Image Boundaries, while on the horizontal you will find History and Trends. When Element and LogRecs Report Formats are selected, additional summary and/or detail information is provided for the current report period below an upper summary. The sample reports, shown on the following pages, illustrate these various reporting elements at different levels of reporting Sysplex, Image, and Image Parts.

In the sample reports shown below, we are reporting on a single Sysplex, PROD00GB containing two Images, PROD0011 and PROD0012.

6.7.7.1 Sysplex – Overall Summary

```
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - SYSPLEX PROD00GB
|
TCE0000I INSPECTION DATE:03/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2021068.T0000001
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |                RECENT CHANGES IN SYSPLEX-WIDE FINDINGS            |
TCE0000I +---------------------+---------------------------------------------+
TCE0000I |  SYSPLEX:PROD00GB   |    SYSPLEX-WIDE FINDINGS HISTORY AND TREND  |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     IMAGE COUNT     | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 |
TCE0000I +---SYSPLEX_BOUNDARY--+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |  SYSPLEX CROSSCHECK | E-N | E-N | E-N | E-N | E-N | E-N | E-N | E-N |
TCE0000I |  IMAGE INSPECTIONS: |     |     |     |     |     |     |     |     |
TCE0000I |    -NAME:PROD0011   | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |    -NAME:PROD0012   | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |  PARAMETER CHANGES: |     |     |     |     |     |     |     |     |
TCE0000I |    -NAME:PROD0011   | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I |    -NAME:PROD0012   | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
```

6.7.7.1 Sysplex - Manager

```
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - SYSPLEX PROD00GB
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2021068.T0000001
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |                RECENT CHANGES IN SYSPLEX-WIDE FINDINGS            |
TCE0000I +---------------------+---------------------------------------------+
TCE0000I |  SYSPLEX:PROD00GB   |     SYSPLEX-WIDE FINDINGS HISTORY AND TREND |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     IMAGE COUNT     | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 |
TCE0000I +---SYSPLEX_BOUNDARY--+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |  SYSPLEX CROSSCHECK | E-N | E-N | E-N | E-N | E-N | E-N | E-N | E-N |
TCE0000I |  IMAGE INSPECTIONS: |     |     |     |     |     |     |     |     |
TCE0000I |    -NAME:PROD0011   | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |    -NAME:PROD0012   | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |  PARAMETER CHANGES: |     |     |     |     |     |     |     |     |
TCE0000I |    -NAME:PROD0011   | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I |    -NAME:PROD0012   | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - IMAGE PROD0011
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2021068.T0000001
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |            RECENT CHANGES IN IMAGE INSPECTION FINDINGS            |
TCE0000I +---------------------+---------------------------------------------+
TCE0000I |  PROD00GB/PROD0011  |    INSPECTION FINDINGS HISTORY AND TREND    |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     TOTAL - EWN     | 238 | 238 | 238 | 238 | 238 | 238 | 238 | 238 |
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS        | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |        HCKR         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2         | -W- | -W- | -W- | -W- | -W- | -W- | -W- | -W- |
TCE0000I |        JES3         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS         | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MODULES      | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MEMBERS      | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        CSDS         | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        PLEXPARMS    | --N | --N | --N | --N | --N | --N | --N | --N |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I IMAGE CONFIGURATION CHANGES - IMAGE PROD0011
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I PACKAGE DATASET:IFO.IFOE.PACKAGE.PROD0011
TCE0000I OLD MEMBER:F120307B NEW MEMBER:F120308B
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |            RECENT CHANGES IN IMAGE CONFIGURATION PARMS            |
TCE0000I +---------------------+---------------------------------------------+
```

```
TCE0000I |  PROD00GB/PROD0011  |    CONFIGURATION CHANGES HISTORY AND TREND    |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES       |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES       |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     TOTAL - CNG    | 002 | 002 | 002 | 002 | 002 | 002 | 000 | 000 |
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS       | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I |        HCKR        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES3        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER    | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MODULES     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MEMBERS     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CSDS        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        PLEXPARMS   | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - IMAGE PROD0012
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2012068.T0000001
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |             RECENT CHANGES IN IMAGE INSPECTION FINDINGS           |
TCE0000I +--------------------+----------------------------------------------+
TCE0000I |  PROD00GB/PROD0012  |     INSPECTION FINDINGS HISTORY AND TREND     |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES       |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES       |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     TOTAL - EWN    | 238 | 238 | 238 | 238 | 238 | 238 | 238 | 238 |
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS       | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |        HCKR        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2        | -W- | -W- | -W- | -W- | -W- | -W- | -W- | -W- |
TCE0000I |        JES3        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER    | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS        | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MODULES     | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MEMBERS     | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        CSDS        | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        PLEXPARMS   | --N | --N | --N | --N | --N | --N | --N | --N |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I IMAGE CONFIGURATION CHANGES - IMAGE PROD0012
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I PACKAGE DATASET:IFO.IFOE.PACKAGE.PROD0012
TCE0000I OLD MEMBER:F120202B NEW MEMBER:F120308B
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |             RECENT CHANGES IN IMAGE CONFIGURATION PARMS           |
TCE0000I +--------------------+----------------------------------------------+
TCE0000I |  PROD00GB/PROD0012  |    CONFIGURATION CHANGES HISTORY AND TREND    |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES       |08/01|08/01|07/30|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES       |15:46|15:40|18:22|18:18|18:15|18:05|17:50|17:48|
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
TCE0000I |     TOTAL - CNG     | 002 | 002 | 002 | 002 | 002 | 002 | 000 | 000 |
TCE0000I +-----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS         | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I |        HCKR          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES3          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP           | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MODULES       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MEMBERS       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CSDS          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        PLEXPARMS     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +----------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
/*****************************************************************************/
/*                                                                           */
/*                RPTDSN:IFO.IFOP.$IFOBKGS.PROD00GB($PLEXMGM)                */
/*                                                                           */
/*****************************************************************************/
      NEWERA SOFTWARE, INC.
          OUR JOB? HELP YOU AVOID PROBLEMS AND IMPROVE Z/OS INTEGRITY.
```

6.7.7.2 IMAGE - Manager – Findings

```
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - SYSPLEX/IMAGE - PROD00GB/PROD0011
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2012068.T0000001
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |             RECENT CHANGES IN IMAGE INSPECTION FINDINGS           |
TCE0000I +---------------------+---------------------------------------------+
TCE0000I |  PROD00GB/PROD0011  |     INSPECTION FINDINGS HISTORY AND TREND   |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|08/01|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |15:54|15:46|15:40|18:22|18:18|18:15|18:05|17:50|
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     TOTAL - EWN     | 238 | 238 | 238 | 238 | 238 | 238 | 238 | 238 |
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS        | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I |        HCKR         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2         | -W- | -W- | -W- | -W- | -W- | -W- | -W- | -W- |
TCE0000I |        JES3         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS         | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MODULES      | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        MEMBERS      | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        CSDS         | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
TCE0000I |        PLEXPARMS    | --N | --N | --N | --N | --N | --N | --N | --N |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I DETAIL INSPECTION FINDINGS:
|
TCE0000I 238 MESSAGE SUMMARY: ERRORS= 0 WARNINGS= 168 NOTICES= 57 IGNORED= 13
|
-#- -MESSAGE- ----------------------TYPICAL MESSAGE TEXT-----------------------
--- --------- ------------------------------------------------------------------
  1 IFO0795W< SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
  1 IFO0796W< SECONDARY ALLOCATION NOT ALLOWED.
  2 IFO0749W  SYS1.SIEALNKE IGNORED; NOT ALLOWED.
  2 IFO0408W> 9 DATASETS IN LNKLST HAVE MORE THAN ONE EXTENT.
  2 IFO0786W  UNCLOSED COMMENT DETECTED.
  1 IFO0987W  MEMBER DATA AFTER LOGICAL END OF FILE.
  2 IFO0615W  UNBALANCED COMMENTS DETECTED.
  3 IFO0983W< JCL ERROR IN PROCEDURE TCPJJ.
 23 IFO0743W  DATASET ED99.MTU.D18GE.G0016V00 NOT FOUND IN CATALOG SEARCH.
 17 JES0168W  OBSOLETE KEYWORD 'DRAIN' FOUND AT LINE 84, COLUMN 10. REPLACE WITH
 93 JES0153W  LINE 00083:          CLASS=BA,
 21 JES0152W  WARNING AT: ----+----*----+----2----+----3----+----4----+----5----
  1 IFO0725N  OBSOLETE PARAMETER APG IGNORED.
  1 IFO0651N  CMB= VALUE WILL BE IGNORED ON A REAL IPL OF A Z990 OR NEWER PROCES
 10 IFO0769N  TCPIP.SEZAMIG NOT FOUND ON VOLUME VTMVSC.
 10 IFO2100N  *INTEGRITY* APF DATASETS SHOULD NOT BE DEFINED IF THEY DO NOT EXIS
 32 IFO0768N  EQA810.SEQAMOD BYPASSED; VOLUME VTEQAB NOT MOUNTED.
 13 IFO0746I  JES2 PROCESS COMPLETED WITH WARNINGS.
|
/*************************************************************************/
/*                                                                       */
/*            RPTDSN:IFO.IFOP.$IFOBKGS.PROD00GB.PROD0011($IMAIELM)       */
/*                                                                       */
/*************************************************************************/
```

6.7.7.1 IMAGE - Manager – Changes

```
TCE0000I IMAGE CONFIGURATION CHANGES - SYSPLEX/IMAGE - PROD00GB/PROD0012
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I PACKAGE DATASET:IFO.IFOE.PACKAGE.PROD0012
TCE0000I OLD MEMBER:F120202B NEW MEMBER:F120308B
|
TCE0000I +-------------------------------------------------------------------+
TCE0000I |             RECENT CHANGES IN IMAGE CONFIGURATION PARMS            |
TCE0000I +----------------------+--------------------------------------------+
TCE0000I |  PROD00GB/PROD0012   |    CONFIGURATION CHANGES HISTORY AND TREND  |
TCE0000I +----------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES         |08/01|08/01|08/01|07/30|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES         |15:54|15:46|15:40|18:22|18:18|18:15|18:05|17:50|
TCE0000I +----------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |     TOTAL - CNG      | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 000 |
TCE0000I +----IMAGE_BOUNDARY----+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS         | --C | --C | --C | --C | --C | --C | --C | --C |
TCE0000I |        HCKR          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES2          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        JES3          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        VTAM          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        RESOLVER      | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPIP         | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TCPDATA       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        TELNET        | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        FTP           | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CICS          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MODULES       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        MEMBERS       | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        CSDS          | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I |        PLEXPARMS     | --- | --- | --- | --- | --- | --- | --- | --- |
TCE0000I +----------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I DETAIL CONFIGURATION CHANGES:
|
CNG LOADW1
CNG PROGVN
|
/*************************************************************************/
/*                                                                       */
/*           RPTDSN:IFO.IFOP.$IFOBKGS.PROD00GB.PROD0012($IMACELM)        */
/*                                                                       */
/*************************************************************************/
      NEWERA SOFTWARE, INC.
          OUR JOB? HELP YOU AVOID PROBLEMS AND IMPROVE Z/OS INTEGRITY.
```

6.7.7.2 IMAGE Parts – Core - Findings

```
TCE0000I IMAGE FOCUS INSPECTION FINDINGS - SYSPLEX/IMAGE= PROD00GB/PROD0012
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I INSPECTION LOG DATASET:IFO.IFOPBG.REPORT.D2012068.T0000001
|
TCE0000I Z/OS CORE INSPECTION FINDINGS - IMAGE=PROD0011
|
TCE0000I +---------------------+-------------------------------------------------+
TCE0000I |  PROD00GB/PROD0011  |     INSPECTION FINDINGS HISTORY AND TREND       |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|08/01|08/01|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |16:04|15:54|15:46|15:40|18:22|18:18|18:15|18:05|
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS        | -WN | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I +---------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
TCE0000I 93 MESSAGE SUMMARY: ERRORS= 0 WARNINGS= 37 NOTICES= 56 IGNORED= 0
|
-#- -MESSAGE- ----------------------TYPICAL MESSAGE TEXT-----------------------
--- --------- ------------------------------------------------------------------
  1 IFO0795W< SYS1.NUCLEUS HAS INVALID ATTRIBUTES.
  1 IFO0796W< SECONDARY ALLOCATION NOT ALLOWED.
  2 IFO0749W  SYS1.SIEALNKE IGNORED; NOT ALLOWED.
  2 IFO0408W> 9 DATASETS IN LNKLST HAVE MORE THAN ONE EXTENT.
  2 IFO0786W  UNCLOSED COMMENT DETECTED.
  1 IFO0987W  MEMBER DATA AFTER LOGICAL END OF FILE.
  2 IFO0615W  UNBALANCED COMMENTS DETECTED.
  3 IFO0983W< JCL ERROR IN PROCEDURE TCPJJ.
 23 IFO0743W  DATASET ED99.MTU.D18GE.G0016V00 NOT FOUND IN CATALOG SEARCH.
  1 IFO0725N  OBSOLETE PARAMETER APG IGNORED.
  1 IFO0651N  CMB= VALUE WILL BE IGNORED ON A REAL IPL OF A Z990 OR NEWER PROCES
 10 IFO0769N  TCPIP.SEZAMIG NOT FOUND ON VOLUME VTMVSC.
 10 IFO2100N  *INTEGRITY* APF DATASETS SHOULD NOT BE DEFINED IF THEY DO NOT EXIS
 32 IFO0768N  EQA810.SEQAMOD BYPASSED; VOLUME VTEQAB NOT MOUNTED.
  1 IFO0632N  APF ENTRY FOR SYS1.LINKLIB ON VOLUME VIMVSB IGNORED; ALREADY ADDED
  1 IFO0413N  SYS1.SBDTLPA/VTMVSC IS A DUPLICATE LPALST ENTRY.
|
TCE0000I FULL Z/OS CORE INSPECTION AND FINDINGS
|
IFO0999I REPORT FOR IMAGE PROD0011 SYSTEM S0W1     WARNING.
IFO1000I  REPORT GENERATED BY BACKGROUND EXECUTION ON 05/08/2021 AT 00:01:30.
IFO1012I  PRODNAME=PROD00GB; IMAGE NAME=PROD0011.
IFO1001I  SYSTEM ID=S0W1; SYSTEM NAME=S0W1; SYSPLEX NAME=SVSCPLEX.
IFO0000I  REPORT DATASET:  'IFO.IFOEBG.REPORT.D2021068.T0000001'.
IFO1008I  PACKAGE INDEX DATASET: 'IFO.IFOE.PACKAGE.INDEX'.
IFO0765I  LICENSED TO NEWERA/STANDARD/IFO  (SITE EDITION).
IFO0741I  INSPECTION=Y; STORE PACKAGE=Y; RELEASE=.
IFO0727I  IMAGE FOCUS 18.0 P00.
|
IFO0900I IPL REQUESTED FROM UNIT 1000.
IFO0922I SUPPLIED LOADPARM IS 0CE3W1.1.
IFO0901I  LOADPARM IODF UNIT=0CE3 SPECIFIED.
IFO0901I  LOADPARM LOADW1 SPECIFIED.
IFO0950I  LOADPARM IMSI SPECIFIED AS OR DEFAULTED TO ".".
IFO0901I  LOADPARM IEANUC01 SPECIFIED.
IFO0712I  HWNAME VM-TOKEN SPECIFIED.
IFO0712I  VMUSERID ETPGMQC SPECIFIED.
IFO0712I  ADD'L COMMNDXX IF SPECIFIED.
|
...
```

6.7.7.1 IMAGE Parts – Core - Changes

```
TCE0000I IMAGE CONFIGURATION CHANGES - SYSPLEX/IMAGE - PROD00GB/PROD0012
|
TCE0000I INSPECTION DATE:05/08/2021 TIME:00:03:01
TCE0000I PACKAGE DATASET:IFO.IFOE.PACKAGE.PROD0012
TCE0000I OLD MEMBER:F120202B NEW MEMBER:F120308B
|
TCE0000I Z/OS CORE CONFIGURATION CHANGES - IMAGE=PROD0012
|
TCE0000I +--------------------+-------------------------------------------------+
TCE0000I |  PROD00GB/PROD0012  |    CONFIGURATION CHANGE HISTORY AND TREND     |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        DATES        |08/01|08/01|08/01|08/01|07/30|07/30|07/30|07/30|
TCE0000I |        TIMES        |16:04|15:54|15:46|15:40|18:22|18:18|18:15|18:05|
TCE0000I +----IMAGE_BOUNDARY---+-----+-----+-----+-----+-----+-----+-----+-----+
TCE0000I |        OPSYS        | --C | -WN | -WN | -WN | -WN | -WN | -WN | -WN |
TCE0000I +--------------------+-----+-----+-----+-----+-----+-----+-----+-----+
|
CNG LOADW1   ------------------------------------------------------------------
--- ----------------------------BASELINE CHANGES-------------------------------
INS  PARMLIB  VENDOR.PARMLIB1
|
CNG PROGVN   ------------------------------------------------------------------
--- ----------------------------BASELINE CHANGES-------------------------------
INS      DSNAME(IFO.IFOTT.LOAD)                          VOLUME(VPWRKT)
DEL      DSNAME(IFO.IFOT.LOAD)                           VOLUME(VPWRKG)
|
/*****************************************************************************/
/*                                                                           */
/*            RPTDSN:IFO.IFOP.$IFOBKGS.PROD00GB.PROD0012($ALLPART)           */
/*                                                                           */
/*****************************************************************************/
      NEWERA SOFTWARE, INC.
          OUR JOB? HELP YOU AVOID PROBLEMS AND IMPROVE Z/OS INTEGRITY.
```

6.7.8 Sample NSEBKG00 Configuration Member

```
*----------------------SAMPLE NSEBKG00 MEMBER--------------------*
*                                                                *
* THE PURPOSE OF THIS IMAGE FOCUS CONFIGURATION MEMBER IS TO SUPPORT  *
* SPECIFIC USER CONTROL OVER CERTAIN ENHANCED NOTIFICATION FUNCTIONS. *
* THESE FUNCTIONS WORK ONLY IN CONJUNCTION WITH THE IMAGE FOCUS BACK- *
* GROUND REPORTING TASK, OPERATE INDEPENDENTLY FROM ALL OTHER NOTIFI- *
* CATION FUNCTIONS SUPPORTED IN THE INTEGRITY CONTROL ENVIRONMENT    *
* (ICE) AND DISABLE DEFAULT NOTIFICATION SUPPORTED BY IMAGE FOCUS.   *
*                                                                *
*                                                                *
* TO ENABLE THESE ENHANCED NOTIFICATION FUNCTIONS YOU MUST:       *
*                                                                *
* 1 - SET THE VALUE OF "NSEBKG00 OPTION" FOUND ON THE IMAGE FOCUS *
*     CONTROL OPTIONS PANEL TO "Y". THIS DISABLES DEFAULT FUNCTIONS. *
* 2 - CORRECTLY SPECIFY THE EMAIL SERVER TO BE USED TO DELIVER THE *
*     NOTICES. NEXT CONFIGURE AND AUTHORIZE A RELATED OMVS SEGMENT.  *
* 3 - IDENTIFY, AS NECESSARY, THE SYSPLEX/IMAGES TO BE REPORTED ON BY *
*     NAME, THE REPORTS TO BE DELIVERED AND THEIR RELATED RECIPIENTS. *
*                                                                *
*-----------------------METHOD BLOCK DEFINITION-------------------*
*                                                                *
* USE THE FOLLOWING KEYWORDS, WITHIN A METHOD BLOCK, TO DEFINE THE   *
* MAIL SERVER THAT WILL DELIVER THE EMAIL NOTICES AND REPORTS. ALL   *
* SUCH DELIVERIES ARE ATTACHED TO THE EMAIL AS A .TXT FILE.          *
*                                                                *
* ALL KEYWORDS MUST BEGIN IN COLUMN 1.                           *
*                                                                *
* METHOD EMAIL------------------------------------------------------ *
*                                                                *
* KEYWORD  ------------------KEYWORD VALUE DESCRIPTION--------------- *
* TO       THE EMAIL ADDRESS OF THE DEFAULT RECIPIENT              *
* CC       THE EMAIL ADDRESS OF THE DEFAULT CARBON COPY RECIPIENT  *
* FROM     THE EMAIL ADDRESS OF THE DEFAULT SENDER                 *
* SUBJECT  THE EMAIL SUBJECT. NOTE - THIS MUST BE IN QUOTES        *
* SERVER   THE FULLY QUALIFIED NAME OF THE MAIL SERVER.            *
* TCPIPJBN THE NAME OF TCPIP STACK ASSOCIATED WITH THE MAIL SERVER.  *
* PORT     THE TCPIP PORT THAT WILL BE USED TO ATTACH TO THE SERVER. *
* TIMEOUT  THE SECONDS BEFORE EMAIL ATTEMPT FAILS AND IS ABORTED.  *
* ACTIONS  TURN ALL ACTION BLOCKS ON|OFF.                          *
* DEBUG    MAIL DEBUG FUNCTION VALUE IS ON|OFF.                    *
* RPTHLQ   SPECIFY UNIQUE HLQ FOR NOTICE AND REPORT DATASETS.      *
* KEEPRPTS SET YES TO KEEP ALL REPORTS, NO TO DELETE ALL BUT SYSPLEX. *
* BODYTEXT QUOTED TEXT TO BE INCLUDED IN THE BODY OF THE EMAIL.    *
* HLTHCHCK IF LICENSED, INCLUDE FINDINGS FROM HC FOR z/OS.         *
* RUNTIME  IF LICENSED, INCLUDE FINDINGS FROM RUNTIME DIAGNOSTICS. *
*                                                                *
* METHOD .END                                                    *
*                                                                *
*-------------------------SAMPLE METHOD BLOCK----------------------*

METHOD EMAIL
TO       prr@newera.com
CC
FROM     support@newera.com
SERVER   mail.livezone.net
TCPIPJBN TCPIP
SUBJECT  'NEW IMAGE FOCUS NOTIFICATION FUNCTIONS'
PORT     25
TIMEOUT  45
```

```
ACTIONS  ON
DEBUG    OFF
KEEPRPTS NO
BODYTEXT 'THE IFO PARMLIB MEMBER NSEBKG00 CONTROLS OPTIONAL EMAIL'
BODYTEXT 'NOTIFICATION. TO ACTIVATE THIS OPTIONAL FUNCTION, SET'
BODYTEXT 'THE VALUE OF THE NSEBKG00 OPTION FOUND ON THE IMAGE FOCUS'
BODYTEXT 'PRODUCTION CONTROL PANEL TO "Y". TOGGLE OFF WITH "N".'
BODYTEXT ' '
BODYTEXT 'BEST REGARDS, NEWERA TECHNICAL SUPPORT'
METHOD .END

*------------------------ACTION BLOCK DEFINITION-----------------------*
*                                                                      *
* EACH REPORT SET FOR A GIVEN SYSPLEX IS DEFINED WITH ONE OR MORE      *
* ACTION BLOCK(S). IF YOUR IFO BACKGROUND REPORT CONFIGURATION IN-     *
* CLUDES MORE THAN ONE SYSPLEX START A NEW SET OF ACTION BLOCKS FOR    *
* EACH NAMED SYSPLEX.                                                  *
*                                                                      *
* THERE ARE THREE ACTION BLOCKS AVAILABLE:                             *
*                                                                      *
* ACTION IFOBKG(INTERVAL)------------------------------------------- *
*                                                                      *
* USE THIS ACTION BLOCK WHEN YOU WANT TO SEND NOTICE OF THE INTERVAL   *
* AND AN IMAGE BY IMAGE SUMMARY OF FINDINGS AND CHANGES.               *
*                                                                      *
* ACTION IFOBKG(INSPECT)-------------------------------------------- *
*                                                                      *
* USE THIS ACTION BLOCK WHEN YOU WANT TO SEND NOTICE OF INSPECTION     *
* FINDINGS FOR ALL OR NAMED IMAGES.                                    *
*                                                                      *
* ACTION IFOBKG(CHANGES)-------------------------------------------- *
*                                                                      *
* USE THIS ACTION BLOCK WHEN YOU WANT TO SEND NOTICE OF CONFIGURATION  *
* CHANGES FOR ALL OR NAMED IMAGES.                                     *
*                                                                      *
* ----------------------KEYWORD VALUE DESCRIPTION--------------------- *
*                                                                      *
* SPLEX(ALL|named_sysplex)------------------------------------------ *
*                                                                      *
* EACH REPORT SET, AS DEFINED WITHIN AN ACTION BLOCK, MUST BEGIN WITH  *
* THE NAMING OF THE SYSPLEX. TO NAME THE SYPLEX ENTER "SPLEX(" IN      *
* COLUMN ONE FOLLOWED BY TEXT ENTRY. YOUR OPTIONS ARE THE WORDS BLANK  *
* ALL OR THE ACTUAL NAME OF THE SYSPLEX, named_sysplex. WHEN EITHER    *
* BLANK OR ALL ARE USED THE SYSPLEX DISCOVERED IN THE INSPECTION LOG   *
* WILL BE USED.                                                        *
*                                                                      *
* IMAGE(ALL|named_image)-------------------------------------------- *
*                                                                      *
* EACH REPORT SET, AS DEFINED WITHIN AN ACTION BLOCK, MAY NAME EACH    *
* INDIVIDUAL IMAGE IN ORDER TO DISCRIMINATE NOTIFICATION ON AN IMAGE   *
* BY IMAGE BASIS. TO NAME AN IMAGE ENTER "IMAGE(" IN COLUMN ONE FOL-   *
* LOWED BY TEXT ENTRY, YOUR OPTIONS ARE THE WORDS BLANK, ALL OR THE    *
* ACTUAL NAME OF IMAGE FOUND WITHIN THE NAMED SYSPLEX, named_image.    *
* WHEN EITHER BLANK OR ALL ARE USED ALL IMAGES DISCOVERED WITHIN THE   *
* INSPECTION LOG WILL BE USED.                                         *
*                                                                      *
* PARTS(part_name)-------------------------------------------------- *
*                                                                      *
* EACH SYSPLEX/IMAGE PAIR HAS A UNIQUE INSPECTION REPORT WITHIN THE    *
* INSPECTION LOG. WHEN YOU ARE REQUIRED TO SEND CERTAIN PORTIONS OF    *
* LOG, PARTS, TO SPECIFIC INDIVIDUALS YOU MUST NAME THE PART. TO NAME  *
* A SPECIFIC PART WITHIN A SPECIFIC IMAGE ENTER THE KEYWORD "PART("    *
```

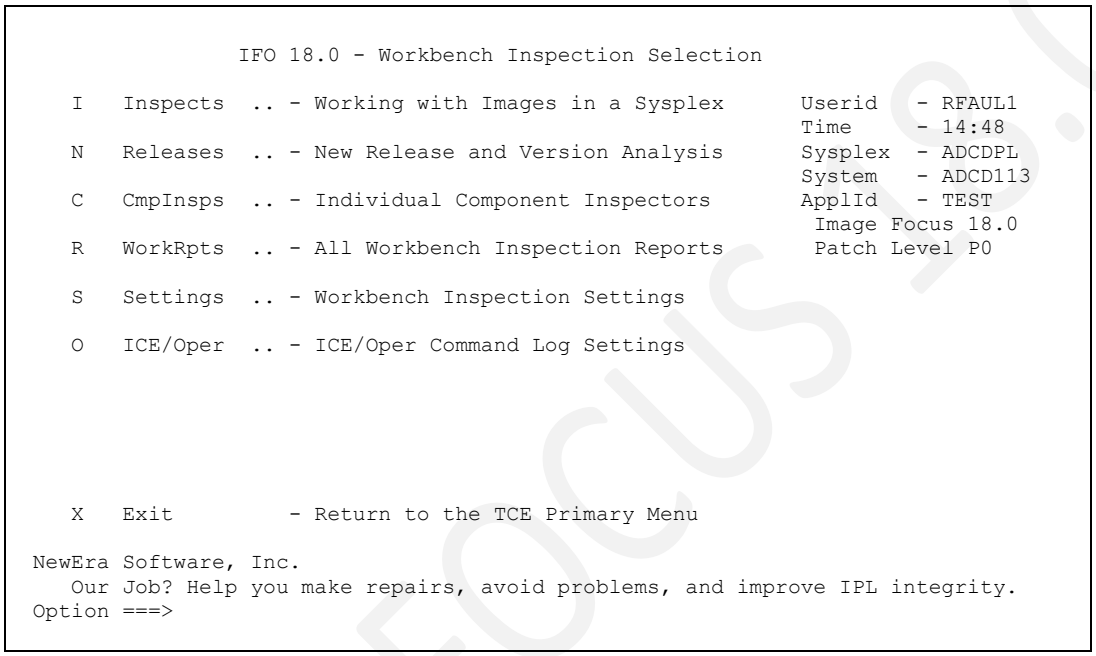
```
* IN COLUMN ONE FOLLOWED BY THE NAME OF ONE SPECIFIC PART NAME ONLY.  *
* YOU MAY REPEAT THE USE OF "PART(" AS NEEDED.                        *
*                                                                     *
* PART (part_name) OPTIONS ARE:                                       *
*                                                                     *
* CORE|JES2|JES3|RESL|TCPS|DATA|TNET|FTPS|CICS|LOAD|MBRS|CSDS or PPRM *
*                                                                     *
* HCKR|RTDS MAY ALSO BE SPECIFIED BUT REQUIRE OPTIONAL LICENSING.     *
*                                                                     *
* CONTENT(OVERALL|MANAGER|ELEMENT|LOGRECS)--------------------------- *
*                                                                     *
* CONTENT VALUES MAYBE ONLY BE USED AS SHOWN IN THE FOLLOWING TABLES: *
*                                                                     *
* 1) WHEN ACTION IFOBKG(INTERVAL) IS USED THE FOLLOWING REPORTS ARE   *
*    AVAILABLE.                                                       *
*                                                                     *
*    -REPORTS- ---------REPORT CONTENT OPTIONS-------- -DEFAULT-      *
*      LEVEL    OVERALL   MANAGER   ELEMENT   LOGRECS   CONTENT      *
*    --------- --------- --------- --------- --------- ---------     *
*      SPLEX      XXX       XXX                          OVERALL     *
*                                                                     *
* 2) WHEN ACTION IFOBKG(INSPECT) OR ACTION IFOBKG(CHANGES) ARE USED   *
*    THE FOLLOWING REPORTS ARE AVAILABLE.                             *
*                                                                     *
*    -REPORTS- ---------REPORT CONTENT OPTIONS-------- -DEFAULT-      *
*      LEVEL    OVERALL   MANAGER   ELEMENT   LOGRECS   CONTENT      *
*    --------- --------- --------- --------- --------- ---------     *
*      IMAGE               XXX       XXX                MANAGER     *
*      PARTS                         XXX       XXX      ELEMENT     *
*                                                                     *
* OPTIONALLY SPECIFY THE KEYWORD "SPLEX(" WITHIN THE INSPECT AND/OR   *
* CHANGES ACTION BLOCK TO DELIMIT NOTIFICATION TO A SPECIFIC SYSPLEX. *
*                                                                     *
* WHEN USED WITHIN THE INSPECT ACTION BLOCK "ELEMENT" REPORT CONTENT  *
* INCLUDES ONLY MESSAGE SUMMARY RECORDS. WHEN USED WITHIN THE CHANGES *
* ACTION BLOCK REPORT CONTENT INCLUDES ONLY MEMBER ISPF DATA.         *
*                                                                     *
* WHEN USED WITHIN THE INSPECT ACTION BLOCK "LOGRECS" REPORT CONTENT  *
* INCLUDES ALL PART INSPECTION RECORDS. WHEN USED WITHIN THE CHANGES  *
* ACTION BLOCK REPORT CONTENT INCLUDES SUPERCOMPARE LIKE DATA.        *
*                                                                     *
* IF THE CONTENT VALUE IS NOT SPECIFIED THE DEFAULT VALUE IS USED.    *
*                                                                     *
* SNDTO(email_address)----------------------------------------------- *
*                                                                     *
* FOLLOWING THE IDENTIFICATION OF EITHER A SYSPLEX, IMAGE OR PART USE *
* "SNDTO(" TO IDENTIFY A SINGLE RECIPIENT. REPEAT THE USE OF "SNDTO(" *
* UNTIL ALL RECIPIENTS HAVE BEEN IDENTIFIED.                          *
*                                                                     *
* IF "SPLEX(" OR "IMAGE(" OR "PART(" IS FOUND BUT "SNDTO(" DOES NOT   *
* IMMEDIATELY FOLLOW THE RECIPIENT WILL BE THE DEFAULT RECIPIENT AS   *
* DEFINED IN THE METHOD BLOCK. IF "SNDTO(" IS FOUND THE DEFAULT WILL  *
* BY REPLACED BY THE VALUE OF "SNDTO("                                *
*                                                                     *
*-------------SAMPLE ACTION BLOCK:OVERALL SYSPLEX SUMMARY-------------*

ACTION IFOBKG(INTERVAL)

SPLEX(ALL) CONTENT(MANAGER)

ACTION .END
```

```
*---------------SAMPLE ACTION BLOCK:INSPECTION FINDINGS---------------*

ACTION IFOBKG(INSPECT)

SPLEX(ALL)

IMAGE(ALL) CONTENT(ELEMENT)
SNDTO(prr@newera.com)

PARTS(CORE) CONTENT(LOGRECS)

PARTS(HCKR) CONTENT(LOGRECS)

PARTS(JES2) CONTENT(LOGRECS)

PARTS(JES3) CONTENT(LOGRECS)

PARTS(VTAM) CONTENT(LOGRECS)

PARTS(RESL) CONTENT(LOGRECS)

PARTS(TCPS) CONTENT(LOGRECS)

PARTS(DATA) CONTENT(LOGRECS)

PARTS(TNET) CONTENT(LOGRECS)

PARTS(FTPS) CONTENT(LOGRECS)

PARTS(CICS) CONTENT(LOGRECS)

PARTS(LOAD) CONTENT(LOGRECS)

PARTS(MBRS) CONTENT(LOGRECS)

PARTS(CSDS) CONTENT(LOGRECS)

PARTS(PPRM) CONTENT(LOGRECS)

ACTION .END

*---------------SAMPLE ACTION BLOCK:CONFIGURATION CHANGES---------------*

ACTION IFOBKG(CHANGES)

SPLEX(ALL)

IMAGE(ALL) CONTENT(ELEMENT)
SNDTO(prr@newera.com)

PARTS(CORE) CONTENT(LOGRECS)

PARTS(HCKR) CONTENT(LOGRECS)

PARTS(JES2) CONTENT(LOGRECS)

PARTS(JES3) CONTENT(LOGRECS)

PARTS(VTAM) CONTENT(LOGRECS)

PARTS(RESL) CONTENT(LOGRECS)
```

```
PARTS(TCPS) CONTENT(LOGRECS)

PARTS(DATA) CONTENT(LOGRECS)

PARTS(TNET) CONTENT(LOGRECS)

PARTS(FTPS) CONTENT(LOGRECS)

PARTS(CICS) CONTENT(LOGRECS)

PARTS(LOAD) CONTENT(LOGRECS)

PARTS(MBRS) CONTENT(LOGRECS)

PARTS(CSDS) CONTENT(LOGRECS)

PARTS(PPRM) CONTENT(LOGRECS)

ACTION .END

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

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.



7.1 Sysplex/Image Inspection

A Sysplex is a collection of from two to thirty-two System Images that have been configured to cooperate in providing information. Conflicts in the configuration parameters that define the relationship of each System Image to the Sysplex may result in operational failures within the Sysplex, but not necessarily within the individual Images. The purpose of the Image FOCUS Sysplex/Image Inspector is to inspect the parameters that define the existing, or planned Sysplex Relationships, of each System Image, validate their eligibility for inclusion in the Sysplex, and cross check each for conflicts that would result in Sysplex failure.

7.1.1 Selecting a Sysplex

Selecting the “Inspects” Option from the Workbench menu will display the Sysplex/Image Inspection Selection Screen.

```
               IFO 18.0 - Sysplex/Image Inspection Selection  Row 1 to 4 of 4

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

LINE -- ENTRY --   SYS(PLEX) IPL   LOAD     ------ LAST INSPECTION ------
CMD  TYPE  NAME      NAME    ADDR  PARM        DATE      TIME    RESULT
..    S  PROD0001  ADCDPL
..    I  IMAG0001  ADCD113   0A80 0A82XA
..    I  IMAG0002  BDCD113   0A80 0A82XB
..    I  IMAG0003  CDCD113   0A80 0A82XC
****************************** Bottom of data ********************************
```

If this is the first use of this option, Image FOCUS will invoke the “Auto-Discovery” facility of the Inspection Server to determine and display the System Name, IPL and LOADPARM information for each System Image that is correctly defined within the Sysplex on which Image FOCUS is currently running.

Images discovered should be selected individually and their Image Definitions reviewed for completeness.

If the “X” Option has been previously used, the date, time and results of the last Sysplex/Image Inspection will be displayed under the column heading "------LAST INSPECTION ------".

7.1.1.1 Entry Names

In the sub-column "NAME", under the major-column heading "--ENTRY--", you may enter an optional eight-character Sysplex and/or Image Name for each element discovered or defined. To do this, place the cursor in the column/row and enter the name. To change a name, place the cursor in the column/row and overtype the entry. When you exit the panel, the name will be saved.

Sysplex Inspection Selection

```
                IFO 18.0 - Sysplex/Image Inspection Selection  Row 1 to 4 of 4

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

LINE -- ENTRY --   SYS(PLEX) IPL   LOAD     ------ LAST INSPECTION ------
CMD  TYPE  NAME      NAME    ADDR  PARM        DATE      TIME    RESULT
..    S  PROD0001  ADCDPL                   05/14/2021   00:17   ERROR
..    I  IMAG0001  ADCD113   0A80 0A82XA    05/14/2021   00:15   WARNING
..    I  IMAG0002  BDCD113   0A80 0A82XB    05/14/2021   00:16   WARNING
..    I  IMAG0003  CDCD113   0A80 0A82XC    05/14/2021   00:17   WARNING
****************************** Bottom of data ********************************
```

7.1.2 Working with an Image in a Sysplex

Before you can run an Inspection, you will need to define the Sysplex and its Images. To do this, you will need to select each individual Image in the Sysplex, using the Work with an Image option, and validate or update its Image Definition. To select an Image, place an "S" on the Command Line before the Image Name and press enter. This action will immediately display the Image Definition and Settings for the selected Image.

```
                IFO 18.0 - Define Image for Sysplex Inspection

IMAGE NAME:      ==> IMAG0001     (A User Assigned Name - up to eight
       Characters, will default to MVS System Name when it is found)

MVS IPL INPUT:
 MVS IPL ADDRESS ==> 0A80         (Four Digits)
 MVS LOAD PARM   ==> 0A82XA       (Up to Eight Characters)
 SYSCAT SUFFIX   ==>              (IEA347A Specify Master Catalog Parameters)
 IEASYS00 SUFFIX ==>              (IEA101A Specify System Parameters)
 ADD'L COMMNDxx  ==>              (See Image FOCUS Documentation)
FILTERING INPUT:
 HARDWARE NAME   ==>              (Processor Name)
 LPAR NAME       ==>              (LPAR Name)
 VM USERID       ==>              (MVS VM UserID)
OPTIONAL PARMLIB:                 (Concatenated before LOADxx Parmlibs)
 DATASET NAME    ==> N/A          (Not Applicable for Images in a Sysplex)

INSPECTION OPTIONS:  ---System--- ----Subsystems----- -Supplemental- --Custom--
 INSPECTOR NAMES      OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
 SELECTION (Y/N) ==>    Y     Y    N    N    N    N    N    N    N    N    N

             (Return and Select Work With an Image to Begin Inspection)
```

Validate that the values used to define the named Image in the section headings, IPL Input and Filtering Input are correct, and that the selected Processing Options reflect your desired inspection. If you wish to change a value or option, place the cursor in the field and overtype it. Note you cannot execute a single Image Inspection from this panel;

therefore, if you press enter, the message "Use Work with an Image for single Image Inspection" will be displayed. When you PFK3 out of the panel, your new definition will be saved. This action will have no effect on Sysplex/Image definitions that have been previously promoted to Production. If you want your changes to be included in Production, you will need to re-promote the updated definition.

7.1.2.1 Image Definition Elements

Each element in an Image Definition is discussed below.

- Image Name

This is any valid Name. It should be descriptive of the Image being defined as it will appear in the Image Selection Menu.

- MVS IPL INPUT

The next five fields are used to supply specific parameters for MVS and z/OS that are used to IPL the Named Image.

- MVS IPL ADDRESS

This is the four-digit device address of the MVS IPL device.

- MVS LOAD PARM

This is the one-to-eight character LOADPARM value.

The SYSCATxx and IEASYSxx input fields are initially disabled for user input. If the MVS LOADPARM contains a prompt character for one or both of these fields, then after the enter key is pressed on the panel, the selected field(s) will be enabled for user input.

- SYSCATxx SUFFIX

If the MVS LOADPARM specifies that the system should prompt for Master Catalog Parameter, this field will be enabled after the enter key is pressed on the panel. Enter the value that is normally specified as the SYSCATxx SUFFIX.

- IEASYSxx SUFFIX

If the MVS LOADPARM specifies that the system should prompt for System Parameters, this field will be enabled after the enter key is pressed on the panel. Enter the value that is normally specified as the IEASYSxx SUFFIX.

- ADD'L COMMANDxx

This value is the two-character suffix that defines the name of a member that you will have added to Parmlib that contains information that will be used by Image FOCUS to start the TCP/IP subsystems or other subsystems that are not started directly by the Operating System during an IPL.

- Filtering Input

The next three fields are used for LOADxx filtering introduced in OS/390 V1R2. The fields entered here represent the names of the processor, LPAR, and Virtual Machine that the system will be IPLed from.

- HARDWARE NAME

This is the name of the processor that the system will be IPLed from. If no value is specified, then no specific processor name will be used. If a blank processor name is needed, then enter -BLANK.

- LPAR NAME

This is the name of the logical partition that the system will be IPLed from. If no value is specified, then no specific logical partition will be used. If a blank logical partition name is needed, then enter -BLANK.

- VM USERID

This is the VM USERID of the virtual machine that the system will be IPLed from. If no value is specified, then no specific USERID will be used. If a blank USERID is needed, then enter -BLANK. The next field is used for testing various LOADxx configurations.

- Processing Options

Use these fields in the Image Definition Screen to turn the various Inspectors ON=Y or OFF=N. The Opsys Inspector is by default always ON.

7.1.3 Selecting a Sysplex

Since each Image is defined individually, it is possible that there will be a mismatch of processing options when one Image Definition is compared to the others in the same Sysplex. To control and better manage the Processing Options across all the Images in a named Sysplex, place an "S" on the Command Line before the Sysplex name (PRODNAME)

and press enter. This action will immediately display the Global Image Inspection Settings panel.

```
                IFO 18.0 - Global Image Inspection Settings

PRODNAME: PROD0001

Inspection Alternatives:          -----Global Image Definition Options-----
 Option in Use  ==> D             O - Temporary Image Definition Overrides
                                  D - Defaults for All New Image Definitions
                                  I - Ignored by All New Image Definitions

Processing Options:   OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
 Inspection     ==>     Y     Y    N    N    N    N    N    N    N    N    N
```

To create Global Settings for the Sysplex, you should first validate the setting for each Processing Option. To change a Processing Option, overtype it. Next, select one of the Global Use Options.

7.1.3.1 Override Image Definitions

This option will cause the Processing Options defined in this panel to override those currently specified for each Image.

7.1.3.2 Default for New Image Definitions

This option will cause each new Image Definition to inherit the Processing Options defined in this panel. These Processing Options may, however, be overridden by specific individual Image Processing Options.

7.1.3.3 Ignored by Image Definitions

This option will result in no impact on the individual Image Definitions.

7.1.4 Running a Sysplex Inspection

In order to complete a Sysplex Inspection, Image FOCUS must first inspect each Image defined within the Sysplex as it would during a normal Image Inspection. In addition, it must collect and store Sysplex-specific information from each Image that will affect its relationship with other Images. This information is used to determine if an Image is eligible for inclusion in a Sysplex and meets the requirements of a good Sysplex Citizen.

7.1.5 Sysplex Inspection Reports

Placing an “X” on the command line next to the Sysplex name and pressing enter will cause Image FOCUS to pass the Image(s) and Sysplex definitions to the Inspection Server with a request to perform a complete Sysplex Inspection. Note that the "X" will not work when used against an Image Name and will return the notation "Command Invalid".

When an Inspection is complete, the selection panel will be redisplayed updating the date, time and results of the Sysplex and Image(s) Inspections. To view the Index for the Sysplex Report, place an "N" next to the Sysplex Name and press enter. This action will immediately display the Sysplex Report Index.

```
                IFO 18.0 - SYSPLEX  Report Index for PROD0001     Row 1 from 6

Line Commands:  S - Select  E - Edit Mode
     Report   Line Commands            Report   Line Commands
     INDEX    SF M  P  ME MX
Report Filtering for SF, M, and P line commands:
     Report Level  ==> 1   (1, 2, 3, or 4) Member Display ==> Y   (Y/N)
      1 - All 2 - Error & Warning 3 - Error Only 4 - Final Result Only

LINE Member    Status       Description
CMD  Name      Code
..  ++ALL      ERROR        Inspection Log
..  -REPORTS   ERROR        Compliance Documentation
****************************** Bottom of data ******************************
```

The Sysplex Report Index will link you to the Full Sysplex Inspection, each Image Inspection, and the Cross Check Inspection.

7.1.5.1 Full Sysplex Inspection

The Full Sysplex Inspection contains four sections: Heading, Processing, Cross Checking and Results. The Report is composed of the following sections:

- Sysplex Report Header

The Sysplex Report Header begins with the following message:

IFO1003I SYSPLEX INSPECTION REPORT and is followed by the name of the dataset in which the report is stored, the name of Licensee and the Image FOCUS Release Number.

```
IFO1003I SYSPLEX INSPECTION REPORT.
IFO0000I DATASET: 'IBMUSER.IFOSP.REPORT.D2021048.T0838147'.
IFO0765I LICENSEE NAME IFO0727I IMAGE FOCUS 18.0
```

- Image Inspection Results

The results of the Inspection of each individual Image in the Sysplex are displayed beginning with the message:

IFO1200I PROCESSING IMAGE NUMBER “x”

Where “x” is an automatically assigned sequential number beginning with 1 and ending the last eligibility section with “y”, the total numbers of Images defined to the Sysplex.

The message immediately following summarizes the results of the overall Image Inspection. The format is:

IFO1201I OPSYS INSPECTION COMPLETED WITH “results”

Where possible, “results” are SUCCESS, WARNINGS or ERRORS.

Sysplex Inspection Report – IMAGE Inspection

```
IFO1200I PROCESSING IMAGE NUMBER 1.
IFO1201I OPSYS INSPECTION COMPLETED WITH ERRORS.
IFO1202I SYSPLEX=ADCDPL; SYSNAME=P390; SYSCLONE=1A.
IFO1203I IPLUNIT=0300; IODFUNIT=0302; LOADPARM=0302NE...
IFO1204I PLEXCFG=ANY; GRS=TRYJOIN; ETRMODE=YES; SIMETRID=00.
```

This section also details the specific information and parameter values that will be used to determine Image Eligibility.

7.1.6 Image Eligibility

The Sysplex Report Eligibility Analysis Section for each individual Image begins with the following message:

IFO1205I CHECKING SYSPLEX ELIGIBILITY FOR IMAGE NUMBER “x”

Sysplex Inspection Report – Image Eligibility

```
IFO1206I CHECKING SYSPLEX PRIMARY COUPLE DATASET.
IFO1208I DSN=SYS1.ADCDPL.CDS01.
IFO1209I PRIMARY COUPLE DATASET VERIFIED.
IFO1221I CHECKING SYSPLEX DATASET.
IFO1234I PRIMARY DATASET=SYS1.ADCDPL.CDS01; VOL=MVS001.
IFO1234I ALTERNATE DATASET=SYS1.ADCDPL.CDS02; VOL=MVS001.
IFO1221I CHECKING ARM DATASET.
IFO1234I PRIMARY DATASET=SYS1.ADCDPL.CDS02; VOL=MVS001.
IFO1235I ALTERNATE DATASET NOT DEFINED.
IFO1221I CHECKING CFRM DATASET.
IFO1235I PRIMARY DATASET NOT DEFINED.
IFO1235I ALTERNATE DATASET NOT DEFINED.
IFO1221I CHECKING LOGR DATASET.
IFO1235I PRIMARY DATASET NOT DEFINED.
IFO1235I ALTERNATE DATASET NOT DEFINED.
IFO1221I CHECKING SFM DATASET.
IFO1235I PRIMARY DATASET NOT DEFINED.
IFO1235I ALTERNATE DATASET NOT DEFINED.
IFO1221I CHECKING WLM DATASET.
IFO1235I PRIMARY DATASET NOT DEFINED.
IFO1235I ALTERNATE DATASET NOT DEFINED.
IFO1211I CHECKING IEASYSXX GRS PARAMETER.
IFO1213I GRS=TRYJOIN IS VALID.
```

- Cross Check

The Cross Check Section begins with the following message:

```
IFO1220I CROSS CHECKING IMAGE SYSPLEX VALUES.
IFO1221I CHECKING SYSPLEX NAMES .
IFO1222I ALL SYSPLEX NAMES ARE THE SAME.
IFO1221I CHECKING SYSTEM NAMES .
IFO1225E *ERROR* SYSTEM NAMES ARE NOT UNIQUE.
IFO1221I CHECKING SYSCLONE VALUES .
IFO1227E *ERROR* SYSCLONE VALUES ARE NOT UNIQUE.
IFO1221I CHECKING PRIMARY SYSPLEX.
IFO1228I ALL DATASET NAMES AND VOLUMES MATCH.
IFO1221I CHECKING SIMETRIDS .
IFO1222I ALL SIMETRID VALUES ARE THE SAME.
IFO1297I SYSPLEX INSPECTION ENDED WITH ERRORS.
IFO1298I END OF SYSPLEX INSPECTION REPORT.
```

The start of each Cross Check is preceded with the message number

IFO1221I CHECKING…

and is immediately followed by a message detailing the results of that specific check. If an error is detected, the results message will contain an “E” and the word *ERROR*. Specific Cross Checks include:

1. Sysplex Names – Each system in a Sysplex must specify the same Sysplex Name.
2. System Names – Each system in a Sysplex must specify a unique System Name.
3. Sysclone Values – Each system in a Sysplex must specify a unique SYSCLONE value.
4. Primary Sysplex Dataset Names and Volumes – Each system in a Sysplex must specify the same Sysplex Dataset Names and Volumes.
5. SIMETRID Values – This check is made only when SIMETRID and not ETRMODE is specified. If SIMETRID is specified, each system in a Sysplex must specify the same value. If ETRMODE=NO, the system will fail the Sysplex Eligibility Test.

7.1.7 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 "Stand Alone Image Inspection" Panel displaying the Image and System names, IPL and LOAD Parms, and the date, time and results of the last Image Inspection Report.

```
                IFO 18.0 - Stand Alone Image Inspection        Row 1 to 1 of 1

Line Commands - For All Defined Images:
  S - Select  X - Inspect Now  C - Compare  N - Report Index
Line Commands - For the Running System Only:
  U - Use Host IPL Parms  Y - Dynamic System Change Audit

LINE  IMAGE     SYS     IPL   LOAD          ----- Inspection Result -----
CMD   NAME      NAME    ADDR  PARM             DATE      TIME    RESULT
..  IMAG0001  ADCD113   0A80 0A82XA         05/14/2021   00:24   WARNING
****************************** 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).

7.1.8 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.

```
                IFO 18.0 - Define Image for Inspection

 IMAGE NAME:       ==> IMAG0001     (A User Assigned Name - up to eight
        Characters, will default to MVS System Name when it is found)

 MVS IPL INPUT:
  MVS IPL ADDRESS ==> 0A80          (Four Digits)
  MVS LOAD PARM   ==> 0A82XA        (Up to Eight Characters)
  SYSCAT SUFFIX   ==>               (IEA347A Specify Master Catalog Parameters)
  IEASYS00 SUFFIX ==>               (IEA101A Specify System Parameters)
  ADD'L COMMNDxx  ==>               (See Image FOCUS Documentation)
 FILTERING INPUT:
  HARDWARE NAME   ==>               (Processor Name)
  LPAR NAME       ==>               (LPAR Name)
  VM USERID       ==>               (MVS VM UserID)
 OPTIONAL PARMLIB:                  (Concatenated before LOADxx Parmlibs)
  DATASET NAME    ==>

 INSPECTION OPTIONS:  ---System--- ----Subsystems----- -Supplemental- --Custom--
  INSPECTOR NAMES      OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
  SELECTION (Y/N) ==>    Y     Y    N    N    N    N    N    N    N    N    N

                           (Press ENTER to Begin Inspection)
 COMMAND ===>
```

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.

7.1.8.1 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.

Take Care:

When using ADD'L PARMLIB INPUT, the additional parmlib dataset MUST, in fact, be allocated on the SYSRES Volume.

7.1.8.2 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.

7.1.8.3 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.

```
                IFO 18.0 - Stored Package - Compare          Row 1 to 11 of 11

   Image Package Index Dataset: IFO.TEST.PACKAGE.INDEX
                         VOLSER: VPWRKI

 Using the Selection List that follows, select a System Image by Name.
 Then from the displayed Panel, by Date to begin a Compare Operations.

Line Command:  S - Select a System Image

CMD   IMAGE   VOLUME    DATE     DSNAME
..    IMAGWEBD VPWRKG             IFO.TEST.PACKAGE.IMAGWEBD
..    IMAGWEBE VPWRKG             IFO.TEST.PACKAGE.IMAGWEBE
..    IMAG0001 VPWRKG 2021/02/11  IFO.TEST.PACKAGE.IMAG0001
..    IMAG0002 VPWRKG             IFO.TEST.PACKAGE.IMAG0002
..    IMAG0003 VPWRKG             IFO.TEST.PACKAGE.IMAG0003
..    IMAG0005 VPWRKG             IFO.TEST.PACKAGE.IMAG0005
..    IMAG0007 VPWRKG             IFO.TEST.PACKAGE.IMAG0007
..    IMAG001A VPWRKG             IFO.TEST.PACKAGE.IMAG001A
..    PROD0011 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0011
..    PROD0012 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.PROD0012
..    STAGED11 VPWRKG 2021/01/22  IFO.TEST.PACKAGE.STAGED11
****************************** 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.

```
                IFO 18.0 - Select Stored Package              Row 1 to 12 of 12
COMMAND ===>                                                  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 -----------
 ..    07/21/21    E     IFO.IFOTBG.REPORT.D2021203.T1337229
 ..    07/21/21    E     IFO.IFOTBG.REPORT.D2021203.T1626101
 ..    07/22/21    E     IFO.IFOTBG.REPORT.D2021204.T1555024
 ..    07/23/21    E     IFO.IFOTBG.REPORT.D2021205.T1624090
 ..    07/30/21    E     IFO.IFOTBG.REPORT.D2021212.T1635241
 ..    08/06/21    E     IFO.IFOTBG.REPORT.D2021219.T1121305
 ..    08/07/21    E     IFO.IFOTBG.REPORT.D2021220.T1127271
 ..    08/08/21    E     IFO.IFOTBG.REPORT.D2021221.T1134020
 ..    08/12/21    E     IFO.IFOTBG.REPORT.D2021225.T1204333
 ..    08/13/21    E     IFO.IFOTBG.REPORT.D2021226.T1049394
 ..    08/15/21    E     IFO.IFOTBG.REPORT.D2021228.T1104356
 ..    08/19/21    E     IFO.IFOTBG.REPORT.D2021232.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 IPL Parms 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.

```
               IFO 18.0 - Compare Confirmation

 Selected Package DSN: IFO.TEST.PACKAGE.IMAG0001
                  VOL: LVWRKB

Now confirm the IPL Parms of your selections. If the old and New
are different systems this compare function may not detect change.

 ----- Old IPL Parameters -----   ----- New IPL Parameters -----

 DATE:                 N/A         DATE:                 05/14/21
 IMAGE NAME:           IMAG0001    IMAGE NAME:           IMAG0001
 IPL ADDRESS:          0A80        IPL ADDRESS:          0A80
 LOAD PARM:            0A82XA..    LOAD PARM:            0A82XA..
 SYSCATxx SUFFIX:                  SYSCATxx SUFFIX:
 IEASYSxx SUFFIX:                  IEASYSxx SUFFIX:
 HWNAME:                           HWNAME:
 LPARNAME:                         LPARNAME:
 VMUSERID:                         VMUSERID:

Now Press Enter to begin comparing the Old and New IPL Parameters.
```

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.

```
               IFO 18.0 - Image Comparison Summary          Row 1 to 15 of 38

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

CMD  MEMBER         STATUS      VOLUME   DSNAME
..   LOADXA           SAME       ZDSYS1   SYS1.IPLPARM
..   NUCLST00         SAME       ZDSYS1   SYS1.IPLPARM
..   IEASYMXA         SAME       ZDSYS1   USER.PARMLIB
..   IEASYS00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   IEASYSWS  * DIFFERENT *     ZDSYS1   USER.PARMLIB
..   IEASYSXA         SAME       ZDSYS1   USER.PARMLIB
..   IEASVC00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   PROG01    * DIFFERENT *     ZDSYS1   USER.PARMLIB
..   IEAFIX00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   IEALPA00         SAME       ZDSYS1   USER.PARMLIB
..   IEAPAK00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   LPALST01         SAME       ZDSYS1   USER.PARMLIB
..   DIAG00           SAME       ZDSYS1   USER.PARMLIB
..   IEAABD00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   IEADMP00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   IEADMR00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   COUPLEX1         SAME       ZDSYS1   USER.PARMLIB
..   GRSCNF00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   GRSRNLSJ  * DIFFERENT *     ZDSYS1   USER.PARMLIB
..   IGDSMS00         SAME       ZDSYS1   USER.PARMLIB
..   IFAPRD00         SAME       ZDSYS1   USER.PARMLIB
..   IFAPRD01         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   CONSOLXA         SAME       ZDSYS1   USER.PARMLIB
..   CLOCKX1          SAME       ZDSYS1   USER.PARMLIB
..   IEFSSN00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   MSTJCL00         SAME       ZDSYS1   USER.PARMLIB
..   SCHED00          SAME       ZDRES1   ADCD.Z113.PARMLIB
..   VATLST00         SAME       ZDSYS1   USER.PARMLIB
..   BPXPRMCS  * DIFFERENT *     ZDSYS1   USER.PARMLIB
..   BPXPRMU1  *  MISSING  *     ZDSYS1   USER.PARMLIB
..   IEACMD00         SAME       ZDSYS1   USER.PARMLIB
..   COMMNDXA         SAME       ZDSYS1   USER.PARMLIB
..   IKJTSO00         SAME       ZDSYS1   USER.PARMLIB
..   SMFPRM00         SAME       ZDSYS1   USER.PARMLIB
..   IEAAPP00         SAME       ZDRES1   ADCD.Z113.PARMLIB
..   CEAPRM00         SAME       ZDRES1   SYS1.PARMLIB
..   AXR00     * DIFFERENT *     ZDSYS1   USER.PARMLIB
..   AUTOR00   * DIFFERENT *     ZDRES1   SYS1.PARMLIB
****************************** Bottom of data ********************************
```

The compare results will be one of the following conditions:

1. SAME -New and Old members are the same
2. DIFFERENT -New and Old members are different
3. MISSING -Members don't exist in both packages
4. 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    SYS15134.T071408.RA000.TESTS.R0105753      Line 00000000 Col 001 080
******************************** Top of Data ********************************
  ISRSUPC   -   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS15134.T071408.RA000.TESTS.R0105752(LOADXA)           OLD: SYS15134.T0714

                      LINE COMPARE SUMMARY AND STATISTICS



       9 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
       9 NEW FILE LINES PROCESSED
       9 OLD FILE LINES PROCESSED

LISTING-TYPE = DELTA      COMPARE-COLUMNS =    1:72        LONGEST-LINE = 80
PROCESS OPTIONS USED: SEQ(DEFAULT)

****************************** 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 LNKLst, 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.

```
               IFO 18.0 - Dynamic Change Audit Summary       Row 1 to 5 of 5

 Line Commands:
   S - Compare Details BN - Active Configuration BO - Static Configuration

 CMD  TARGETS      STATUS           COMPARE POINTS
 ..   LNKLST    * DIFFERENT *          *LNKLST*
 ..   APFLST    * DIFFERENT *          *APFLST*
 ..   LPALST    * DIFFERENT *          *DYNLPA*
 ..   SYMLST       SAME                *SYMLST*
 ..   BPXLST       SAME                *BPXPRM*
 ***************************** 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    SYS15134.T071649.RA000.TESTS.R0105757      Line 00000000 Col 001 080
******************************** Top of Data ********************************
  ISRSUPC   -   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS15134.T071649.RA000.TESTS.R0105756(LNKLST)           OLD: SYS15134.T0716

                     LISTING OUTPUT SECTION (LINE COMPARE)

ID       SOURCE LINES
    ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+-

I - IFO.PLAY.LOAD                                  LVWRKD
  ISRSUPC   -   MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF FOR z/OS
NEW: SYS15134.T071649.RA000.TESTS.R0105756(LNKLST)           OLD: SYS15134.T0716

                       LINE COMPARE SUMMARY AND STATISTICS

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

LISTING-TYPE = DELTA      COMPARE-COLUMNS =    1:72       LONGEST-LINE = 80
PROCESS OPTIONS USED: SEQ(DEFAULT)

****************************** 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).

7.1.8.4 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. The most severe problems are shown at the top of the Index.

7.1.9 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, that is, the system on which Image FOCUS is installed.

7.1.9.1 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.

7.1.10 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.

7.1.11 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.

7.1.12 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.

7.1.13 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.

7.1.14 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

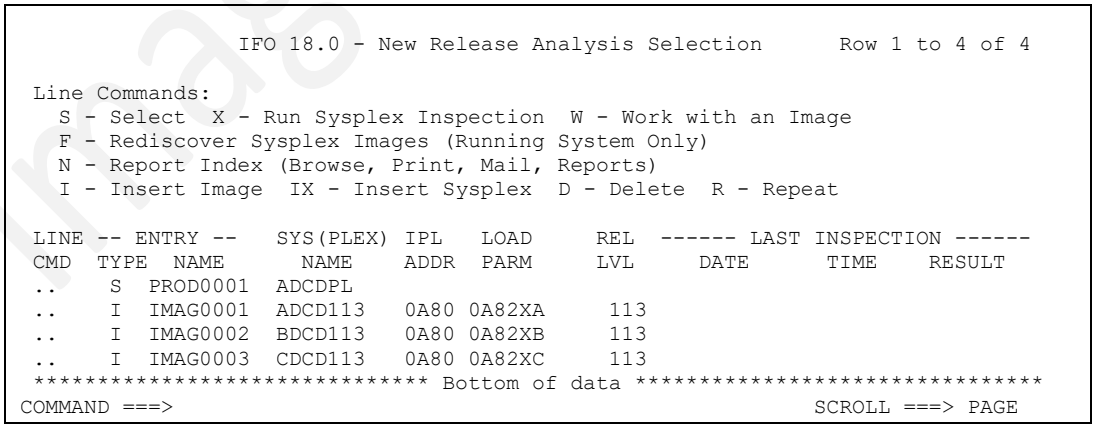
In order to take full advantage of the latest in processing power and software function, it is often necessary to upgrade to a new release of the Operating System and/or its Subsystems. Image FOCUS is designed and programmed to “Understand” these Release Changes and their potential impact on the Sysplex/Image 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 V3R1.

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, select the “Releases” option from the Workbench Inspection Selection menu.



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.

```
               IFO 18.0 - Define Image for Release Analysis

IMAGE NAME:      ==> IMAG0005     (A User Assigned Name - up to eight
       Characters, will default to MVS System Name when it is found)
MVS IPL INPUT:
 MVS IPL ADDRESS ==> 0A80         (Four Digits)
 MVS LOAD PARM   ==> 0A83X1       (Up to Eight Characters)
 SYSCAT SUFFIX   ==>              (IEA347A Specify Master Catalog Parameters)
 IEASYS00 SUFFIX ==>              (IEA101A Specify System Parameters)
 ADD'L COMMNDxx  ==> IF           (See Image FOCUS Documentation)
FILTERING INPUT:
 HARDWARE NAME   ==>              (Processor Name)
 LPAR NAME       ==>              (LPAR Name)
 VM USERID       ==> ZOS23E       (MVS VM UserID)
INSPECTION OPTIONS:  ---System--- ----Subsystems----- -Supplemental- --Custom--
 INSPECTOR NAMES      OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
 SELECTION       ==>    Y     Y    Y    N    Y    N    N    N    N    N    N
 RELEASE LEVEL   ==>    205   Y    205  205  205  202  202  202  202  202  202
 WEB DELIVERY    ==>    0    (For V1R13 ONLY - 1=Enabled 0=Disabled)
RELEASE OPTIONS:  107=V1R7  108=V1R8 109=V1R9 110=V1R10 111=V1R11 112=V1R12
                  113=V1R13 201=V2R1 202=V2R2 203=V2R3  204=V2R4  205=V2R5
                  301=V3R1
   (When Release Level is BLANK Image Defaults to the Sysplex Release Level)
```

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.

7.2.2.4 Selecting a Sysplex

To select a Sysplex, place an "S" next to its name and press enter. This action will immediately display the Global Release Analysis Settings.

```
               IFO 18.0 - Global Release Analysis Settings

PRODNAME: PROD0001

Inspection Alternatives:          -----Global Image Definition Options-----
 Option in Use  ==> D             O - Temporary Image Definition Overrides
                                  D - Defaults for All New Image Definitions
                                  I - Ignored by All New Image Definitions

Processing Options:   OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
 Inspection     ==>     Y     Y    N    N    N    N    N    N    N    N    N
 Release Level  ==>     000   Y    000  000  000  000  000  000  000  000  000

           ------------Release Level Analysis Options------------
              106=V1R6  107=V1R7  108=V1R8  109=V1R9 110=V1R10 111=V1R11
              112=V1R12 113=V1R13 201=V2R1  202=V2R2 203=V2R3  204=V2R4 205=V2R5
              301=V3R1
```

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 "Working with Single Image" Panel, showing the Image and System names, IPL and LOAD Parms and the date, time and results of the last Image Inspection Report.

```
               IFO 18.0 - Working with Single Image          Row 1 to 1 of 1

Line Commands:
  S - Select  X - Inspect Now  U - Use Host IPL Parms
  N - Report Index (Browse, Print, Mail, Reports)

LINE  IMAGE     SYS      IPL   LOAD          ----- Inspection Result -----
CMD   NAME      NAME     ADDR  PARM            DATE      TIME     RESULT
..  IMAG0001  ADCD113   0A80 0A82XA
****************************** 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.

```
                IFO 18.0 - Define Image for Release Analysis

 IMAGE NAME:      ==> IMAG0001     (A User Assigned Name - up to eight
        Characters, will default to MVS System Name when it is found)
 MVS IPL INPUT:
  MVS IPL ADDRESS ==> 0A80         (Four Digits)
  MVS LOAD PARM   ==> 0A82XA       (Up to Eight Characters)
  SYSCAT SUFFIX   ==>              (IEA347A Specify Master Catalog Parameters)
  IEASYS00 SUFFIX ==>              (IEA101A Specify System Parameters)
  ADD'L COMMNDxx  ==>              (See Image FOCUS Documentation)
 FILTERING INPUT:
  HARDWARE NAME   ==>              (Processor Name)
  LPAR NAME       ==>              (LPAR Name)
  VM USERID       ==>              (MVS VM UserID)
 INSPECTION OPTIONS:  ---System--- ----Subsystems----- -Supplemental- --Custom--
  INSPECTOR NAMES      OPSYS DSRPT JESx VTAM TCPS CICS LOAD MBRS CSDS CST1 CST2
  SELECTION       ==>    Y     Y    N    N    N    N    N    N    N    N    N
  RELEASE LEVEL   ==>    113   Y    113  113  113  113  113  113  113  113  113
  WEB DELIVERY    ==>         (For V1R13 ONLY - 1=Enabled 0=Disabled)
 RELEASE OPTIONS:  107=V1R7  108=V1R8 109=V1R9 110=V1R10 111=V1R11 112=V1R12
 113=V2R13 201=V2R1 202=V2R2 203=V2R3 204=V2R4 205=V2R5  301=V3R1
(Default = Running System Level

    (When Release Level is BLANK Image Defaults to the Sysplex Release Level)
 COMMAND ===>
```

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 User Guide in the Section titled Sysplex/Image Inspection - Working with an Image.

7.3 MakeCopy

The "MakeCopy" 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. To access this panel, from the Workbench Inspection Selection menu select the "Settings" option, and then the “MakeCopy” option. This will display the MakeCopy Controlled Definitions panel.

```
               IFO 18.0 - MakeCopy Controlled Definitions     Row 1 to 8 of 8

  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  ADCDPL
..    I  IMAG0001  ADCD113   0A80
..    I  IMAG0002  BDCD113   0A80
..    I  IMAG0003  CDCD113   0A80
..                                    S  PROD0001  ADCDPL
..                                    I  IMAG0001  ADCD113   0A80
..                                    I  IMAG0002  BDCD113   0A80
..                                    I  IMAG0003  CDCD113   0A80
****************************** 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, select the “CmpInsps” option. This action will display the Single Component Inspection screen. This screen displays a list of defined Component Inspectors.

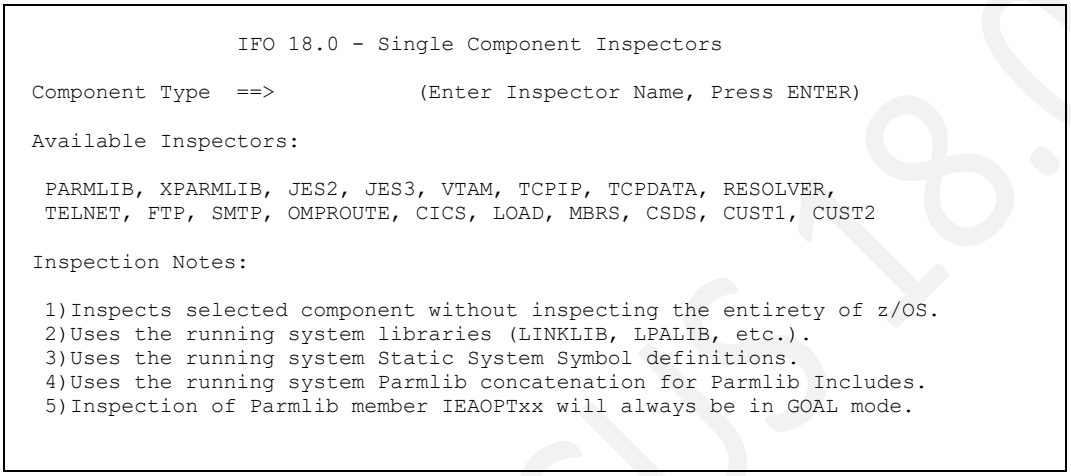
7.4.1.1 Inspection Notes

- 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.



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 All Workbench Inspection Reports menu. Select the "WorkRpts" option from the main Workbench menu to access it. 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 Available Inspection Reports screen.

```
                IFO 18.0 - Workbench Report Selection

   I   Inspects  ..  - Sysplex and/or Image Inspection      Userid   - RFAUL1
                                                           Time     - 07:54
   N   Releases  ..  - New Release Analysis Inspections     Sysplex  - ADCDPL
                                                           System   - ADCD113
   C   CmpInsps  ..  - Single/Unit Component Inspections    ApplId   - TEST
                                                            Image Focus 18.0
   O   OneImage  ..  - Stand Alone Image Inspections        Patch Level P0









   X   Exit         - Return to the TCE Primary Menu

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

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.

```
                IFO 18.0 - Available Inspection Reports        Row 1 to 3 of 3
                              Workbench Sysplex
Line Commands:
  S - Select Report    D - Delete Report    DF - Delete Force
                                                      DATA SET NAME
CMD DATE       TIME   NAME     CLUST  ITEMS RESULT  RFAUL1.IFOSP.REPORT.
..  05/14/2021 06:42  PROD0001  Y        4  ERROR      D2021134.T0642158
..  05/14/2021 00:15  PROD0001  Y        4  ERROR      D2021134.T0015232
..  05/01/2021 09:28  PROD0001  Y        4  WARNING    D2021121.T0928567
****************************** 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 Report Allocation Specifications

Workbench Foreground Processes will generate Inspection Reports. The location and number of these reports is controlled using the Inspection Workbench Settings panel. To access it, from the Workbench Inspection Selection menu, select the “Settings” option and then the “Allocate” option.

```
                IFO 18.0 - Inspection Workbench Settings

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 ==> IXPORT
  Reports to keep ==> 10
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 ==> 10
Single Image Report Dataset:           Allocation for Single Image Reports and
 1st  Level Index ==> &SYSPREF          Report processing working files:
 2nd  Level Index ==> IFO               CYLs Primary/Secondary ==> 1    / 1
 3rd  Level Index ==> REPORT
  Reports to keep ==> 10
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 ==> 10

COMMAND ===>                                              SCROLL ===> PAGE
```

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. Overtype 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. Overtype the default values to your individual or site standards, being certain to use only valid dataset naming characters.

7.7 Workbench Mail Settings

To access the Workbench Mail Settings, from the Workbench Inspection Selection menu, select the “Settings” option and then the “EmlNotes” option. This action will display the Workbench Email Notification panel.

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.

7.7.1 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.

```
                IFO 18.0 - Workbench Email Notification

Server Settings:
   Mail Server     (Name or IP address of SMTP server)
    ===> 173.203.2.36
   From            (Email address)
    ===> RKF@NEWERA.COM
   Primary
   Destination     (Email address)
    ===> SUPPORT@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 Mail Settings Y/N)
    ===> N
```

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

7.7.1.1 Mail Server

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

7.7.1.2 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.

7.7.1.3 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.

7.7.1.4 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.

7.7.1.5 TCP/IP

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

7.7.1.6 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.

7.7.1.7 SMTP Port

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

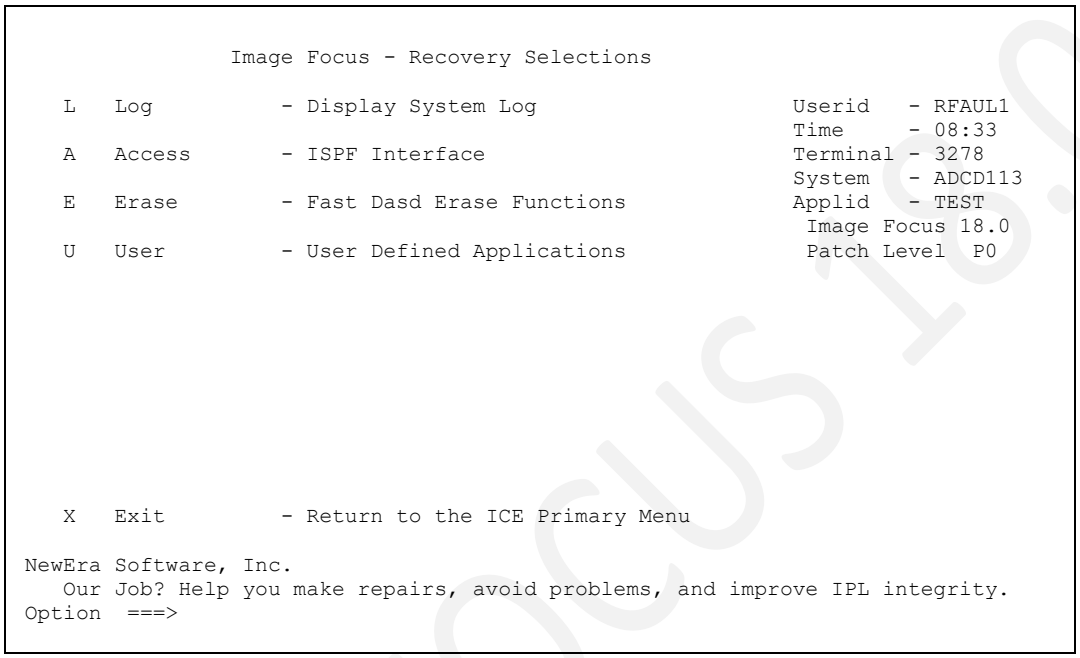
7.7.2 Selecting and Sending Mail

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 Recovery View

The Recovery View gives you access to critical system resources when JES, VTAM, RACF, TCP/IP and/or TSO are not available. In addition, the related Recovery Environment ensures that you retain access to Image FOCUS for problem analysis, repair and recovery under adverse conditions.



8.1 Displaying the System Log

Selecting the Log Function "L" from the Menu will display Master Trace Data. This data is the source of the information used to build the System Log under normal operations. When JES 2 or 3 is not functional, the System Log is unavailable for system analysis. This notwithstanding, the most recent entries (limited by available storage) are in memory and accessible by Image FOCUS. This Master Trace Data is formatted and displayed. The Display will generally exceed the width of the standard 3270 terminal. Enter "Right" on the command line to scroll to view additional information.

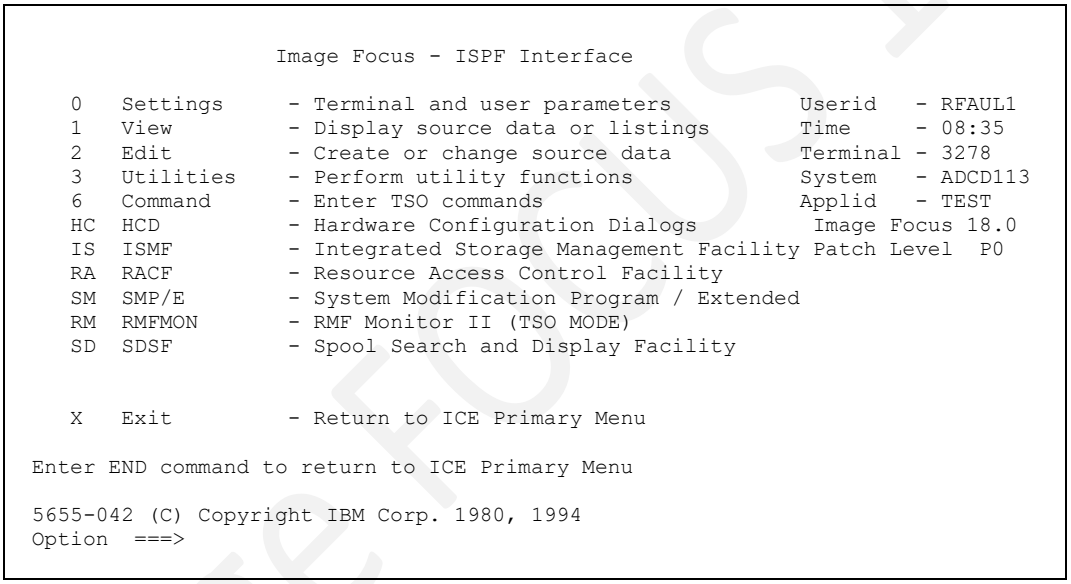
System Log Display (Partial)

```
 BROWSE    MASTER-TRACE-DATA                          Line 00000000 Col 001 080
 Command ===>                                           Scroll ===> PAGE
******************************** Top of Data ********************************
ER                                      741 00000090  $HASP003           SPEC
MR0000000 NEZ1     08242 07:57:22.01 INTERNAL 00000090  $HASP893 VOLUME(VPSPON)
DR                                      742 00000090  $HASP893 VOLUME(VPSPON)
ER                                      742 00000090  $HASP893
MR0000000 NEZ1     08242 07:57:22.01 INTERNAL 00000090  $HASP893 VOLUME(VPSPOL)
DR                                      743 00000090  $HASP893 VOLUME(VPSPOL)
ER                                      743 00000090  $HASP893
NR0000000 NEZ1     08242 07:57:22.01 INTERNAL 00000090  $HASP646 17.9499 PERCENT
M 4040000 NEZ1     08242 07:57:24.43 STC05147 00000090  HZS0002E CHECK(IBMCNZ,CN
D                                       745 00000090  CNZHF0010E System consol
E                                       745 00000090  mode.
M 4040000 NEZ1     08242 07:57:24.44 STC05147 00000090 *HZS0003E CHECK(IBMXCF,XC
E                                       746 00000090  IXCH0240E Multiple prima
NC0000000 NEZ1     08242 08:00:00.30 INTERNAL 00000290  S SMFDUMPS,MAN='SYS1.S0W
N 0000000 NEZ1     08242 08:00:00.30          00000290  IEF196I SMF SWITCH CAUSE
N C020000 NEZ1     08242 08:00:00.30          00000090  SMF SWITCH CAUSED COMMAN
M 4000000 NEZ1     08242 08:00:00.30          00000090  IEE388I SMF NOW RECORDIN
E                                       750 00000090                  011.00.00
N 8000000 NEZ1     08242 08:00:00.31          00000090 *IEE985A SMF IS PROCESSIN
N 0200000 NEZ1     08242 08:00:00.40 STC05522 00000281  $HASP100 SMFDUMPS ON STC
N 0020000 NEZ1     08242 08:00:01.09 STC05522 00000290  IEF695I START SMFDUMPS W
N 4000000 NEZ1     08242 08:00:01.13 STC05522 00000090  $HASP373 SMFDUMPS STARTE
N 4000000 NEZ1     08242 08:00:04.49 STC05522 00000090  $HASP395 SMFDUMPS ENDED
N 0000000 NEZ1     08242 08:00:04.53          00000290  IEA989I SLIP TRAP ID=X33
N 0000000 NEZ1     08242 08:01:44.65          00000290  IEE252I MEMBER BPXPRMVN
N 0000000 NEZ1     08242 08:01:44.66          00000290  IEE252I MEMBER BPXPRM65
N 0000000 NEZ1     08242 08:01:44.81          00000290  IEE252I MEMBER BPXPRM61
N 0000000 NEZ1     08242 08:01:44.90          00000290  IEE252I MEMBER BPXPRMMS
N 0000000 NEZ1     08242 08:01:44.93          00000290  IEE252I MEMBER BPXPRMSV
N 0000000 NEZ1     08242 08:01:45.90          00000290  IEE252I MEMBER BPXPRMFS
N 0000000 NEZ1     08242 08:01:45.92          00000290  IEE252I MEMBER BPXPRMOM
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   VENDOR
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   VOL SE
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   SVTSC.
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   VOL SE
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   LVL0.P
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   VOL SE
N 0000000 NEZ1     08242 08:01:46.33          00000290  IEF196I IEF285I   SYS1.P
```

8.2 Accessing the ISPF Interface

Image FOCUS provides access to ISPF under adverse system conditions when the major MVS subsystems (TSO, JES or VTAM) are, individually or collectively, not functional. This interface supports the common ISPF Options: Settings, View, Edit, Utilities and Commands and certain IBM Program Products:

- HCD (Hardware Configuration Dialog),
- ISMF (Integrated Storage Management Facility),
- RACF (Resource Access Control Facility),
- SMP/E (System Modification Program / Extended),
- RMF II (in TSO mode), and
- SDSF (System Data Set Facility).



8.2.1 Starting in ISPF Mode

Products that run in ISPF mode require certain datasets to be concatenated to the ISPF datasets to function properly. In a real TSO environment, this is done by updating the TSO LOGON procedure. In the Image FOCUS environment, use the Image FOCUS JCL procedure to concatenate the product datasets. You implement the Image FOCUS JCL procedure as follows:

1. The Image FOCUS JCL procedure contains sample DD statements (as comments) for all of the System Management products supported by Image FOCUS.

2. Since actual dataset names and products will vary from location to location, you will need to implement the supported products by performing these steps for each product you wish to function in the Image FOCUS environment:

- Use the correct dataset name for each DD statement for each product.
- Change the comment(s) into a real DD statement(s).

IFOR uses NSEDSN00 to allocate datasets.

8.2.2 Starting in TSO Mode

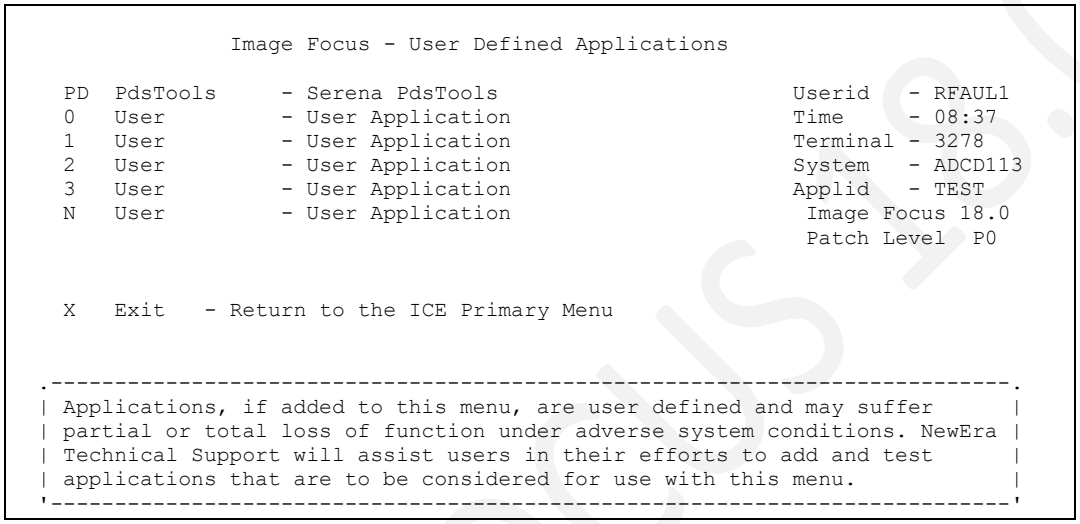
No special action should be required to use RMFMON under Image FOCUS. Please note that RMF Monitor II is supported in TSO (non-ISPF) mode and because this support is made available under varying system conditions, it may result in access only to partial product functionality. Applications that are invoked in TSO mode use minimal ISPF services; therefore, certain services and functions provided by these products may not be available. Actual product functionally is totally dependent on the actual operating environment at the time of execution.

Loss of functionality will also occur if SDSF is used when JES2 is down. SDSF is dependent on JES2 and will not function normally without it being active. However, SDSF will function normally in the Image FOCUS Environment when JES2 is up but TSO is unavailable.

RMF Monitor II commands are supported. Certain commands (e.g., SENQ -SYSTEM ENQUEUE CONTENTION) rely on JES2 for services. If JES2 is down, these commands will not operate as expected. If JES2 is functional, these commands will function as if under normal operation.

8.3 User Defined Applications

The key advantage to adding applications to the User Defined Application Menu is that they will be generally available under the most adverse of system conditions. Specifically, applications added inherit the attributes of the Image FOCUS address space, access to ISPF is ensured, and the need for a dedicated console (if any) is eliminated as all applications running in the Image FOCUS environment share a single console.



To add an application, users must identify application candidates that will run in the Image FOCUS environment and then add them.

8.3.1 Application Candidates

Typical candidates are System Management Software products that are often used to either monitor the performance of the system or identify and fix problems. The Menu may include any number of applications, including CLIST and REXX applications. Once an application candidate has been identified, it must be tested in the Image FOCUS environment, using the Image FOCUS Application Test Facility.

8.3.2 Application Test Facility

As a first step, determine if an application will run in a “Native MODE” without ISPF. As the second step, test the application under ISPF using Option 6 on the Image FOCUS Primary Menu. The COMMAND field on the Image FOCUS LOGON Screen is used for testing specific applications as Native Applications in the Image FOCUS address space. During normal operations, this field is locked; for testing purposes, it is unlocked by using PFK 12.

Testing in this mode has several advantages: the test is isolated in the Image FOCUS address space and will not affect other system operations, the tested application will inherit the Image FOCUS address space characteristics, terminal communications are under the control of Image FOCUS, and applications are supported in full-screen mode.

When you do not want to start ISPF, you can also start Image FOCUS supported applications from this field by entering the commands.

Once an application is started, care must be taken when exiting. Exiting an application will also terminate the Image FOCUS address space. Under adverse system conditions, you may not be able to restart a new address space. This is why the Application Test Facility mode of operation is recommended only for testing. It is not recommended for use with tools that may be required in an actual repair or recovery situation.

8.3.3 Testing in Native Mode

To conduct a test, start a new Image FOCUS address space. When the LOGON Screen appears, press the PFK 12 key. With the Command Field now unlocked, you may enter a command that should start the application that you wish to test. Because of varying system conditions, it is difficult to state with certainty what will appear or happen when you press RETURN. However, in most cases, the application's Main Menu will appear. If the application's Main Menu does not appear, or the application is not available or has not been defined to Image FOCUS, you may receive an error message or the Image FOCUS LOGON screen may be refreshed as blank. Should this happen, restart the Image FOCUS address space and retry the command or proceed to testing under Option 6 of the Image FOCUS Primary Menu (for a test under ISPF). NOTE: Image FOCUS does not restrict input in the COMMAND Field on the LOGON screen. (Exception: input into this field should follow the same restrictions followed when using ISPF: Option 6.) NewEra intends this field for general use when testing an application candidate in NATIVE MODE in a dedicated Image FOCUS address space. This feature is for running non-ISPF full screen applications. The two standard ones that work are RMFMON and SDSF. We encourage you to try other applications and to share your experiences with our Technical Support Staff.

8.3.4 Testing under ISPF

If the Native Mode test was a success, you will want to continue your test under the Image FOCUS Primary Menu.

To test under ISPF (restart the Image FOCUS address space, if needed), proceed through the startup process and the LOGON Menu to the Image FOCUS Primary Menu. From this Menu, Select option 6 - Enter TSO Commands and the command that will start the candidate application. Note any differences in the behavior of the application. If the application functions as expected, it is a valid candidate for addition to the Image FOCUS User Defined Application Menu.

If the application does not function appropriately, you may have encountered a program error as a result of adverse system conditions or an error in Image FOCUS. In any case, please contact NewEra Technical Support at support@newera.com.

8.3.5 Adding an Application

Once an application has been tested in Native or ISPF mode and it has been determined that it will function to the site's satisfaction, it can be added to the User Defined Application Menu.

8.3.6 Modifying the User Menu

To add an application to the User Defined Application Menu, modify the NSE@APPL panel contained on the Image FOCUS Distribution Download. Care should be taken to adequately test the modifications BEFORE they are needed in a repair or recovery situation.

8.3.7 Operational Considerations

The primary advantage of adding an application to the User Defined Application Menu is the retention of the Image FOCUS address space when the application is terminated.

To ensure continued availability of the Image FOCUS environment, applications used in Repair and Recovery operations, which were added to the User Defined Application Menu, should be accessed only from that Menu.

8.3.8 Operational Advantages

1. The number of dedicated consoles can be reduced.
2. The demand on system resources is reduced as supported applications are started and stopped as needed.
3. Applications are controlled from a common point.
4. Exit and re-entry to an application is supported, even during adverse system conditions, as long as the Image FOCUS address space remains active.
5. All applications share common passwords and authorization.
6. Applications are supported in full-screen or line mode.
7. Access to ISPF is ensured.
8. Applications inherit the Image FOCUS address space characteristics, e.g., all would become non-swappable if the Image FOCUS address is configured as non-swappable.
9. Communications are ensured during TSO and/or VTAM outages.

9 Definitions & Settings

IFO 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. To access this panel, from the ICE Main Menu, select the “Defining” option.

```
                IFO 18.0 - Definitions/Migration/Control Aids

   C   CustDefs  .. - Define Custom Inspectors/Apps          Userid    - RFAUL1
                                                            Time      - 08:41
   M   Migrates  .. - Migrate Definitions & Settings        Sysplex   - ADCDPL
                                                            System    - ADCD113
   I   ICEAdmin  .. - Set Admin/User Access Controls        ApplId    - TEST
                                                             Image Focus 18.0
                                                             Patch Level P0




   X   Exit         - Return to the TCE Primary Menu

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

9.1 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, select the “CustDefs” option from the Definitions/Migration/Control Aids menu. This action will display the Defined Inspectors/Applications menu.

```
              IFO 18.0 - Defined Inspectors/Applications

   I   Inspect  ..  - Custom Inspection Interface           Userid    - RFAUL1
                                                            Time      - 08:53
   A   UserApp  ..  - Custom Application Interface          Sysplex   - ADCDPL
                                                            System    - ADCD113
                                                            ApplId    - TEST
                                                             Image Focus 18.0
                                                             Patch Level P0



   X   Exit         - Return to the TCE Primary Menu

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

9.1.1 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.

1. A parm field from the JCL is passed to an inspector, and
2. An “Include member from the system PARMLIB concatenation”.

9.1.1.1 Custom Inspector Selection

Selecting option ‘I’ from the the Defined Inspectors/Applications Menu will display the Custom Inspectors Selection Screen.

```
               IFO 18.0 - Custom Inspector Selection        Row 1 to 5 of 5

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

LINE  INSPECTOR    STATUS
CMD   NAME                    ------------ TITLE -------------
..  LOAD           ENABLED     LOAD MODULE INSPECTOR
..  MBRS           ENABLED     PDS MEMBER INSPECTOR
..  CSDS           ENABLED     CICS CSD 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.

9.1.2 Define Custom Inspection

Define Custom Inspection Screen

```
                  Image Focus Define Custom Inspection

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.

9.1.3 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.

9.1.3.1 Custom Report Selection

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

```
               IFO 18.0 - Custom Application Selection      Row 1 to 12 of 12

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

LINE  APPL      INDEX     REXX   STATUS
CMD   NAME      CMD       PGM                ------------ TITLE -------------
..  INDEX        SF     NSIMNDE  ENABLED     REPORT INDEX TOOLS
..  CEDIT        HS     NSIMCEA  ENABLED     CONTROL EDITOR TOOLS
..  ISNBASE      IB     ISNBASE  ENABLED     ISNBASE
..  ISNEDIT      ED     ISNEDIT  ENABLED     ISNEDIT
..  ISNDASD      DA     ISNDASD  ENABLED     ISNDASD
..  NSIMVUE      IV     NSIMVUE  ENABLED     IPLCHECK VIEWER
..  CUST1                        DISABLED
..  CUST2                        DISABLED
..  CUST3                        DISABLED
..  CUST4                        DISABLED
..  CUST5                        DISABLED
..  CUST6                        DISABLED
******************************* Bottom of data ********************************
```

9.1.3.2 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 Defining a 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.

9.1.3.3 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.

```
                IFO 18.0 - Defining a Custom Application

APPLICATION IDENTIFICATION:
 Name    ==> ISNEDIT      (Name of Application)
 Title   ==> ISNEDIT                          (1 to 32 Characters)
APPICATION PROGRAM:
 Line Command Characters          (2 Character Line Commands)
        ==> ED  ==> HA  ==> HR  ==> EN  ==>     ==>
 Rexx Program Name  ==> ISNEDIT   (7 Characters)
 Rexx Program Resides in:         (A Fully Qualified DataSet Name)
   Data Set Name  ==>
   Volume Serial  ==>             (Optional)
APPLICATION REPORTS:
 Indexed Report Member Select, extracts full report  Y   (Y/N)
  Indexed Report Members Allowed:
    ==> *           ==>             ==>             ==>
    ==>             ==>             ==>             ==>
    ==>             ==>             ==>             ==>
 Inspection Reports Allowed:  (Y/N)
  Workbench:  Sysplex       ==> Y       Sysplex Release  ==> N
              Single Image  ==> Y       Component        ==> N
  Controlled: Sysplex       ==> N
```

9.1.4 Application Interface Examples

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

9.1.4.1 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 *******/
```

9.1.4.2 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.

```
PARSE PULL REPDSN REPDDN REPMEM REPIFRL REPTITLE REPCMD REPTYPE REPRSLT REPSEG .
```

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.

```
/*********************************************************************/
/****     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                          */
/*********************************************************************/
```

9.1.5 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.

9.2 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:

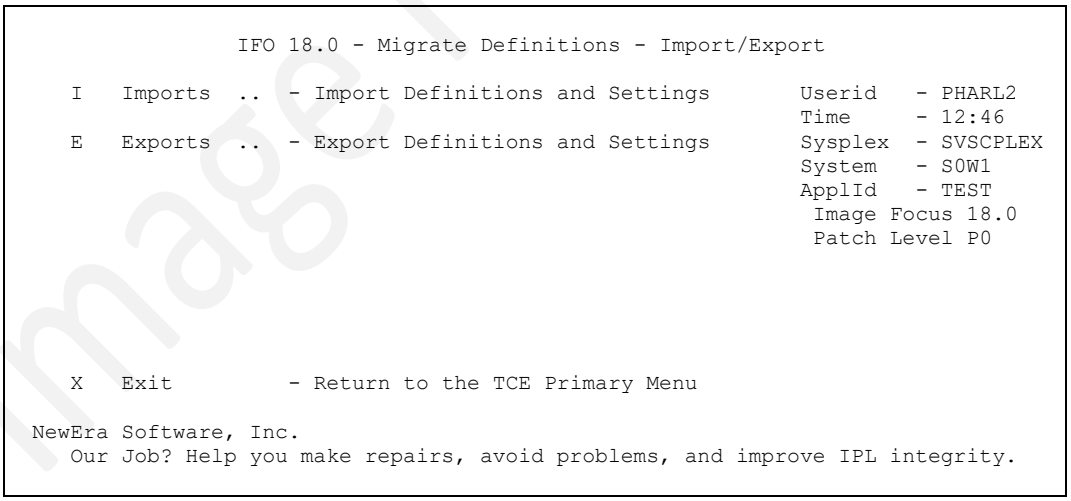
1. Migrate Background and Foreground data when using the Image FOCUS IFOR Recovery mode of operation;
2. Migrate individual user data tables when using the Image FOCUS IFOM/IFOS Multi-user mode of operation.

Each user must do the migration of their individual data using this menu option. To access the Migration Tools, from the ICE Main Menu, select the "Defining" option and then select the "Migrates" option. This action will display the Migrate Definitions – Import/Export Panel.

9.2.1 Migration Tool

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

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



9.2.1.1 Export

The export function saves Image FOCUS settings by category.

```
                IFO 18.0 - Export Configuration Settings


WORKBENCH DEFINITIONS:
  Sysplex Inspection          ==> Y     (Y/N)
  Release Inspection          ==> Y     (Y/N)
  Component Inspection        ==> Y     (Y/N)
  Mail Options                ==> Y     (Y/N)
                                          ----------------------------
PRODUCTION DEFINITIONS:                  |Note: The Control Task      |
  Inspection                  ==> N     (Y/N)|      should be down if     |
  Options                     ==> N     (Y/N)|      Controlled Definitions |
  Mail Options                ==> N     (Y/N)|      are being exported.    |
                                           ----------------------------
CUSTOM 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.IXPORT. The categories and associated dataset names are described below.

9.2.1.2 Foreground Definitions

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

9.2.1.3 Background Definitions

```
&SYSUID.IFOWK.IXPORT.BIMAGE       Background Options
&SYSUID.IFOWK.IXPORT.BOPTION      Mail Options
&SYSUID.IFOWK.IXPORT.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.

9.2.1.4 Import

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

```
              IFO 18.0 - Import Configuration Settings


WORKBENCH DEFINITIONS:
  IMAGE/SYSPLEX Inspection   ==> N     (Y/N)
  Release Inspection         ==> N     (Y/N)
  Component Inspection       ==> N     (Y/N)
  Mail Options               ==> N     (Y/N)
                                        ----------------------------
PRODUCTION DEFINITIONS:                |Note: The Control Task      |
  Inspection                 ==> N     (Y/N)|     should be down if     |
  Options                    ==> N     (Y/N)|     Controlled definitions |
  Mail Options               ==> N     (Y/N)|     are being imported.   |
                                        ----------------------------
CUSTOM DEFINITIONS:
  Custom Inspection          ==> N     (Y/N)
  Custom Application         ==> N     (Y/N)
```

9.2.1.5 Migration from a Release

Image FOCUS settings for Release IFO 18.0 and more recent releases can be exported and imported into any future Image FOCUS Release.

9.2.1.6 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 ==> IXPORT`

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.

9.2.1.7 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.

10 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 V3R1.

10.1 The Sysplex Inspector

In order to complete a Sysplex Inspection, Image FOCUS must first inspect each Image defined to the Sysplex as it would during an Image Inspection. Next, it collects and stores Sysplex-specific information from each Image that defines its relationship with other Images. This is used to determine if an Image is eligible for inclusion in a Sysplex. The following table details the information sources and eligibility parameters used by the Sysplex Inspector to determine if an Image meets the requirements of a good Sysplex Citizen.

10.2 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.

10.2.1 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.

10.2.2 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

10.2.3 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.

10.2.4 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.

10.2.5 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.

10.2.6 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).

10.2.7 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).

10.2.8 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.

10.2.9 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 LNKLST. Unit addresses cannot always be verified.

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

10.2.9.1 LOADxx Filtering

Several LOADxx keywords allow for the filtering of LOADxx statements based on Hardware name, LPAR name and VM Userid. Using these new parameters (HWNAME, 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 (HWNAME or LPARNAME or VMUSERID), Image FOCUS allows for the selection of one of the defined values or a value of -BLANK-.

HWNAME, 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.

10.2.10 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.

10.2.10.1 System Dataset Classes

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

```
BRODCAST 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.

10.2.10.2 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:

```
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.
```

10.2.11 Dynamic Change Inspector

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

10.2.11.1 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.

10.2.11.2 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.

10.2.12 JES Inspector

The JES2/3 Inspector is used to inspect the parameters that start the JES2/3 subsystem. The inspection is performed on the JES2/3 parameters that would be used as determined by 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.

10.2.12.1 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.

10.2.12.2 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.

10.2.12.3 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.

10.2.12.4 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:

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.

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.

3. Network Inspector

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

10.2.13 The VTAM Inspector

The 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.

10.2.13.1 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.

10.2.13.2 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.

10.2.13.3 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.

10.2.13.4 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.

10.2.13.5 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.

10.2.14 The TCP/IP Inspector

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

10.2.14.1 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.

10.2.14.2 TCPIP.DATA

The TCPIP.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.

10.2.15 The CICS Inspector

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

10.2.16 ParmLib Member Inspection

The Single ParmLib Member Inspector is designed to support the inspection of any single ParmLib Member at any time. This enhancement saves considerable time, avoiding the need for a full Image Inspection when the focus of activity or concern is a single ParmLib Member. The Single ParmLib Member Inspector can be accessed in one of the two ways described below:

10.2.16.1 The Component Inspector

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

```
                Image Focus Single Component Inspection
COMMAND ===>
Component Type  ==>             (PARMLIB, XPARMLIB, JES2, JES3, VTAM,
                                 TCPIP, TCPDATA, RESOLVER, TELNET,
                                 FTP, SMTP, OMPROUTE, 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 ===>
   Inspector Settings:
    Inspection Name ==>                =A User Assigned Name
    Member Name     ==>                Blank for Member List
    DD Concat Index ==>                Specific DD dataset index
   Processing Options:
    Release Level  ==>     202=z202 203=z203 204=z204 205=z205 (default=running)
    Member Display ==> Y   Y or N to show the Source Member or File Content
    Report Level   ==> 1   1=ALL 2=Error or Warning 3=Error Only 4=Final Result

   Parmlib Datasets:                                                Row 1  of 16
..      Index     ------- Fully Qualified Data Set Name -------    Volume
..      -00-   => SMS.PARMLIB                                 => C3USR1 (c)
..      -01-   => USER.Z23C.PARMLIB                           => C3CFG1
..      -02-   => FEU.Z23C.PARMLIB                            => C3CFG1
..      -03-   => ADCD.Z23C.PARMLIB                           => C3SYS1
..      -04-   => SYS1.PARMLIB                                => C3RES1
        -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, overtype 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  VTLVL0 LVL0.PARMLIB
..   ALLJ3     0               VPMVSD VENDOR.PARMLIB
..   ALLJ3     1          DUP  VTMVSG SVTSC.PARMLIB
..   ALLJ3     2          DUP  VTLVL0 LVL0.PARMLIB
..   ALLMPF    2               VTLVL0 LVL0.PARMLIB
..   ALLMPF1   2               VTLVL0 LVL0.PARMLIB
..   ALLMPF2   2               VTLVL0 LVL0.PARMLIB
..   ANTXIN00  3               VIMVSB SYS1.PARMLIB
..   APPCPMOM  2               VTLVL0 LVL0.PARMLIB
..   APPCPM00  1               VTMVSG SVTSC.PARMLIB
..   ASAIPCSP  3               VIMVSB SYS1.PARMLIB
..   ASBIPCSP  3               VIMVSB SYS1.PARMLIB
..   ASCHPMOM  2               VTLVL0 LVL0.PARMLIB
..   ASCHPM00  1               VTMVSG SVTSC.PARMLIB
..   ATBIPCSP  3               VIMVSB SYS1.PARMLIB
..   AXR00     2               VTLVL0 LVL0.PARMLIB
..   BDTIPCSP  3               VIMVSB SYS1.PARMLIB
..   BLSCECT   3               VIMVSB SYS1.PARMLIB
..   BLSCECTX  3               VIMVSB SYS1.PARMLIB
..   BPXIPCSP  3               VIMVSB SYS1.PARMLIB
..   BPXPRMAA  2          IFO  VTLVL0 LVL0.PARMLIB
..   BPXPRMAZ  2          IFO  VTLVL0 LVL0.PARMLIB
..   BPXPRMFS  2          IFO  VTLVL0 LVL0.PARMLIB
..   BPXPRMOM  1          IFO  VTMVSG SVTSC.PARMLIB
..   BPXPRMOM  2          IFO  DUP  VTLVL0 LVL0.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.

10.2.16.2 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 ===>                                                 SCROLL ===> PAGE
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          CEDIT    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                                                Count
..  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
..  COMMNDCG   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.

11 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     08/08/2021   10:07:  SUCCESS
..  SYSPLEX    OPSYS    PROD0001    118     08/08/2021   10:07:  ERROR
..  IMAGE      OPSYS    IMAGCLG1   7791     08/08/2021   10:05:  ERROR
..  IMAGE      OPSYS    IMAGCLG2   7791     08/08/2021   10:06:  ERROR
..  CHGSUM     OPSYS    IMAGCLG2     18     08/08/2021   10:07:  SUCCESS
..  CHGDET     OPSYS    IMAGCLG2     90     08/08/2021   10:07:  SUCCESS
****************************** Bottom of data ******************************
```

11.1 Audit Log

```
 BROWSE -- CLUSTER_BROWSE -------------------------- Line 00000000 Col 001 080
 Command ===>                                          Scroll ===> CSR
******************************** Top of Data ********************************
IFO1102I ALLOCATING REPORT DSN  'IFO.IFOTBG.REPORT.D2021129.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 NEZ1    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 NEZ1    ERROR.
****************************** Bottom of Data ******************************
```

11.2 Sysplex Inspection Index

```
      Image Focus -  SYSPLEX  Report Index for  PROD0005         Row 1 from 7
COMMAND ===>                                                  SCROLL ===> PAGE

    Line Commands:  S - Select  E - Edit Mode
       Report   Line Commands            Report   Line Commands
       INDEX    SF M  P  ME MX
    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
  CMD  Name      Code
  ..  ++ALL      ERROR        Inspection Log
  ..  -REPORTS   ERROR        Compliance Documentation
****************************** Bottom of data ********************************
```

11.3 Sysplex Inspection

```
 BROWSE    INDEXED_REPORT----MEMBER=++ALL            Line 00000000 Col 001 080
 Command ===>                                                Scroll ===> PAGE
******************************** Top of Data ***********************************
IFO0999I REPORT FOR IMAGE *** SYSTEM *** ERROR.
IFO1003I SYSPLEX INSPECTION REPORT.
IFO1004I INSPECTION ENDED WITH ERROR.
IFO1000I  REPORT GENERATED BY FOREGROUND EXECUTION.
IFO0000I  REPORT DATASET:  'PHARL2.IFOSP.REPORT.D2021242.T1340088'.
IFO1008I  PACKAGE INDEX DATASET: 'IFO.IFOT.PACKAGE.INDEX'.
IFO1539I MULTISYSTEM TYPE SELECTED DUE TO MULTIPLE IMAGES DEFINED.
IFO1500I PROCESSING IMAGE NUMBER 1.
IFO1501I  OPSYS INSPECTION COMPLETED WITH ERRORS.
IFO1502I  SYSPLEX=SVSCPLEX; SYSNAME=NEZ1; SYSCLONE=W1.
IFO1503I  IPLUNIT=1000; IODFUNIT=0CE3; LOADPARM=0CE3W1.1.
IFO1504I  PLEXCFG=MULTISYSTEM; GRS=TRYJOIN; ETRMODE=YES; STPMODE=; SIMETRID=00.
IFO1548I  BPXPRM SYSPLEX=YES.

IFO1544I ASSOCIATED SYSTEM INFORMATION.
IFO1545I NO ASSOCIATED IPL INFORMATION AVAILABLE.
IFO1545I NO ASSOCIATED IOS INFORMATION AVAILABLE.

IFO1505I CHECKING SYSPLEX ELIGIBILITY FOR IMAGE NUMBER 1.
IFO1506I  CHECKING SYSPLEX PRIMARY COUPLE DATASET.
IFO1508I  DSN=COUPLE.PXCF.CDS.
IFO1509I  PRIMARY COUPLE DATASET VERIFIED.
IFO1531I  CHECKING COUPLE DATASET SPECIFICATIONS.
IFO1521I  CHECKING SYSPLEX DATASET.
IFO1534I   PRIMARY DATASET=COUPLE.PXCF.CDS; VOL=VPSMSB.
IFO1534I   ALTERNATE DATASET=COUPLE.AXCF.CDS; VOL=VPSMSD.
IFO1521I  CHECKING ARM DATASET.
IFO1535I   PRIMARY DATASET NOT DEFINED.
IFO1535I   ALTERNATE DATASET NOT DEFINED.
IFO1521I  CHECKING CFRM DATASET.
IFO1534I   PRIMARY DATASET=COUPLE.PCFRM.CDS; VOL=VPSMSB.
IFO1534I   ALTERNATE DATASET=COUPLE.ACFRM.CDS; VOL=VPSMSD.
IFO1521I  CHECKING LOGR DATASET.
IFO1534I   PRIMARY DATASET=COUPLE.PLOGR.CDS; VOL=VPSMSB.
IFO1534I   ALTERNATE DATASET=COUPLE.ALOGR.CDS; VOL=VPSMSD.
IFO1521I  CHECKING SFM DATASET.
```

11.4 Sysplex Cross Checking

```
  IFO1520I CROSS CHECKING IMAGE SYSPLEX VALUES.
  IFO1521I  CHECKING SYSPLEX NAMES .
  IFO1522I  ALL SYSPLEX NAMES ARE THE SAME.
  IFO1521I  CHECKING SYSTEM NAMES .
  IFO1525E  *ERROR* SYSTEM NAMES ARE NOT UNIQUE.
  IFO1521I  CHECKING SYSCLONE VALUES .
  IFO1527E  *ERROR* SYSCLONE VALUES ARE NOT UNIQUE.
  IFO1521I  CHECKING PRIMARY SYSPLEX.
  IFO1528I  ALL DATASET NAMES AND VOLUMES MATCH.
  IFO1521I  CHECKING SIMETRIDS .
  IFO1522I  ALL SIMETRID VALUES ARE THE SAME.
  IFO1521I  CHECKING GRS RNL .
  IFO1522I  ALL GRS RNL ENTRIES ARE THE SAME.
  IFO1521I  CHECKING CONSOLE NAMES .
  IFO1541N  *NOTICE* CONSOLE NAMES ARE NOT UNIQUE.
  IFO1521I  CHECKING BPX SYSPLEX VALUES .
  IFO1522I  ALL BPX SYSPLEX VALUES ARE THE SAME.
  IFO1597I SYSPLEX INSPECTION ENDED WITH ERRORS.
  IFO1598I END OF REPORT.
****************************** Bottom of Data ******************************
```

11.5 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 IEAIPL0010/31/14 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=2021/01/28 TIME=12:44:30 USER=RAMON.
IFO0923I  LOADW1 MEMBER CONTENTS ARE AS FOLLOWS:
|----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
|*---+----1----+----2----+----3----+----4----+----5
|  IEASYM   (W1,SV,VN)
|  INITSQA  0000K 0512K
|IODF     00 SYS1     MVS      00 Y
|NUCLEUS  1
|NUCLST   SV N
|SYSCAT   VPMVSB113CMASTERV.CATALOG                              CATALOG
|SYSPARM  (00,LV,SV,VN)
|SYSPLEX  SVSCPLEX
|PARMLIB  VENDOR.PARMLIB
|PARMLIB  SVTSC.PARMLIB
|PARMLIB  LVL0.PARMLIB
|PARMLIB  SYS1.PARMLIB
|----+----1----+----2----+----3-BOTTOM OF MEMBER--5----+----6----+----7----+----
|
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   VPMVSB113CMASTERV.CATALOG                              CATALOG
```

11.6 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  TCPIP.SEZAMIG NOT FOUND ON VOLUME VTMVSC.
|IFO2100N  *INTEGRITY* APF DATASETS SHOULD NOT BE DEFINED IF THEY DO NOT EXIST.
|IFO0768N  SYS1.SIATLPA BYPASSED; VOLUME VTMVAB NOT MOUNTED.
|IFO0768N  SYS1.VTAMLIB BYPASSED; VOLUME VTMVAB NOT MOUNTED.
|IFO0768N  SYS1.CSSLIB BYPASSED; VOLUME VTMVSH NOT MOUNTED.
|IFO0768N  SYS1.CSSLIB BYPASSED; VOLUME VTMVSH NOT MOUNTED.
|IFO0749W  SYS1.SIEALNKE IGNORED; NOT ALLOWED.
|IFO0749W  SYS1.SIEAMIGE IGNORED; NOT ALLOWED.
|IFO0632N  APF ENTRY FOR SYS1.LINKLIB ON VOLUME VIMVSB IGNORED; ALREADY ADDED BY
|IFO0786W  UNCLOSED COMMENT DETECTED.
|IFO0786W  UNCLOSED COMMENT DETECTED.
|IFO0987W  MEMBER DATA AFTER LOGICAL END OF FILE.
|IFO0615W  UNBALANCED COMMENTS DETECTED.
|IFO0413N  SYS1.SBDTLPA/VTMVSC IS A DUPLICATE LPALST ENTRY.
|IFO0983W<JCL ERROR IN PROCEDURE TCPPT.
|IFO0983W<JCL ERROR IN PROCEDURE PRRTEST.
|IFO0615W  UNBALANCED COMMENTS DETECTED.
|IFO0746I JES2 PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I HCKR PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I RESOLVER PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I TCPIP PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I TELNET PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CICS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CICS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I LOAD PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I MBRS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CSDS PROCESS COMPLETED SUCCESSFULLY.
|IFO0746I CUST1 PROCESS COMPLETED SUCCESSFULLY.
|
```

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

11.7 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=VTMVSG  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000002 SEC=000000001 USED=000000001 %USED=050
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=23200 DIR:TOT=000005 USED=000001 %USED=020
MEMBERS=000001
|
IFO0798I  LNKLST DATASETS.
|
VENDOR.LINKLIB                             VOL=VPMVSD  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000000300 SEC=000000001 USED=000000002 %USED=000
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=23200 DIR:TOT=000060 USED=000001 %USED=001
MEMBERS=000000
|
SYS1.MIGLIB                                VOL=VTMVSC  SMS=NO   TYPE=PDS
EXTENTS=001 TRKS: PRI=000001500 SEC=000000015 USED=000001015 %USED=067
DSORG=PO  RECFM=U    LRECL=00000 BLKZ=06144 DIR:TOT=000400 USED=000305 %USED=076
MEMBERS=001811
```

11.8 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
```

11.9 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*
AUTOR    00,LV                                                 IEASYSLV    2
AXR      SV                                                    IEASYSSV    1
CATALOG  *DEFAULT*
CEA      *DEFAULT*
CEE      *DEFAULT*
CLOCK    SV                                                    IEASYSLV    2
CLPA     *SPECIFIED*
CMB      UNITR,COMM,GRAPH,CHRDR                                IEASYSLV    2
CMD      J2,00,LV,LW,SV,VN                                     IEASYSLV    2
CON      00                                                    IEASYSLV    2
COUPLE   SV                                                    IEASYSLV    2
CPCR     *NOT SPECIFIED*
CSA      4500,300000                                           IEASYSSV    1
CSCBLOC  ABOVE                                                 IEASYSLV    2
CVIO     *NOT SPECIFIED*
DEVSUP   SV                                                    IEASYSLV    2
DIAG     *DEFAULT*
DRMODE   *DEFAULT*
DUMP     DASD                                                  IEASYSVN    0
EXIT     *DEFAULT*
FIX      00,RF                                                 IEASYSLV    2
GRS      TRYJOIN                                               IEASYSLV    2
GRSCNF   00                                                    IEASYSLV    2
GRSRNL   SV                                                    IEASYSLV    2
HVCOMMON *DEFAULT*
HVSHARE  *DEFAULT*
IKJTSO   *DEFAULT*
IOS      TC                                                    IEASYSLV    2
IXGCNF   *NOT SPECIFIED*
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      00,70,67,DE,11                                        IEASYSSV    1
MAXCAD   *DEFAULT*
MAXUSER  300                                                   IEASYSLV    2
MLPA     RF,IA,RX                                              IEASYSSV    1
MSTRJCL  SV                                                    IEASYSLV    2
NONVIO   *DEFAULT*
NSYSLX   *DEFAULT*
OMVS     OM,SV,DB,IA,I1,IM,70,67,RZ,IZ,VN                      IEASYSVN    0
OPI      YES                                                   IEASYSLV    2
OPT      *DEFAULT*
PAGE     PAGE.S0W1.PLPA,PAGE.S0W1.COMMON1,PAGE.S0W1.LOCALA,PAGE. IEASYSSV    1
...      S0W1.LOCALB,PAGE.S0W1.LOCALC,PAGE.S0W1.LOCALD,PAGE.S0W1
...      .LOCALE,PAGE.S0W1.LOCALF,PAGE.S0W1.LOCALG,PAGE.S0W1.LOC
...      ALH,L
PAGESCM  *DEFAULT*
```

```
PAGTOTL  12                                                    IEASYSSV    1
PAK      00                                                    IEASYSLV    2
PLEXCFG  MULTISYSTEM                                           IEASYSLV    2
PRESCPU  *NOT SPECIFIED*
PROD     00,DE,LV                                              IEASYSSV    1
PROG     00,VN,67,52,J3,AA,DE,P1,DB,IA,I1,FA,RZ,A1,MS,CB,SY,LA,L IEASYSVN    0
...      B,MC,MD,LE,LJ,LN,EL,GY,P2,DL,FM,L1,LQ,LZ,MR,L9
RDE      *DEFAULT*
REAL     280                                                   IEASYS00    2
RER      *DEFAULT*
RSU      0                                                     IEASYS00    2
RSVNONR  90                                                    IEASYSLV    2
RSVSTRT  5                                                     IEASYSLV    2
RTLS     *DEFAULT*
SCH      00,IA,TC,MQ,AT,C8                                     IEASYSSV    1
SMF      SV                                                    IEASYSSV    1
SMS      SM                                                    IEASYSVN    0
SQA      8,10                                                  IEASYSSV    1
SSN      SM,J2,RF,TC,FF,PE,RS,AT,67,MQ,DB                      IEASYSSV    1
SVC      IA,67                                                 IEASYSSV    1
SYSNAME  *DEFAULT*
UNI      *DEFAULT*
VAL      00,DB                                                 IEASYSSV    1
VIODSN   SYS1.S0W1.STGINDEX                                    IEASYSLV    2
VRREGN   140                                                   IEASYS00    2
WARNUND  *NOT SPECIFIED*
ZAAPZIIP *DEFAULT*
```

11.10 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    2021/09/17 12:26:56  DPACK
IEASVC65 IEASYSSV                            1    2021/08/14 16:07:48  FLEMING
PROG00   IEASYSVN     N                      2    2021/06/18 08:01:18  RAMON
PROGVN   IEASYSVN     N                      0    2021/02/22 10:59:58  PHARL2
PROG52   IEASYSVN     N                      2    2021/08/07 11:27:31  TODD
PROG65   IEASYSVN     N                      1    2021/08/14 16:19:22  FLEMING
PROGJ3   IEASYSVN                            2    2021/08/04 11:46:40  RAMON
PROGAA   IEASYSVN     N                      2    2021/09/06 10:16:21  RAMON
PROGDB   IEASYSVN                            1    2020/09/25 09:26:17  DPACK
PROGMS   IEASYSVN                            1    2021/07/27 15:56:07  IBMUSER
PROGI9   IEASYSVN     N                      1    2020/10/17 12:29:07  DPACK
PROGC7   IEASYSVN     N                      1    2020/10/17 12:19:30  DPACK
PROGFM   IEASYSVN                            1    2020/10/29 10:49:15  IBMUSER
PROGID   IEASYSVN                            1    2020/10/29 13:50:07  IBMUSER
PROGWD   IEASYSVN                            1    2020/10/31 12:06:00  SVTSCU
PROGSY   IEASYSVN                            2    2021/04/04 19:45:45  RALEY
PROGLA   IEASYSVN                            2    2020/10/09 22:36:14  RALEY
PROGLB   IEASYSVN           W                2    2021/02/21 15:30:21  PKRUTZA
PROGMC   IEASYSVN                            2    2020/12/12 14:57:22  PKRUTZA
PROGMD   IEASYSVN                            2    2020/12/13 13:44:53  PKRUTZA
PROGLE   IEASYSVN                            2    2020/12/12 14:56:37  PKRUTZA
PROGLF   IEASYSVN                            1    2020/10/29 10:48:16  IBMUSER
PROGLI   IEASYSVN                            1    2020/10/29 15:54:18  IBMUSER
PROGLG   IEASYSVN                            2    2020/12/12 14:57:11  PKRUTZA
PROGLJ   IEASYSVN                            2    2021/03/26 18:16:49  PKRUTZA
PROGLM   IEASYSVN                            2    2020/12/12 09:33:38  RAMON
PROGLN   IEASYSVN                            2    2020/11/06 10:36:45  RAMON
PROGLQ   IEASYSVN                            1    2021/08/14 16:15:22  FLEMING
PROGD9   IEASYSVN                            1    2020/10/17 12:31:37  DPACK
PROGB7   IEASYSVN                            1    2020/10/17 12:19:09  DPACK
PROGGY   IEASYSVN                            1    2020/10/23 16:55:25  SVTSCU
PROGIQ   IEASYSVN                            1    2020/10/24 13:46:48  SVTSCU
PROGEL   IEASYSVN                            1    2020/10/24 14:14:56  IBMUSER
PROGL9   IEASYSVN                            2    2021/04/04 19:56:02  RALEY
IEAFIX00 IEASYSLV                            2    2021/06/02 11:35:00  WALL
IEAFIXRF IEASYSLV                            2    2021/06/17 15:46:26  PKRUTZA
IEALPARF IEASYSSV           W                2    2020/12/05 11:24:30  TODD
```

11.11 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
```

11.12 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 LNKLST(8) VOL=VIMVSB;DSN=SYS1.LINKLIB.
  IFO0923I  IEFSDPPT MEMBER CONTENTS ARE AS FOLLOWS:
  |----+----1----+----2----+----3---TOP OF MEMBER---5----+----6----+----7----+----
  |PPT      PGMNAME(IEDQTCAM)
  |       CANCEL
  |       NOSWAP
  |       NOPRIV
  |       NOSYST
  |       DSI
  |       PASS
  |       KEY(6)
  |       AFF(NONE)
  |       NOPREF
  |PPT      PGMNAME(ISTINM01)
  |       NOCANCEL
  |       NOSWAP
  |       NOPRIV
  |       SYST
  |       DSI
  |       NOPASS
  |       KEY(6)
  |       AFF(NONE)
  |       NOPREF
  |PPT      PGMNAME(IKTCAS00)
  |       NOCANCEL
  |       SWAP
  |       PRIV
  |       SYST
  |       DSI
  |       PASS
  |       KEY(6)
  |       AFF(NONE)
  |PPT      PGMNAME(AHLGTF  )
  |       NOCANCEL
  |       NOSWAP
  |       NOPRIV
  |       SYST
  |       DSI
```

11.13 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 LNKLST(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.
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 2.2J, BUILD 1.
JES0070I SYNTAX DEFINITION J2#V1R9 LOADED, VER 2.1L FOR APS VER 2.2C.
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----+----
```

11.13.1 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 ******************************
```

11.13.2 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 ******************************
```

11.13.3 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 ******************************
```

11.14 VTAM Configuration Inspection

```
VTM1000I VTAM INSPECTOR STARTED. V2.4 GA.
VTM1001I INSTALLED VTAM COMPONENT IDENTIFIED AS LEVEL V2R4.
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#V1R12 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 ******************************
```

11.14.1 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 ********************************
```

11.14.2 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 ********************************
```

11.14.3 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 ********************************
```

11.15 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 LNKLST(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=NEZ1.
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.
```

11.15.1 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: 18.0 - 09.30.19 - z/OS 2.4 Support - GA
RES1001I  INSPECTION DATE FRIDAY, 30 SEP 2021.
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.
```

11.15.2 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 LNKLST(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 DEFAULTLUS
TNT9811I 00067 TCP00001..TCP00030
TNT9811I 00068 ENDDEFAULTLUS
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.
```

11.15.3 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: 18.0 - 09.30.19 - z/OS 2.4 Support - GA
DAT1001I  INSPECTION DATE MONDAY, 30 SEP 2021.
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.
```

11.15.4 FTP Inspection

```
IFO0739I PROCESSING FTP FOR PROCEDURE FTPSERVE.
IFO0741I  INSPECTION=Y; STORE PACKAGE=N; RELEASE=.
IFO0940I  FTPD FOUND IN LNKLST(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(FTPSDATA)                *
|;                                                                     *
|;   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, 29 SEP 2021.
FTP1002I  INSPECTOR PROCESSING FTP FOR z/OS V2R3.
FTP1003I  INSPECTION RULES SET FOR z/OS V2R3 - 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.
```

12 Custom Inspectors

An optional, additional Inspection step is performed when you set the value of "CUST1" or "CUST2" to "Y". From a "Dataset/Volume List" that you provide, the Inspection Server makes a check of the Master Catalog to determine if the named Dataset is available on the volume specified. In the event the Dataset is not located, a warning message is issued. The provided list is automatically added to the "Package" with each Background Inspection. Changes in the list are reported. The source list Dataset is added to the Dataset Report.

13 Messages and Codes

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

13.1 Supplied Documentation

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

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

13.2 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.

13.3 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.

14 Custom Applications

All Inspection Reports for a named Sysplex are stored in a single dataset called an Inspection Report Cluster. The Cluster includes the Sysplex Inspection Report, the IMAGE Inspection Report and each of its elements, OPSYS, JES, VTAM, TCPIP, CICS and Custom Inspections for each related Image. This report repository is organized into segments, the first of which is called the "Cluster Header". This Header is an index that provides pointers to the locator of the remaining Cluster Segments. The sample that follows is a typical Binary Header.

```
Cluster Report -Binary Header

CLCBc.......1.....................................................................
CLCE2.OPB?P390.........d...........................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
..................................................................................
CLCD2.OP??????????.........d.......................................................
```

Each line of the header, encoded in binary, represents a summary of information about each Cluster Segment. If you are currently or planning to post-process Image FOCUS Inspection Reports, you will want to use the Image FOCUS newly supplied function calls, NSIMEXT or NSISBRO. These calls will first read and interpret the content of the binary header ("RAW DATA") and then provide specific access to named report segments.

A Report Segment contains the following:

1. The record number indicating the start of a Report Segment
2. The number of records in a Report Segment
3. The Report Type (Sysplex, Image, Release, Subsystem, Log)
4. Inspector ID (Opsys, JES2/3, VTAM, TCPIP, CICS, REXX and Custom)
5. Inspection Results (Success, Notice, Warning and Error)
6. User defined/assigned Inspection Definition Name
7. Inspection Date and Time

14.1 Reading the Header

To read the Binary Header, the ddname of the target Inspection Report Dataset is passed to the Image FOCUS function "NSIRRCL" using the "INIT" qualifier. In this context, the returned value of "token" will be "0" or ">0". If the value is ">0", then the target is a valid Image FOCUS

Inspection Report in Cluster Format and the value is equal to the number of Report Segments in the cluster. If the value is "0", the report is invalid or not in Report Cluster Format. In this latter case, application processing should be halted and the "NSIRRCL" function call terminated using the "TERM" qualifier. The example presented is as used in a REXX application.

```
/*********************************************************************/
/* Read Cluster Header with DDName to gather Report Segments Variables     */
/*********************************************************************/

ddname = "temprpt"
token = NSIRRCL('INIT' , ddname) /* Initialize Function */

if token = 0 then
  do
   x = NSIRRCL('TERM' , token) /* Terminate Function */
   exit
  end
 else
   do
     x = NSIRRCL('LIST' , token); x = return_code ; item# = 0

     if x = 0 then
       do
         x = NSIRRCL('TERM' , token) /* Terminate Function */
         exit
       end

      /*****************************************************************/
      /* If report contains valid segments read and process each       */
      /*****************************************************************/

     do while x \= 0

        say IFO_RELREC /* Relative Record # of first Record in item       */
        say IFO_NUMBER /* Number of Records in an item                    */
        say IFO_TYPE   /* Item types: '1' = Sysplex Report                */
                       /* '2' = IMAGE Report                              */
                       /* '3' = Release Report                            */
                       /* '4' = Subsystem Report                          */
                       /* '5' = Log Report                                */
        say IFO_ID     /* Inspector ID: 'OP'= OPSYS INSPECTOR             */
                       /* 'J2'= JES2 INSPECTOR                            */
                       /* 'J3'= JES3 INSPECTOR                            */
                       /* 'VT'= VTAM INSPECTOR                            */
                       /* 'T2'= TCPIP -RESOLVER INSPECTOR                 */
                       /* 'TC'= TCPIP -PROFILE INSPECTOR                  */
                       /* 'T1'= TCPIP -.DATA INSPECTOR                    */
                       /* 'U0'= REXX/CLIST INSPECTOR                      */
                       /* 'U1'= CUSTOM INSPECTOR 1                        */
                       /* 'U2'= CUSTOM INSPECTOR 2                        */
        say IFO_RESULT /* Insp. Results 'S' = Success                     */
                       /* 'N' = NOTICE                                    */
                       /* 'W' = WARNING                                   */
                       /* 'E' = ERROR                                     */
        say IFO_NAME   /* User name associated with an item               */
        say IFO_SDAT   /* Report start date mm/dd/yyyy                    */
        say IFO_STIME  /* Report start time hh:mm:ss                      */
        say IFO_NUMSEG /* Number of Report Segments (after INIT only)     */

    end
 end
```

14.2 Report Segments

Once a Report Segment of interest is found, it can be further processed. One such example of REXX processing would be to read a target cluster and write out its content into a newly allocated temporary dataset.

```
/*********************************************************************/
/* Read Report Cluster with DDName for Specific Segment & Write copy */
/*********************************************************************/

IF SEGMENT_FOUND \= 0 THEN
  DO
    TOKEN = NSIRRCL('INIT',ddname) /* Opens the Cluster */
    IF TOKEN = 0 THEN
      DO
        SAY 'System Error -Report Cluster is Invalid'
        X = NSIRRCL('TERM',TOKEN) /* Closers Cluster */
        EXIT
      END
   ELSE
     DO
        X = NSIRRCL('ITEM',TOKEN,REPSEG) /* Selects Segment */
        IF X /= REPSEG THEN
          DO
            SAY 'System Error -Cluster Segment is Invalid'
            X = NSIRRCL('TERM',TOKEN) /* Closers Cluster */
            EXIT
          END
        ELSE
          DO
            /* IFO_TYPE = 1 = SYSPLEX REPORT */
            /* 2 = IMAGE REPORT */
            /* 3 = RELEASE REPORT */
            /* 4 = SUBSYSTEM REPORT */
            /* 5 = LOG REPORT */
            IF IFO_TYPE = '2' THEN /* Image Inspection */
              DO
                /* IFO_NUMREC = NUMBER OF RECORDS FOR ITEM */
                /* IFO_RELREC = RELATIVE NUM OF FIRST RECORD */
                ADDRESS TSO
                "EXECIO" IFO_NUMREC "DISKR" REPDDN IFO_RELREC ,
                "(FINIS STEM OUTRECS."
                X = NSIRRCL('TERM',TOKEN) /* Closers Cluster */
                USER = SYSVAR(SYSUID) ; USER = STRIP(USER)
                DSRPT = hlq1||'.'||hlq2||'.'||hlq3||'.'||hlq4
                ADDRESS TSO
                "ALLOC DD(TEMP) DA('"DSRPT"') LRECL(80) RECFM(F B) DSORG(PO),
                DIR(18) DSNTYPE(LIBRARY) CYL SPACE(1 1) NEW REUSE"

                DO K = 1 TO OUTRECS.0
                  QUEUE OUTRECS.K
                END
                QUEUE ''
                "EXECIO * DISKW TEMP (FINIS" ; "FREE DD(TEMP)"
              END
             ELSE
               DO
                 Say 'Not an IMAGE Inspection Report'
               END
           END
        END
     END
```

14.3 Cluster Functions

If your application does not require header interpretation and/or you know the exact segment within the cluster you want to access, you should consider using these functions in your application.

14.3.1 Browsing a Segment

To browse a segment, use the following TSO COMMAND.

ADDRESS TSO NSISBRO DDNAME(ddname) SEGMENT(item#)

Where ddname is the DDNAME of the Report Cluster Dataset and item# is the SEGMENT number within the Cluster.

14.3.2 Extract a Segment

To Extract a segment, use the following TSO COMMAND.

ADDRESS TSO NSISBRO indd outdd segment

Where indd is the DDNAME of the Report Cluster Dataset and Outdd is the DDNAME of the resulting output Dataset segment is the item# number within the Cluster.

15 Appendix – Sample Batch Procedures

15.1 IFOBAT PROC

```
//*-------------------------------------------------------*               00000100
//*           NEWERA IMAGE FOCUS ENVIRONMENT              *               00000200
//*            BATCH IMAGE FOCUS PROCEDURE                *               00000300
//*                                                       *               00000400
//*                 IMAGE FOCUS                           *               00000500
//*                                                       *               00000600
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS            *               00000700
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS           *               00000800
//*  PRM     - SUFFIX FOR NSEPRMXX MEMBER                 *               00000900
//*                                                       *               00001000
//*                                                       *               00001100
//*-------------------------------------------------------*               00001200
//*                                                                       00001300
//IFOBATS PROC NSSPRFX='IFO',                                             00001400
//             SPFPRFX='ISP',                                             00001500
//             PRM='00',                                                  00001600
//             IPLU='*',      IPL UNIT ADDRESS (4     CHARS; REQUIRED)    00001700
//             LPRM='*',      LOADPARM         (1 - 8 CHARS; OPTIONAL)    00001800
//             HWN='*',       HARDWARE NAME    (1 - 8 CHARS; OPTIONAL)    00001900
//             LPN='*',       LPAR NAME        (1 - 8 CHARS; OPTIONAL)    00002000
//             VMN='*',       VM USERID        (1 - 8 CHARS; OPTIONAL)    00002100
//             MDP=Y,         MEMBER DISPLAY   (Y OR N     ; OPTIONAL)    00002200
//             RLV=1,         REPORT LEVEL     (1,2,3, OR 4; OPTIONAL)    00002300
//             ADDC=,         ADD'L COMMNDXX   (2     CHARS; OPTIONAL)    00002400
//             DSR=Y,         DATASET REPORT   (Y OR N     ; OPTIONAL)    00002500
//             CAT=,          SYSCAT SUFFIX    (0,  2 CHARS; OPTIONAL)    00002600
//             SYS=,          IEASYS SUFFIX    (0,  2 CHARS; OPTIONAL)    00002700
//             IHLQ=,         IPLPARM HLQ      (1 - 8 CHARS; OPTIONAL)    00002800
//             PKG=N,         PACKAGE CREATE   (Y OR N     ; OPTIONAL)    00002900
//             RLS=,          RELEASE LEVEL    (3 DIGITS   ; OPTIONAL)    00003000
//             CHG=N          DYNAMIC CHANGE   (Y OR N     ; OPTIONAL)    00003100
//*                                                                      00003200
//IEFPROC EXEC PGM=NSIBBAT,                                             00003300
//   PARM='ISPSTART CMD(%IFBGBATS &PRM,&IPLU,&LPRM,&HWN,&LPN,&VMN,&MDP, 00003400
//             &RLV,&ADDC,&DSR,&CAT,&SYS,&IHLQ,&PKG,&RLS,&CHG)',          00003500
//             DYNAMNBR=600,                                             00003600
//             REGION=40M                                                00003700
//STEPLIB   DD DSN=&NSSPRFX..LOAD,DISP=SHR                              00003800
//*-------------------------------------------------------------*       00003900
//*                                                                     00004000
//*  SETUP INSPECTION REPORT LOG BY UNCOMMENTING ONLY ONE BELOW         00004100
//*                                                                     00004200
//*                                                                     00004300
//*RPT   SET RDSN='DUMMY,',SELECT=SYSOUT  /* USE SYSOUT             */ 00004400
//RPT   SET RDSN=,SELECT=LOG          /* USE PREALLOCATED DATASET*/      00004500
//*-------------------------------------------------------------*       00004600
//*                                                                     00004700
//REPORT    DD DDNAME=R&SELECT                                          00004800
//RSYSOUT   DD SYSOUT=A,HOLD=YES                                        00004900
//RLOG      DD &RDSN.DISP=SHR,DSN=&NSSPRFX..IFOBATS.&SYSNAME..LOG       00005000
//*                                                                     00005100
//NSEPARM   DD DSN=&NSSPRFX..PARMLIB,DISP=SHR                           00005200
//ISPPROF   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                          00005300
//             BLKSIZE=3120,LRECL=80,RECFM=FB                           00005400
//ISPTABL   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                          00005500
//             BLKSIZE=3120,LRECL=80,RECFM=FB                           00005600
//SYSPROC   DD DISP=SHR,DSN=&NSSPRFX..SISPCLIB                          00005700
//          DD DISP=SHR,DSN=&SPFPRFX..SISPCLIB          ISPF          00005800
//SYSEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC          ISPF          00005900
//ISPMLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPMENU                        00006000
//          DD DISP=SHR,DSN=&SPFPRFX..SISPMENU          ISPF          00006100
//ISPEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC          ISPF          00006200
//ISPPLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPPENU                        00006300
//          DD DISP=SHR,DSN=&SPFPRFX..SISPPENU          ISPF          00006400
```

```
//ISPSLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPSENU          ISPF          00006500
//          DD DISP=SHR,DSN=&SPFPRFX..SISPSLIB          ISPF          00006600
//ISPTLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPTENU          ISPF          00006700
//SYSTSIN   DD DUMMY                                                  00006800
//SYSTSPRT  DD SYSOUT=A,HOLD=YES                                      00006900
//SYSUDUMP  DD SYSOUT=A,HOLD=YES                                      00007000
//ISPLOG    DD SYSOUT=A,HOLD=YES,                                     00007100
//             BLKSIZE=129,LRECL=125,RECFM=VA                         00007200
//NSETABL   DD DISP=SHR,DSN=&NSSPRFX..SISPTABB                        00007300
//NSEPWORK  DD UNIT=SYSDA,SPACE=(CYL,(5,1))                           00007400
//NSEPWRK2  DD UNIT=SYSDA,SPACE=(CYL,(5,1))                           00007500
```

15.2 IFOBATA PROC

```
//*-------------------------------------------------*                 00000100
//*           NEWERA IMAGE FOCUS ENVIRONMENT        *                 00000200
//*            BATCH IMAGE FOCUS PROCEDURE          *                 00000300
//*                                                 *                 00000400
//*                 IMAGE FOCUS                     *                 00000500
//*                                                 *                 00000600
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS      *                 00000700
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS     *                 00000800
//*  PRM     - SUFFIX FOR NSEPRMXX MEMBER           *                 00000900
//*                                                 *                 00001000
//*                                                 *                 00001100
//*-------------------------------------------------*                 00001200
//*                                                                   00001300
//IFOBATA PROC NSSPRFX='IFO',                                         00001400
//             SPFPRFX='ISP',                                         00001500
//             PRM='00',                                              00001600
//             IPLU='*',      IPL UNIT ADDRESS (4     CHARS; REQUIRED) 00001700
//             LPRM='*',      LOADPARM         (1 - 8 CHARS; OPTIONAL) 00001800
//             HWN='*',       HARDWARE NAME    (1 - 8 CHARS; OPTIONAL) 00001900
//             LPN='*',       LPAR NAME        (1 - 8 CHARS; OPTIONAL) 00002000
//             VMN='*',       VM USERID        (1 - 8 CHARS; OPTIONAL) 00002100
//             MDP=Y,         MEMBER DISPLAY   (Y OR N     ; OPTIONAL) 00002200
//             RLV=1,         REPORT LEVEL     (1,2,3, OR 4; OPTIONAL) 00002300
//             ADDC=IF,      ADD'L COMMNDXX   (2     CHARS; OPTIONAL)  00002400
//             DSR=Y,         DATASET REPORT   (Y OR N     ; OPTIONAL) 00002500
//             JX=Y,          INSPECT JES2/3   (Y ON N     ; OPTIONAL) 00002600
//             CI=Y,          INSPECT CICS     (Y ON N     ; OPTIONAL) 00002700
//             VT=Y,          INSPECT VTAM     (Y ON N     ; OPTIONAL) 00002800
//             TC=Y,          INSPECT TCPIP    (Y ON N     ; OPTIONAL) 00002900
//             U0=N,          INSPECT LOAD     (Y ON N     ; OPTIONAL) 00003000
//             IHLQ=,         IPLPARM HLQ      (1 - 8 CHARS; OPTIONAL) 00003100
//             PKG=N,         PACKAGE CREATE   (Y OR N     ; OPTIONAL) 00003200
//             RLS=,          RELEASE LEVEL    (3 DIGITS   ; OPTIONAL) 00003300
//             CHG=N          DYNAMIC CHANGE   (Y OR N     ; OPTIONAL) 00003400
//*                                                                   00003500
//IEFPROC EXEC PGM=NSIBBAT,                                           00003600
//     PARM='ISPSTART CMD(%IFBGBATA &PRM,&IPLU,&LPRM,&HWN,&LPN,&VMN,  00003700
//             &MDP,&RLV,&ADDC,&DSR,&JX,&CI,&VT,&TC,&U0,&IHLQ,&PKG,   00003800
//             &RLS,&CHG)',                                           00003900
//             DYNAMNBR=600,                                          00004000
//             REGION=40M                                             00004100
//STEPLIB   DD DSN=&NSSPRFX..LOAD,DISP=SHR                            00004200
//*-----------------------------------------------------------------* 00004300
//*                                                                   00004400
//*  SETUP INSPECTION REPORT LOG BY UNCOMMENTING ONLY ONE BELOW       00004500
//*                                                                   00004600
//*                                                                   00004700
//*RPT   SET RDSN='DUMMY,',SELECT=SYSOUT  /* USE SYSOUT          */   00004800
//RPT   SET RDSN=,SELECT=LOG          /* USE PREALLOCATED DATASET*/   00004900
//*-----------------------------------------------------------------* 00005000
//*                                                                   00005100
```

```
//REPORT    DD DDNAME=R&SELECT                                          00005200
//RSYSOUT   DD SYSOUT=A,HOLD=YES                                        00005300
//RLOG      DD &RDSN.DISP=SHR,DSN=&NSSPRFX..IFOBATA.&SYSNAME..LOG       00005400
//*                                                                     00005500
//NSEPARM   DD DSN=&NSSPRFX..PARMLIB,DISP=SHR                           00005600
//NSEULIB   DD DSN=&NSSPRFX..USERLIB,DISP=SHR                           00005700
//ISPPROF   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                          00005800
//             BLKSIZE=3120,LRECL=80,RECFM=FB                           00005900
//ISPTABL   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                          00006000
//             BLKSIZE=3120,LRECL=80,RECFM=FB                           00006100
//SYSPROC   DD DISP=SHR,DSN=&NSSPRFX..SISPCLIB                          00006200
//          DD DISP=SHR,DSN=&SPFPRFX..SISPCLIB           ISPF           00006300
//SYSEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF           00006400
//ISPMLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPMENU                          00006500
//          DD DISP=SHR,DSN=&SPFPRFX..SISPMENU           ISPF           00006600
//ISPEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF           00006700
//ISPPLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPPENU                          00006800
//          DD DISP=SHR,DSN=&SPFPRFX..SISPPENU           ISPF           00006900
//ISPSLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPSENU           ISPF           00007000
//          DD DISP=SHR,DSN=&SPFPRFX..SISPSLIB           ISPF           00007100
//ISPTLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPTENU           ISPF           00007200
//SYSTSIN   DD DUMMY                                                    00007300
//SYSTSPRT  DD SYSOUT=A,HOLD=YES                                        00007400
//SYSUDUMP  DD SYSOUT=A,HOLD=YES                                        00007500
//ISPLOG    DD SYSOUT=A,HOLD=YES,                                       00007600
//             BLKSIZE=129,LRECL=125,RECFM=VA                           00007700
//NSETABL   DD DISP=SHR,DSN=&NSSPRFX..SISPTABB                          00007800
//NSEPWORK  DD UNIT=SYSDA,SPACE=(CYL,(5,1))                             00007900
//NSEPWRK2  DD UNIT=SYSDA,SPACE=(CYL,(5,1))                             00008000
```

15.3 IFOBATS PROC

```
//*-----------------------------------------------------*               00000100
//*           NEWERA IMAGE FOCUS ENVIRONMENT            *               00000200
//*            BATCH IMAGE FOCUS PROCEDURE              *               00000300
//*                                                     *               00000400
//*                 IMAGE FOCUS                         *               00000500
//*                                                     *               00000600
//*  NSSPRFX - PREFIX FOR IMAGE FOCUS DATASETS          *               00000700
//*  SPFPRFX - PREFIX FOR IBM ISPF/PDF DATASETS         *               00000800
//*  PRM     - SUFFIX FOR NSEPRMXX MEMBER               *               00000900
//*                                                     *               00001000
//*                                                     *               00001100
//*-----------------------------------------------------*               00001200
//*                                                                     00001300
//IFOBAT  PROC NSSPRFX='IFO',                                           00001400
//             SPFPRFX='ISP',                                           00001500
//             PRM='00',                                                00001600
//             IPLU='*',      IPL UNIT ADDRESS (4     CHARS; REQUIRED)  00001700
//             LPRM='*',      LOADPARM         (1 - 8 CHARS; OPTIONAL)  00001800
//             HWN='*',       HARDWARE NAME    (1 - 8 CHARS; OPTIONAL)  00001900
//             LPN='*',       LPAR NAME        (1 - 8 CHARS; OPTIONAL)  00002000
//             VMN='*',       VM USERID        (1 - 8 CHARS; OPTIONAL)  00002100
//             MDP=Y,         MEMBER DISPLAY   (Y OR N     ; OPTIONAL)  00002200
//             RLV=1,         REPORT LEVEL     (1,2,3, OR 4; OPTIONAL)  00002300
//             ADDC=,         ADD'L COMMNDXX   (2     CHARS; OPTIONAL)  00002400
//             DSR=Y,         DATASET REPORT   (Y OR N     ; OPTIONAL)  00002500
//             IHLQ=,         IPLPARM HLQ      (1 - 8 CHARS; OPTIONAL)  00002600
//             PKG=N          PACKAGE CREATE   (Y OR N     ; OPTIONAL)  00002700
//*                                                                     00002800
//IEFPROC EXEC PGM=NSIBBAT,                                             00002900
//    PARM='ISPSTART CMD(%IFBGBAT &PRM,&IPLU,&LPRM,&HWN,&LPN,&VMN,&MDP, 00003000
//             &RLV,&ADDC,&DSR,&IHLQ,&PKG)',                            00003100
//             DYNAMNBR=600,                                            00003200
```

```
//             REGION=40M                                                  00003300
//STEPLIB   DD DSN=&NSSPRFX..LOAD,DISP=SHR                                 00003400
//*-------------------------------------------------------------------*     00003500
//*                                                                        00003600
//*  SETUP INSPECTION REPORT LOG BY UNCOMMENTING ONLY ONE BELOW           00003700
//*                                                                        00003800
//*                                                                        00003900
//*RPT   SET RDSN='DUMMY,',SELECT=SYSOUT  /* USE SYSOUT          */      00004000
//RPT   SET RDSN=,SELECT=LOG          /* USE PREALLOCATED DATASET*/      00004100
//*-------------------------------------------------------------------*     00004200
//*                                                                        00004300
//REPORT    DD DDNAME=R&SELECT                                             00004400
//RSYSOUT   DD SYSOUT=A,HOLD=YES                                           00004500
//RLOG      DD &RDSN.DISP=SHR,DSN=&NSSPRFX..IFOBAT.&SYSNAME..LOG           00004600
//*                                                                        00004700
//NSEPARM   DD DSN=&NSSPRFX..PARMLIB,DISP=SHR                              00004800
//ISPPROF   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                             00004900
//             BLKSIZE=3120,LRECL=80,RECFM=FB                              00005000
//ISPTABL   DD SPACE=(TRK,(5,5,5)),UNIT=SYSDA,                             00005100
//             BLKSIZE=3120,LRECL=80,RECFM=FB                              00005200
//SYSPROC   DD DISP=SHR,DSN=&NSSPRFX..SISPCLIB                             00005300
//          DD DISP=SHR,DSN=&SPFPRFX..SISPCLIB           ISPF              00005400
//SYSEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF              00005500
//ISPMLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPMENU                             00005600
//          DD DISP=SHR,DSN=&SPFPRFX..SISPMENU           ISPF              00005700
//ISPEXEC   DD DISP=SHR,DSN=&SPFPRFX..SISPEXEC           ISPF              00005800
//ISPPLIB   DD DISP=SHR,DSN=&NSSPRFX..SISPPENU                             00005900
//          DD DISP=SHR,DSN=&SPFPRFX..SISPPENU           ISPF              00006000
//ISPSLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPSENU           ISPF              00006100
//          DD DISP=SHR,DSN=&SPFPRFX..SISPSLIB           ISPF              00006200
//ISPTLIB   DD DISP=SHR,DSN=&SPFPRFX..SISPTENU           ISPF              00006300
//SYSTSIN   DD DUMMY                                                       00006400
//SYSTSPRT  DD SYSOUT=A,HOLD=YES                                           00006500
//SYSUDUMP  DD SYSOUT=A,HOLD=YES                                           00006600
//ISPLOG    DD SYSOUT=A,HOLD=YES,                                          00006700
//             BLKSIZE=129,LRECL=125,RECFM=VA                              00006800
//NSETABL   DD DISP=SHR,DSN=&NSSPRFX..SISPTABB                             00006900
//NSEPWORK  DD DUMMY                                                       00007000
```

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NewEra Software, Inc.

Mailing Address:

18625 Sutter Blvd., Suite 950
Morgan Hill, CA 95037

Phone:

(408) 520-7100
(800) 421-5035

Text:

(669) 888-5061

FAX:

(866) 939-7099

Email Address:

support@newera.com

Web Site:

https://www.newera.com

Technical Support:

24 hours a day, 7 days a week
1-800-421-5035
support@newera.com