Configuration, and Deployment: Highlights of Common z/OS Configuration Tool Enhancements for 2H08-2H09

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z/OS Configuration Tool - Development

Introduction

This article addresses the following problems:

1. ABEND E37s running out of space when doing an SMP/E install of a number of z/OS® based products that use the z/OS Configuration Tool (OMEGAMON® , ITCAM, and so on).

2. After several attempts to edit the canned SMP/E jobs in the &thilev.TKANPKGI target library, your installation jobs still fail with space issues

3. An operational product problem took weeks to diagnose→cause: a required configuration step was bypassed.

4. The product started tasks have to be shutdown in order to run the ICAT System Variables' runtime members job.

5. The Hub Tivoli Enterprise Monitoring Server (TEMS) cannot be moved from one LPAR to another without reconfiguring every component that connects to it.

6. The Persistent Data Store (PDS) maintenance processing is too complicated as the function needs to submit a secondary batch job to perform maintenance causing historical collection failures at times due to RACF issues.

7. Manual configuration updates made outside the Configuration Tool (a.k.a "ICAT") got overlaid.

8. The current product deployment and upgrade time is inconsistent across the OMEGAMON suite.

These are just some of the many issues addressed.

The z/OS Configuration Tool and the IBM® Tivoli® Management Services configuration have been enhanced to reduce the total cost of ownership. This helps you to focus more on product use and less on product installation and configuration.

Integrating the Configuration Tool: Category of Enhancements

To address our customers' consumability concerns, the following enhancements are now available:

A. Support for the Job Generator SMP/E process with focus on maintenance strategies

B. A configuration verification program with parameter map

C. System Variables and Batch Mode improvements

D. Runtime environment (RTE) and navigation improvements

E. IBM Tivoli Monitoring configuration improvements

F. Product configuration accepts any product-specific parameters

G. Detailed preinstallation requirements/instructions and upgrade/deployment scenarios

[Enablement Support]{.underline}

These PTFs are now available:

PTF#	FMID
UA47377/UA48096	HKCI310
UA45709	HKDS610
UA45710	HKDS620
UA45711/UA48032	HKDS621

Also, the upcoming PTFs for the following APARs provide additional configuration enhancements in 3Q09:

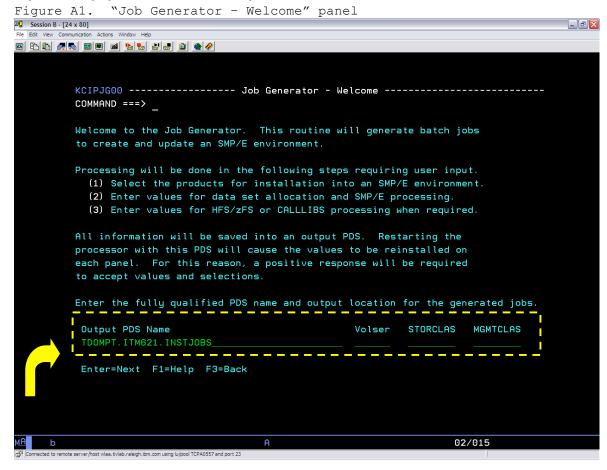| APAR#	FMID
OA28829	HKCI310
OA28830	HKDS610
OA28830	HKDS620
OA28830	HKDS621

Opportunities Addressed

A. Support the Job Generator SMP/E process with focus on maintenance strategies

Improved "Generate install JCL" facility

```
A recent function, the Install Job Generator ("Generate install JCL"),
addresses the issues associated with installing multiple products into a
new or existing environment.  This "Generate install JCL" functionality
that was introduced in APAR OA24039 (HKCI310 PTF UA40601) has been
enhanced further:
```

- **New Output PDS members** - as part of the initialization process, the control data, KCIDJG00, will be copied to the output PDS and this copy will be used for the generation processes. The panel responses will also be maintained in a new member, KCIDJG05, of this PDS that will allow a generalized restart that is independent of TSO userid. The updated panel are shown below:

Figure A1. "Job Generator – Welcome" panel

```
KCIPJG00 ----------------- Job Generator - Welcome -------------------------
COMMAND ===> _


Welcome to the Job Generator.  This routine will generate batch jobs
to create and update an SMP/E environment.

Processing will be done in the following steps requiring user input.
   (1) Select the products for installation into an SMP/E environment.
   (2) Enter values for data set allocation and SMP/E processing.
   (3) Enter values for HFS/zFS or CALLLIBS processing when required.

All information will be saved into an output PDS.  Restarting the
processor with this PDS will cause the values to be reinstalled on
each panel.  For this reason, a positive response will be required
to accept values and selections.

Enter the fully qualified PDS name and output location for the generated jobs.

Output PDS Name                              Volser   STORCLAS   MGMTCLAS
TDOMPT.ITM621.INSTJOBS_____ _____ _____  _____


 Enter=Next  F1=Help  F3=Back
```

- **New Update option** – if you have received products that are not currently on the list, you can update the product selection table by specifying Update on the command line of the "Job Generator - Product Selection" panel. This will invoke the update facility process to add the additional products to the list. The updated panels are shown below:

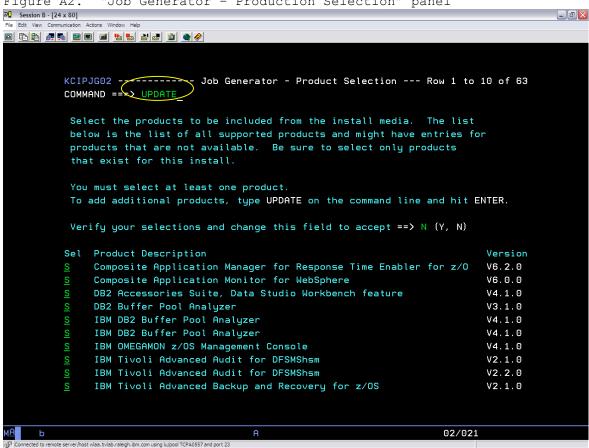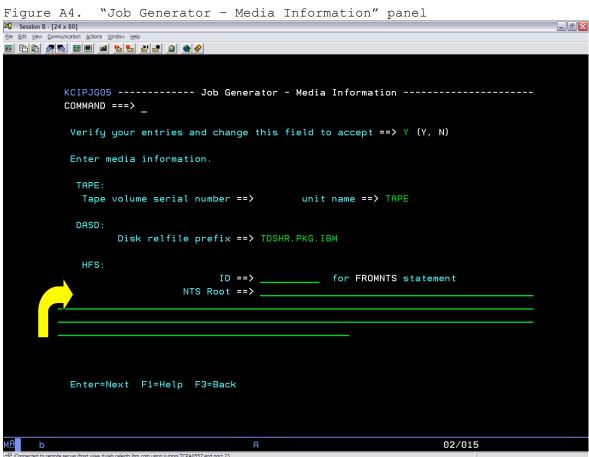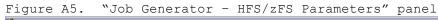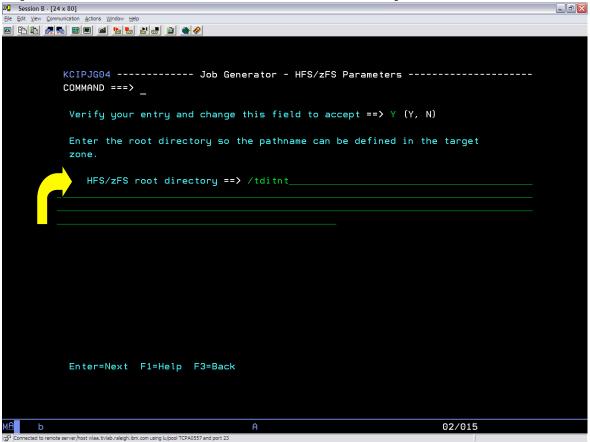Figure A2. "Job Generator – Production Selection" panel

Figure A3.   "Job Generator – Update Facility" panel

```
KCIPJGD0 -------------- Job Generator - Update Facility ----------------------
COMMAND ===>

 Specify parameters for installing additional data into the KCIDJG00
 member of the work data set.  Specify one or more high level
 qualifiers that should be used to search for new products.

 High Level Qualifiers (HLQ)  ==> TDSHR.PKG.IBM
 _____

 Libraries to be searched will be of the form: HLQ.fmid.Fn

 Note:
 Not all products qualify for inclusion into the job generator process.
 Only products that are configured with the installation and
 configuration tool are eligible.




 Enter=Next  F1=Help  F3=Back
```

▪ **Longer Root Directory fields** - the Media Information NTS Root field and the HFS/zFS Parameters Root Directory field now support 255 characters. The updated panels are shown below:

Figure A4. "Job Generator – Media Information" panel

Figure A5.   "Job Generator – HFS/zFS Parameters" panel

```
KCIPJG04 ------------- Job Generator - HFS/zFS Parameters --------------------
COMMAND ===> _

   Verify your entry and change this field to accept ==> Y (Y, N)

   Enter the root directory so the pathname can be defined in the target
   zone.

      HFS/zFS root directory ==> /tditnt_____
      _____
      _____
      _____

      Enter=Next  F1=Help  F3=Back
```

Enhancements related to the Job Generator are referenced in the "What's
New" on-line README. You can display this README by typing "README"
command on the z/OS Configuration Tool Main Menu (KCIPRIM panel):

```
KCIPRDM1 ---------------------- WHAT'S NEW --------------------------------
COMMAND ===>                                              SCROLL ===> CSR

KCIPRDM1 ---------------------- WHAT'S NEW --------------------------------
 COMMAND ===>                                             SCROLL ===> CSR

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**:------------------------------------------------------------------:**
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                        Installation What's New


 This file describes enhancements and operational information for
 the Installation and Configuration Assistance Tool.  Installation
 panels, help panels, and generated jobs will simply refer to the
 "Installation and Configuration Assistance Tool" as the Installation
```

```
tool.
.
.
.
The following Installation tool enhancements are supported:

Installer V310 Release 16:

  APAR OA28829: New KCIJALOC sample allocation job

  A new KCIJALOC sample job to allocate and build installation
  datasets is now available.  KCIJALOC sample job is delivered in
  &thilev.TKCIINST library.
  This job is used to allocate the following libraries required by the
  Installation tool:
  - &shilev.INSTDATA
  - &shilev.INSTJOBS
  - &shilev.INSTSTAT
  - &shilev.INSTLOG
  - &shilev.INSTLIB
  - &shilev.INSTLIBW
  - &shilev.INSTDATW
  - &shilev.INSTQLCK
  (where &shilev is the installation high-level qualifier).

  The job also copies elements from TKCIINST to the INSTLIB library.
  Prior to KCIJALOC, the "Setting up the Configuration Tool" Chapter
  of the Common Planning and Configuration Guide publication provided
  a sample IEBCOPY JCL that could be manually copied to a dataset then
  customize further.  With KCIJALOC, the sample JCL will already be
  available for further customization of the jobcard and high-level
  qualifiers.


  APAR OA28829: "Create batch mode job" option moved

  The "Create batch mode job" option is used to generate the CICATB
  JCL, which runs the configuration process under batch.  This option
  also creates the KCISETUP REXX exec.  When invoked, this exec
  enables your ISPF environment to use the configuration-supplied ISPF
  macros.  These macros are useful for composing and managing the
  parameter members used for the Batch Mode process.  The "Create
  batch mode job" option is now moved from the "Configure products"
  >"Services and utilities" navigation (from the "Configuration
  Services and Utilities" panel) to the "Set up work environment"
  panel (option 1 from the Main Menu).  As this option is dependent on
  the jobcard specified on the "Specify JCL options" panel, the
  "Create batch mode job" option is now the third selection on the
  "Set up work environment" menu:
    1  Specify JCL options
    2  Set up configuration environment
    3  Create batch mode job
    4  Allocate work libraries

  APAR OA28829: "Install products" option label modified

  The "Install products" option on the Main Menu now has an optional
  label for clarity.  The option name now reads:
    "Install products (Optional: for file-tailored SMP/E jobs)"
  The purpose of the modification is to further clarify that this
```

```
     option is not a required step but it is available for customers to
     use if they choose to have the Installation tool file-tailor the
     SMP/E jobs for installation as opposed to using the sample hardcoded
     SMP/E jobs in the &thilev.TKANPKGI library.
```

Installer V310 Release 14:

APAR OA27782: Improved "Generate install JCL" facility

The "Generate install JCL" functionality that was introduced in
APAR OA24039 has been enhanced further:
1. New generated name prefix - The generated jobs to install the
   selected products are created as PDS library members. The prefix
   for the member names may now be specified on the "Job Generator -
   Parameters" panel. The new name prefix may be from 1 to 5
   characters long. The default is KCIJG.

2. Modified SMP/E default zone names - for new installations, the
   new default zone names are as follows:
     Before   After
     CANTZ1   TZONE
     CANDZ1   DZONE
For more information, refer to the on-line helps provided with the
"Generate install JCL" option that is available on the Main Menu's
"Install products" navigation.

Installer V310 Release 13:

APAR OA26981: Improved "Generate install JCL" facility

The "Generate install JCL" functionality that was introduced in
APAR OA24039 has been enhanced further:
1. New Output PDS members - as part of the initialization process,
   the control data, KCIDJG00, will be copied to the output PDS and
   this copy will be used for the generation processes. The panel
   responses will also be maintained in a new member, KCIDJG05, of
   this PDS that will allow a generalized restart that is
   independent of TSO userid.

2. New Update option - if you have received products that are not
   currently on the list, you can update the product selection table
   by specifying Update on the command line of the "Job Generator -
   Product Selection" panel. This will invoke the update facility
   process to add the additional products to the list.

3. Longer Root Directory fields - the Media Information NTS Root
   field and the HFS/zFS Parameters Root Directory field now
   support 255 characters.

For more information, refer to the on-line helps provided with the
"Generate install JCL" option that is available on the Main Menu's
"Install products" navigation.

Note: Refer to DCF Newsflash Technote #1307480* discussion for Phase 1
implementation of this enhancement.
*Technote link provided in the "Reference Links" section "A. Enhancements
referred from 1H08".

A closer focus on SMP/E maintenance strategies

IBM Tivoli OMEGAMON/Tivoli Management Services products on z/OS use the standard IBM way of installation via SMP/E with CBPDO or via a ServerPac.
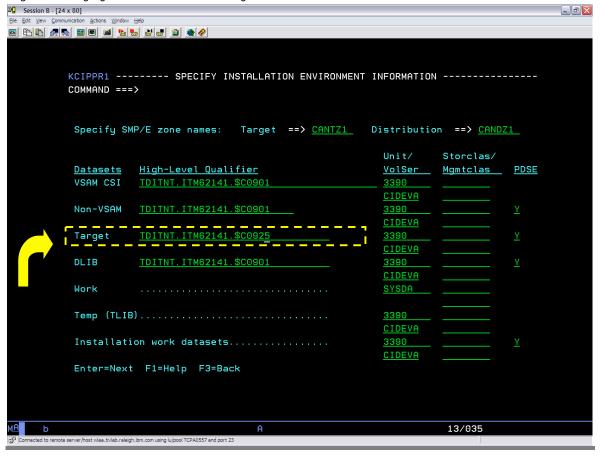
Supporting the z/OS Configuration Tool's SMP/E Job Generator** process to create file-tailored batch jobs to create a new SMP/E environment and/or to update an existing CSI, is just one of the flexibilities that IBM provides to improve the installation user experience. The Job Generator addresses the ABEND E37 issues associated with installing multiple products into a new or existing environment. It supports installation of any number of products from a CBPDO tape and has a DASD Analyzer job that can be run prior to SMP/E installation.

In a ServerPac installation, this media is a complete replacement for z/OS Operating System plus the other products thus it requires a brand new CSI. Usage of a ServerPac though can be extended further not just in a brand new installation but also in existing environments. As a maintenance strategy, one can lay down the ServerPac in a new CSI with the identical product FMIDs and versions in the existing CSI. The difference would be that the ServerPac will already include all the latest SMP/E maintenance pre-applied.

The z/OS Configuration Tool already provides the flexibility to switch SMP/E target high-level qualifiers that it points to for configuration and maintenance of the corresponding runtime environments. In a scenario where the current SMP/E target libraries that the Configuration Tool points to are very backleveled in maintenance, one can deploy the ServerPac maintenance strategy concept by installing the ServerPac using a new CSI. Then update the Configuration Tool to point to the new set of SMP/E target high-level qualifiers.

To point the Configuration Tool to the latest SMP/E set of target libraries, perform these steps:
1. Start the Configuration Tool by entering the following command on a TSO command line: EX '&*shilev*.INSTLIB'
2. From the Main Menu, select Option S (Services and Utilities) and press Enter. The Installation Services and Utilities panel is displayed.
3. Select option 1 (Unlock SMP/E high-level qualifiers). The Unlock SMP/E High-Level Qualifiers panel is displayed.
4. Enter Y to unlock SMP/E high-level qualifiers. Change the SMP/E Target high-level qualifier to the new high-level qualifier from the new ServerPac installation with the higher level of maintenance, as shown below:

B. A configuration verification program with parameter map

New "Verify configuration and generate parameter map" option

Before starting the products, there is no general way to confirm that all of the steps required to configure the products in an RTE were performed correctly. When product operational issues arise, diagnosis takes time. In addition, there is no consolidated map that lists all configuration parameters, where they are defined and where they are stored.

APAR OA24039 introduced the new RTE IVP process. APAR OA28829 further enhances the IVP process with the addition of job log data. For products configured in an RTE, the IVP process verifies whether or not all required batch configuration jobs were generated and whether or not they were executed successfully. It examines those jobs and verifies whether or not all required datasets and members were generated.

A new configuration batch job logging facility has been implemented. Whenever a batch configuration job is generated, a final step is appended that logs all step completion codes for the job. The log is cumulative of all jobs run to configure all RTEs in the installation environment. This job/step log is kept in &shilev.INSTLOG.

For each job run, the log includes: date and time of job completion, the dsname(member) of the job, and for each job step: the JES jobname and job number, stepname and proc stepname, completion code and the name of the program executed.

```
VIEW        &shilev.INSTLOG                        Columns 00001 00072
Command ===>                                       Scroll ===> CSR
000967 09.176 19:03:18 TDOMPT.ITM621.INSTJOBS(CB#VFULL)
000968 09.176 19:03:18    MYUID$B2/J04878          .STEP1     0000/00000 IEBUPDTE
000969 09.176 19:03:18    MYUID$B2/J04878          .STEP2     0000/00000 IEBCOPY
000970 09.176 19:03:18    MYUID$B2/J04878          .STEP3     0000/00000 IEBCOPY
000971 09.176 19:03:18    MYUID$B2/J04878          .STEP4     0000/00000 IEBUPDTE
000972 09.176 19:03:18    MYUID$B2/J04878          .KCIDSV41 0000/00000 IKJEFT01
000973 09.176 19:03:49 TDOMPT.ITM621.INSTJOBS(CB#7FULL)
000974 09.176 19:03:49    MYUID$B2/J04879          .INIT1     0000/00000 IEBUPDTE
000975 09.176 19:03:49    MYUID$B2/J04879          .RENAMESV 0000/00000 IKJEFT01
000976 09.176 19:03:50 TDOMPT.ITM621.INSTJOBS(CB#8FULL)
000977 09.176 19:03:50    MYUID$B2/J04880          .STEP1     0000/00000 IEBUPDTE
000978 09.176 19:03:50 TDOMPT.ITM621.INSTJOBS(CB#PFULL)
000979 09.176 19:03:50    MYUID$B2/J04882          .COPYSYSP 0000/00000 IEBUPDTE
000980 09.176 19:05:05 TDOMPT.ITM621.INSTJOBS(CB#2FULL)
000981 09.176 19:05:05    MYUID$B2/J04883          .KANCLI    0000/00000 IEBCOPY
000982 09.176 19:05:05    MYUID$B2/J04883          .KANDATR   0000/00000 IEBCOPY
000983 09.176 19:05:05    MYUID$B2/J04883          .KANDATV   0000/00000 IEBCOPY
000984 09.176 19:05:05    MYUID$B2/J04883          .KANEXEC   0000/00000 IEBCOPY
000985 09.176 19:05:05    MYUID$B2/J04883          .KANHENU   0000/00000 IEBCOPY
000986 09.176 19:05:05    MYUID$B2/J04883          .KANISP    0000/00000 IEBCOPY
000987 09.176 19:05:05    MYUID$B2/J04883          .KANMOD    0000/00000 IEBCOPY
000988 09.176 19:05:05    MYUID$B2/J04883          .KANMODR   0000/00000 IEBCOPY
000989 09.176 19:05:05    MYUID$B2/J04883          .KANMODL  *ABN=SE37  IEBCOPY
000990 09.176 19:05:05    MYUID$B2/J04883          .KANMODP  *Flushed*  IEBCOPY
000991 09.176 19:05:05    MYUID$B2/J04883          .KANPENU  *Flushed*  IEBCOPY
000992 09.176 19:05:05    MYUID$B2/J04883          .KANSAMV  *Flushed*  IEBCOPY
```

This job log data enhances the content of the required jobs section of the IVP report.

```
VIEW       &shilev.INSTJOBS.IVP$FULL(IVP1FULL)          Columns 00001 00072
Command ===>                                            Scroll ===> CSR
000030
***********************************************************************
000031 *   SECTION 1: REQUIRED CONFIGURATION BATCH JOBS
000032
***********************************************************************
000033
000034 * LEGEND:  JOB     Member name of job in INSTJOBS dataset
000035 *          STATUS  EXISTS  -- Job exists in INSTJOBS dataset. Either
000036 *                             it has never been run or it has not
000037 *                             been generated and run since job
000038 *                             logging was implemented by OA28829.
000039 *                  MISSING -- Job does not exist in INSTJOBS dataset.
000040 *                  OPTION  -- Job does not exist in INSTJOBS dataset,
000041 *                             but it is only required if the optional
000042 *                             feature it configures was selected.
000043 *                  OK      -- Job was run and ended with high CC EQ 0.
000044 *                  WARNING -- Job was run and ended with high CC LE 4.
000045 *                  ERROR   -- Job was run and ended with high CC GT 4.
000046 *          PPVVV     Product code (e.g., DS621)
000047 *          JOBNAME   JES jobname
000048 *          JOB#      JES job number
000049 *          DATE      Job end date
000050 *          TIME      job end time
000051 *          HI-CC     Highest step completion code
000052
000053 JOB       STATUS  PPVVV JOBNAME  JOB#   DATE    TIME      HI-CC
000054 -------- ------- ----- -------- ------ ------ -------- -----
000055 AH#3FULL OK      AH310 MYUID$B2 J04745 09.176 18:55:37 00000
000056 AH#4FULL OK      AH310 MYUID$B2 J04744 09.176 18:55:36 00000
000057 CB#NFULL OPTION  CB100
000058 CB#PFULL OK      CI310 MYUID$B2 J04882 09.176 19:03:50 00000
000059 CB#VFULL OK      CI310 MYUID$B2 J04878 09.176 19:03:18 00000
000060 CB#1FULL OK      CI310 MYUID$B2 J04739 09.176 18:55:23 00000
000061 CB#2FULL ERROR   CI310 MYUID$B2 J04883 09.176 19:05:05 SE37
000062 CB#7FULL OK      CI310 MYUID$B2 J04879 09.176 19:03:49 00000
000063 CB#8FULL OK      CI310 MYUID$B2 J04880 09.176 19:03:50 00000
000064 CN#3FULL OK      CN120 MYUID$B2 J04873 09.176 19:02:47 00000
000065 C2#GFULL OPTION  C2560
000066 C2#HFULL OPTION  C2560
000067 C2#OFULL EXISTS  C2560
000068 C2#WFULL OK      C2560 MYUID$B2 J04748 09.176 18:55:40 00000
```
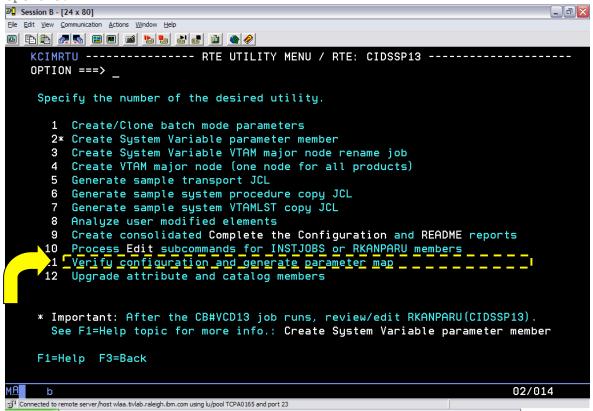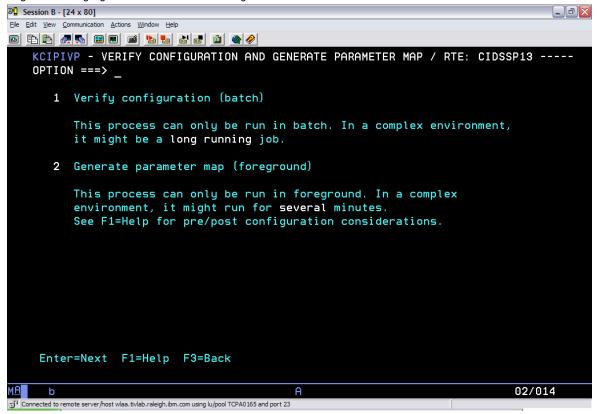
Additionally, after you have created and configured an RTE in one z/OS image running the RTE load job now generates and submits the configuration verification (IVP) job, which verifies that all the required batch configuration jobs were created and run successfully, and that all of the required runtime datasets and members were created.

This process is also further enhanced to generate a Parameter Map for an RTE. A Parameter Map is produced including each configuration variable defined in each of the data dictionaries for each of the components configured in the RTE or, in a pre-configuration environment, for each component installed in the TKANCUS dataset (&thilev.TKANCUS).
On the RTE Utility Menu, option 11, "Verify configuration and generate parameter map", now displays a panel that offers IVP and Parameter Map options.

```
Session B - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help

   KCIMRTU ---------------- RTE UTILITY MENU / RTE: CIDSSP13 --------------------
   OPTION ===> _

    Specify the number of the desired utility.

      1  Create/Clone batch mode parameters
      2* Create System Variable parameter member
      3  Create System Variable VTAM major node rename job
      4  Create VTAM major node (one node for all products)
      5  Generate sample transport JCL
      6  Generate sample system procedure copy JCL
      7  Generate sample system VTAMLST copy JCL
      8  Analyze user modified elements
      9  Create consolidated Complete the Configuration and README reports
     10  Process Edit subcommands for INSTJOBS or RKANPARU members
     11  Verify configuration and generate parameter map
     12  Upgrade attribute and catalog members


    * Important: After the CB#VCD13 job runs, review/edit RKANPARU(CIDSSP13).
      See F1=Help topic for more info.: Create System Variable parameter member

    F1=Help  F3=Back


MA    b                                                            02/014
Connected to remote server/host wlaa.tivlab.raleigh.ibm.com using lu/pool TCPA0165 and port 23
```

The modified option now presents two sub-options:
  o The original "Verify configuration (batch)" option delivered in APAR OA24039
  o The new "Generate parameter map (foreground)" option

```
Session B - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help

    KCIPIVP - VERIFY CONFIGURATION AND GENERATE PARAMETER MAP / RTE: CIDSSP13 -----
    OPTION ===> _


        1  Verify configuration (batch)

           This process can only be run in batch. In a complex environment,
           it might be a long running job.

        2  Generate parameter map (foreground)

           This process can only be run in foreground. In a complex
           environment, it might run for several minutes.
           See F1=Help for pre/post configuration considerations.









        Enter=Next  F1=Help  F3=Back

MA      b                                    A                          02/014
Connected to remote server/host wlaa.tivlab.raleigh.ibm.com using lu/pool TCPA0165 and port 23
```

The new parameter map function generates a report as shown below. It
provides a very detailed parameter map for parameters that are typically
generated in runtime members by a product configuration job.

The examples below provide the name of the Batch parameter that
represents the equivalent field that can be customized on the interactive
ICAT panels. It also shows the actual parameter written out to which
runtime member by the specific configuration job in the applicable
runtime library. The report also shows the specific panels on which this
value may be customized. APAR OA28829 also adds job completion data to
this report.

```
ISREDDE2   &shilev.INSTJOBS.IVP$xxxx(PMAPxxxx)
Command ===>                                            Scroll ===> CSR
.
.
008942 -------------------------------------------------------------------------
008943 NAME:          KDS_CMS_TCP_KDEBLST
008944 Description:  'TCP/IP network interface list'
008945 VARNAME:       DSKDEB
008946 VALUE:         !*
008947 CLASS:         TCP
008948 PARM:          KDEB_INTERFACELIST=!*
008949 PANELS:     2 PANEL    DESCRIPTION
008950                -------- -------------------------------------------------
008951                KDS62PPC Specify Ip.udp Communication Protocol
008952                KDS62PPD Specify Ip.pipe Communication Protocol
008953 SKELS:      1 KDS62SBB

008954 MEMBERS:    1 MEMBER   JOB      STEP     LIB      JOBNAME  JOB#   HI-CC
008955                -------- -------- -------- -------- -------- ------ -----
008956                KDSENV   DS#3FULL STEP2    RKANPARU MYUID$ST J19881 00000
008957                KDSENV   D5#4FULL STEP2    RKANPARU MYUID$ST J19916 00000
```

```
008958               KDSENV   MQ#4FULL STEP2    RKANPARU MYUID$ST J19943 00000
008959 -----------------------------------------------------------------------
 .
 .
 .
023989 -----------------------------------------------------------------------
023990 NAME:         KD5_AGT_STOR_MIN_EXT
023991 Description:  'Minimum extended storage'
023992 VARNAME:      AGMIN
023993 VALUE:        256000
023994 CLASS:        STORAGE
023995 PARM:         MINIMUM(256000,X)
023996 PANELS:     1 PANEL    DESCRIPTION
023997               -------- -----------------------------------------------
023998               KAG62P5  Specify Advanced Agent Configuration Values
023999 SKELS:      1 KAG621SC
024000 MEMBERS:    1 MEMBER   JOB      STEP     LIB      JOBNAME  JOB#   HI-CC
024001               -------- -------- -------- -------- -------- ------ -----
024002               KD5ENV   D5#3FULL STEP3    RKANPARU MYUID$ST J19920 00000
024003 ----------------------------------------------------------------------.
 .
 .
025769 -----------------------------------------------------------------------
025770 NAME:         KMQ_AGT_ICU_LANG
025771 Description:  'Language locale of z/OS machine'
025772 VARNAME:      AGICULAN
025773 VALUE:        1
025774 PARM:         LANG=1
025775 PANELS:     1 PANEL    DESCRIPTION
025776               -------- -----------------------------------------------
025777               KAG62P5  Specify Advanced Agent Configuration Values
025778 SKELS:      1 KAG621SC
025779 MEMBERS:    1 MEMBER   JOB      STEP     LIB      JOBNAME  JOB#   HI-CC
025780               -------- -------- -------- -------- -------- ------ -----
025781               KMQENV   MQ#3FULL STEP9    RKANPARU MYUID$ST J20010 00000
025782 -----------------------------------------------------------------------
```

Type README IVP on the Configuration Tool command line for more
information on usage of this facility.

DCF Newsflash Technote #1307480* provides more information on the IVP
report option #1 on the "Verify configuration and generate parameter map"
menu. *Technote link provided in the "Reference Links" section "A.
Enhancements referred from 1H08".

APAR OA28829 also distributes two new HealthChecks that are configured
via the Configuration tool. These HealthChecks run as System REXX execs
and enable two system alerts.

1. At a user defined interval (default 30 minutes) a check is made to
   verify that all started tasks configured for an RTE are running. If
   not, an alert is raised.

2. At IPL, a check is made to verify that all of the libraries that
   are required to be APF authorized, for all of the started tasks
   configured for an RTE, are in the APF list. If not, an alert is
   raised.

Note: In addition, there are JES Spool utilization health checks
available from the OPAL website.
http://www-01.ibm.com/software/brandcatalog/portal/opal/details?catalog.label=1TW10OM18

C. System Variables and Batch Mode improvements

Sharable "Create System Variable parameter member" job

The CB#Vxxxx "Create System Variable parameter member" job has been enhanced to no longer require an exclusive enqueue on the runtime libraries during job execution. The job is generated by selecting the "Create System Variable parameter member" option on the RTE Utility Menu.

When adding new products in an existing RTE that is enabled for System Variables, you no longer have to shutdown the product started tasks in order to run the KCIDSV41 step in the CB#Vxxxx refresh job.

Modified Create/Clone batch mode processing

The on-line README BAT batch write-up has been updated in details to add two key sections ("Section: Creating batch mode parameters" and "Section: Cloning batch mode parameters"), as highlighted below:

```
KCIPRDM1 ------------------------ README --------------------------------
 COMMAND ===>                                            SCROLL ===> CSR

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                        Batch Mode Considerations

After you have created and configured an RTE in one z/OS image via
interactive mode of the Configuration tool, you would want to use
the batch mode processing option to replicate the RTE onto other z/OS
images.  Batch mode processing is an alternate way of building and
configuring an RTE. Instead of using the interactive Configuration tool
to build and configure an RTE, you can submit a single batch job that
performs all of the same processing.

The components of batch mode processing in the Configuration tool
include:

Configuration tool batch job (CICATB)
  CICATB is a job that is generated into the
  &shilev.INSTJOBS library.  You submit this job to
  build, configure and load an RTE.  Please refer to the CICATB job
  commentary section for important information about input and output
  controls, and special considerations.  A sample of the CICATB JCL is
  referenced in the CICATB JCL sample section below.

Configuration tool batch parameter member
  This is a single member in &shilev.INSTJOBS,
  that contains all of the configuration values for all products to
  be configured in the RTE.

RTE Utility to create Configuration tool batch parameter member
```

```
   This utility creates the batch parameter member for an existing
   RTE, which can then be used for subsequent CICATB job executions.
   The name of the parameter member is the RTE name.
 .
 .
```

Section: Creating batch mode parameters

```
-------------------------------------------------------------------------
You can generate parameter decks for all products within an existing
RTE, and then copy the information into a new library member to be
used during batch mode processing.

Follow these steps to generate the RTE parameters and copy the
information into a new library member.

1. From the Configuration tool Main Menu, select Configure products
   then Select product to configure and select the product you are
   configuring. The Configuration tool displays the Runtime
   Environments (RTEs) panel.

2. Create the new batch mode parameter member:
   a. Type Z next to the RTE you want to replicate and press Enter.
   b. From the RTE Utility Menu panel, select Create/Clone batch mode
      parameters and press Enter.
   c. From the Create/Clone batch mode parameter menu, select the
      applicable option:
      - Create batch mode parameter deck
        Note:  This option creates or recreates the batch mode member
                for the current RTE.
      - Clone batch mode parameter deck, unmodified
        Note:  This option clones the batch mode member
                for the current RTE into a new member without changes.
      - Clone batch mode parameter deck, with modifications
        Note:  This option clones the batch mode member
                for the current RTE into a new member with the option
                to exclude components to be cloned into the new member.
   d. Specify the parameter library that will receive the batch
      parameter member generated by the Configuration tool.  The
      &shilev.INSTJOBS library is
      specified by default, and the member name will be the same as
      that of the current RTE (if creating or recreating the member
      for the current RTE)
   e. Specify the parameter library and clone member name (if cloning
      the member for the current RTE).
   f. Modify the batch parameter members accordingly (for example, if
      cloning a new member, change the settings specific to the z/OS
      image where the new RTE will be created).
```

```
When cloning batch mode parameters, review the next section below:
```

Section: Cloning batch mode parameters

```
-------------------------------------------------------------------------
From the Create/Clone batch mode parameter menu, the two options
below allow for cloning the existing RTE's batch parameter member:
- Clone batch mode parameter deck, unmodified
- Clone batch mode parameter deck, with modifications
```

Both options allow you to edit the cloned member further to specify
any site-specific values that apply to another z/OS system
representing the cloned member (i.e., where the cloned RTE member is
intended to be configured and run). Both "Clone batch mode parameter
deck" options also allow you to change the RTE JCL suffix for the
cloned member. When selecting either options from the menu, you are
prompted for a dynamic note similar to the example note below,
depending on if the RTE has a TEMS configured or not. In the
example note below, the current RTE being processed has a Hub TEMS
configured:
"For cloning purposes, the TEMS configured in this RTE=&rte
 is a Hub. To model another RTE with a different TEMS type,
 enter README BAT on the command line and read the "Creating batch
 mode parameters" section."

If you selected the option to "Clone batch mode parameter deck, with
modifications", then you are prompted for the "Modify Batch Mode
Parameters Deck &clone_member" panel to allow you to select any
products you wish to exclude from the new batch member (for example,
CICS and IMS subsystems are not running on the LPAR where the cloned
batch member will be configured or there will be no TEMS running on
the LPAR, etc). If you select a product that has dependencies with
other products, the Configuration tool presents the "Some Components
Were Not Excluded" panel with further explanation as to why the
component you excluded may not be deleted from the clone batch member.

When cloning a model RTE that will contain a different TEMS type
than the original batch mode member, there are required KDS_* batch
parameters that apply only to a Hub TEMS versus KDS* batch
parameters that apply only to a Remote TEMS. In general, when
creating model RTEs (Hub TEMS-based model RTE and Remote
TEMS-based model RTE), it is recommended to create these RTEs via
the interactive mode. If you will use the batch mode facility, please
review the parameter map report generated from the "Verify
configuration and generate parameter map" option from the RTE Utility
Menu. In the generated parameter map report, the CLASS: parameter
shows if a KDS_* batch parameter applies to a Hub versus a Remote
TEMS. If the CLASS:HUB or CLASS:REMOTE designation is not listed,
then the KDS_* parameter applies to both TEMS types.

Example: TEMS parameters that apply to a Remote TEMS only:
&shilev.INSTJOBS.IVP$xxxx(PMAPxxxx)

NAME: KDS_HUB_NAME
Description: 'Name of Hub'
VARNAME: DSHUBCNA
CLASS: REMOTE

NAME: KDS_HUB_PIPE_PORT
Description: 'Hub Server IP.PIPE port number'
VARNAME: DSHUBPIP
CLASS: REMOTE

NAME: KDS_HUB_TCP_PORT
Description: 'Hub Server IP.UDP port number'
VARNAME: DSHUBPO
CLASS: REMOTE

```
Example: TEMS parameters that apply to a Hub TEMS only:
&shilev.INSTJOBS.IVP$xxxx(PMAPxxxx)
--------------------------------------------------------
NAME:           KDS_CMS_CTSOAP
Description:  'Enable Web Services SOAP Server'
VARNAME:      DSSOAP
CLASS:        HUB
--------------------------------------------------------
NAME:           KDS_CMS_HTTP_PORT
Description:  'HTTP port number for this Server'
VARNAME:      DSHTTP
CLASS:        HUB
.
.
Up or Down to browse or End to return.  Type Print to print, Save to save.
```

Type README BAT on the Configuration Tool command line for more
information on batch processing. Additional sample upgrade and
deployment scenarios have been added in the README BAT documentation. The
"Enterprise-wide configuration scenarios" section in the z/OS Tivoli
Enterprise Monitoring Server (TEMS) publication has also been updated.

D. Runtime environment (RTE) and navigation improvements

Enhanced "Create consolidated Complete the Configuration and README reports" option

The "Complete the Configuration" instructions for each product configured in an RTE can only be displayed by navigating through each product's main menu. There is a need for one consolidated and transportable batch report so that customers do not have to print each README prior to deployment. The enhancement was introduced in APAR OA24039 (HKCI310 PTF UA40601). The modified option "Create consolidated Complete the Configuration and README reports" has been added to the RTE Utility panel. The option name was formerly called "Create consolidated Complete the Configuration instructions".

The utility builds a consolidated listing of the Complete the Configuration instructions for all products configured in a given RTE and a consolidated report of all READMEs in the &shilev.INSTJOBS dataset.

The reports are stored in INSTJOBS in these respective members:
- DFI@xxxx = "Complete the configuration" instructions
- $README = general RTE READMEs and product "What's New" READMEs

If you are a Batch mode user, the CICATB batch job also generates the $README member as part of the CICATB job run.

E. IBM Tivoli Monitoring configuration improvements

There are several major configuration enhancements being introduced in
these HKDSvvv z/OS TMS PTFs. For more information about the different
enhancements, review the on-line, printable "What's New" README entries
available on the README Table of Contents facility on the Runtime
Environments panel. If you enter "R" on this panel, the Configuration
Tool displays a list of available README files for selection.

```
Select:
* AAA - to display information about new features that affect the
        configuration of all components and products installed in the
        CSI.  Once you select "AAA", the "KEY" that discusses these ITM-
        related configuration enhancements are listed below:
  KEY  Configuration What's New
_ DS   Tivoli Enterprise Monitoring Server (TEMS)
_ AG   Common Tivoli Enterprise Monitoring Agent (TEMA)

* DMC - to display information about new, global features of the
        Configuration tool.
```

Alternatively, review the composite $README member generated from the
"Create consolidated Complete the Configuration and README reports" RTE
Utility option. If you are a Batch mode user, the CICATB batch job also
generates the $README member as part of the job run.

A number of the common TEMS and TEMA enhancements for ITM6.2.1 is shown
below. Note that for configuration enhancements such as "**Support for
blank TCP/IP jobname in KppINTCP**", "**Expanded support for nonstandard
parameters**", "**Support for simplified KPDPROCC Persistent Datastore
processing**", "**Change in "Minimum extended storage" default value**" and so
on, these enhancements have been retrofitted also in ITM6.1 and ITM6.2.
Please reference the "Enablement Support" section for a list of PTF and
APARs.

For the "**Support for High Availability (HA) Hub TEMS**" configuration
enhancement being introduced in ITM6.2.1, DCF Newsflash Technote
#1326770* provides more information when enabling this feature in a mixed
environment (products that have provided enablement configuration support
and products that have not). *Technote link provided in the "Reference
Links" section ("B. Additional Links").

E1. z/OS TEMS "Configuration What's New" on-line README:

```
  ------------------------------- README --------------------------------
 COMMAND ===>                                            SCROLL ===> CSR


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   +----------------------------------------------------------------+
                Tivoli Enterprise Monitoring Server (TEMS)
                      Configuration What's New
   +----------------------------------------------------------------+



 This file describes enhancements and operational information for
 this product.


  APAR OA27828: Support for blank TCP/IP jobname in KLXINTCP
 The default TCP/IP Started task value is currently an asterisk ('*').
 The TMS:Engine allows selection of the TCP/IP stack either by name or
 by specification of an asterisk, which selects the first active
 stack found.

 TCP/IP (but not TMS:Engine) also allows specification of a blank
 name, which selects the default stack determined by the TCP/IP
 configuration, rather than leaving the decision to the application.
 When the TCP/IP configuration determines the stack to be used,
 TMS:Engine-based applications are subject to load-balancing, as
 are other TCP/IP applications.

 You can now specify the value '#' in the TCP/IP Started task field
 on the "Specify IP.PIPE Communication Protocol" and "Specify IP.UDP
 Communication Protocol" panels.  The value '#' generates a blank
 value for the TCP/IP_USERID=' ' &tole parameter in the
 &rhilev.&rte.RKANPARU(KLXINTCP) member.
 Note: See Support for TOLERATERECYCLE keyword entry below for
       &tole details.


  APAR OA27369: Support for High Availability (HA) Hub TEMS
 You can now configure a High Availability (HA) Hub TEMS in any
 sysplex environment with dynamic virtual IP addressing (DVIPA) and
 shared DASD.  An HA Hub TEMS is configured in its own RTE,
 without any Tivoli Enterprise Monitoring Agent (TEMA), and can
 be configured on the same LPAR with a Remote TEMS.  This
 configuration allows the Hub TEMS to be relocated to any suitable
 LPAR in the sysplex with no changes, and with minimal disruption to
 the components connecting to the Hub.

 To enable High Availability (HA) Hub TEMS support, specify "HA"
 on the Hub TEMS type field on the "Specify Configuration Values"
 panel.  The "Tivoli Management Services (TMS):
 Configuring the Tivoli Enterprise Monitoring Server on z/OS"
```

publication provides more information.

APAR OA27369: Expanded support for nonstandard parameters

An optional Specify Nonstandard Parameters configuration panel is
available as an F5=Advanced option from the "Specify Advanced
Configuration Values" panel. You can now use the "Specify
Nonstandard Parameters" panel to add, modify, or delete parameters
or parameter options in any member of any runtime library (rather
than just in the KDSENV member of the
&rhilev.&rte.RKANPARU library, as was the
case for the previous release).

APAR OA27369: Persistent Datastore configuration for SMP-sharing RTEs

The Configure persistent datastore (PDS) historical data collection
facility now accesses the PDS data dictionary from TKANPAR for an
SMP-sharing RTE. For that RTE type, a step to copy the PDS data
dictionary to &rhilev.&rte.RKANPAR
is no longer required.

If this is an existing SMP-sharing RTE with products that previously
configured the Persistent Datastore, then it is recommended that the
TEMS Persistent Datastore "Create runtime members" PD#Pxxxx
job and the applications' product-specific pp#Pxxxx Persistent
Datastore "Create runtime members" jobs be regenerated to support
configuration accessing the PDS data dictionary from TKANPAR.

APAR OA27369: Support for en_US.ibm-1047 Language locale codepage

If the z/OS UNIX System Services (USS) codepage (en_US.ibm-1047) is
required, then you may specify the actual en_US.ibm-1047 codepage
value on the Language locale field on the "Specify Advanced
Configuration Values" panel. This specification is then generated
as the value for the LANG=&value parameter generated in the
&rhilev.&rte.RKANPARU(KDSENV) member.

HKDS621: Support for Event Forwarding for a z/OS Hub TEMS

You can now forward situation events reported to a z/OS Hub TEMS
to Tivoli Enterprise Console (TEC) or Netcool/OMNIbus for
correlation and management. To forward events, you must enable the
Tivoli Event Integration Facility (EIF) on the Hub TEMS and
define a default destination server. In addition:
1. The TEC server or the Netcool/OMNIbus server, or both, must be
   configured to receive the events.
2. The situation update forwarding process must be installed on the
   event server.
3. For events forwarded to TEC, the kpp.baroc file for the Agent
   must be installed and imported on the event server.

The "IBM Tivoli Monitoring: Installation and Setup Guide" provides
detailed instructions for configuring TEC and OMNIbus event servers
to receive the events, including installing the event synchronization
component and the kpp.baroc files. "Tivoli Management Services
(TMS): Configuring the Tivoli Enterprise Monitoring Server on z/OS"
provides instructions for configuring a Hub TEMS on z/OS. Refer
to the New in this release section for more information.

```
Support on TEC for events forwarded by each monitoring Agent is
provided by the kpp.baroc file, which is provided with the
application support for the monitoring Agent.  This file must be
installed and loaded on the TEC server to enable event mapping.
After situation forwarding is enabled, by default, all situation
events are forwarded to the default event server.  However, you can
define additional destination servers and customize which situation
events are forwarded and to which event server, using the Situation
editor in the Tivoli Enterprise Portal (TEP).

You may also need to assign an event status compatible with the
target event server.  For information on specifying which situation
events to forward, see the TEP online help and the "IBM Tivoli
Monitoring: User's Guide".

z/OS-based Agents deliver the event forwarding elements (map, baroc,
etc.) in the Agent FMID as well as the distributed media.  Consult
the documentation noted above for more information about FTP
considerations of these elements depending on the platform where the
event server is running.

The Tivoli Enterprise Monitoring Server uses the
Tivoli Event Integration Facility (EIF) to forward situation events.
To enable event forwarding on the z/OS Hub TEMS, you must
specify "Y" on the Enable Tivoli Event Integration Facility (EIF)
field on the "Specify Advanced Configuration Values" panel.
```

HKDS621: Support for new TEMS libraries and started task DDNAMEs

```
The following TEMS libraries are new, and the corresponding
DDNAMEs associated with these Non-VSAM and VSAM datasets will be
added to the CIDSST TEMS started task:


DDNAME   Non-VSAM library name   Non-VSAM description
======== ======================= ==================================
DSEVT    &rhilev.&rte.RKDSEVT     EIF Event PDSE


Applicable to both Hub and Remote TEMS:


DDNAME   VSAM library name       VSAM description
======== ======================= ==================================
QA1DCALE &rvhilev.&rte.RKDSCALE  Dynamic Thresholding
QA1DCONP &rvhilev.&rte.RKDSCONP  Agent Configuration Properties
QA1DCPRM &rvhilev.&rte.RKDSCPRM  Deploy Asynchronous Cmd.
                                 Configuration Parm
QA1DDYST &rvhilev.&rte.RKDSDYST  Deploy Asynchronous Cmd. Status
QA1DEPRM &rvhilev.&rte.RKDSEPRM  Deploy Asynchronous Cmd.
                                 Execution Parm
QA1DGRPA &rvhilev.&rte.RKDSGRPA  TGROUP Group
QA1DGRPI &rvhilev.&rte.RKDSGRPI  TGROUPI Individual Group
QA1DNAME &rvhilev.&rte.RKDSNAME  Long Name Alias
QA1DOVRD &rvhilev.&rte.RKDSOVRD  Dynamic Thresholding
QA1DOVRI &rvhilev.&rte.RKDSOVRI  Dynamic Thresholding


Applicable to a Hub TEMS only:
DDNAME   VSAM library name       VSAM description
======== ======================= ==================================
QA1DBUNG &rvhilev.&rte.RKDSBUNG  Bundle Group Member
QA1DEVMP &rvhilev.&rte.RKDSEVMP  EIF Event Mapping
```

```
QA1DEVSR &rvhilev.&rte.RKDSEVSR   EIF Event
QA1DGRPB &rvhilev.&rte.RKDSGRPB   TGROUP Group
QA1DGRPC &rvhilev.&rte.RKDSGRPC   TGROUPI Individual Group
QA1DPYMR &rvhilev.&rte.RKDSPYMR   Deploy Group Member


Legend:
=======
- &rhilev  = Non-VSAM runtime high-level qualifier
- &rvhilev = VSAM runtime high-level qualifier
- &rte     = Runtime Environment (RTE) name


If the TEMS in this &rte RTE was upgraded from a previous
version of the Tivoli Enterprise Monitoring Server,
then these new VSAM libraries were allocated as part of the
DS#Mxxxx TEMS migration job.  If this is a brand new TEMS
configuration, then these VSAM libraries were allocated as part of
normal RTE Build job (pp#1xxxx).  The RTE Build job is
generated by placing a "B" action next to the RTE on the RTE main
menu.


If this is an upgrade from a previous version of the TEMS,
please ensure that you refresh the CIDSST TEMS started task in
the system procedure library.  To refresh the CIDSST started task
from &rhilev.&rte.RKANSAMU to the
system procedure library, you have the option to submit the
&rhilev.&rte.RKANSAMU(KCISYPJB) sample
copy job which is generated from the Generate sample system procedure
copy JCL option from the RTE Utility Menu.  The JCL (CB#Pxxxx)
that creates the sample system procedure copy job (KCISYPJB) will be
generated from this option.  Type README RTE on the command line and
refer to the "Basic Navigation to the Runtime Environments (RTEs)
Menu" section for more information how to navigate to the RTE Utility
menu.
```

HKDS621: Support for simplified KPDPROCC Persistent Datastore processing

```
The Configure persistent datastore (PDS) historical data collection
facility now supports a more simplified PDS maintenance procedure.
It no longer requires the submission of a KPDPROC2 batch job and
the PDS jobcard (KPDJOBC) in &rhilev.&rte.RKANSAMU
is no longer required.


If this is an existing RTE with products that previously configured
the Persistent Datastore, then the following key PDS members
generated by the TEMS Persistent Datastore "Create runtime
members" PD#Pxxxx or any of the applications' product-specific
pp#Pxxxx Persistent Datastore "Create runtime members" job
must be regenerated to support this maintenance procedure
rearchitecture:
- &rhilev.&rte.RKANSAMU(KPDPROC1)**
- &rhilev.&rte.RKANSAM(KPDPROCC)
** Note: KPDPROC1 must be refreshed in the system procedure library
         once the RTE is using the rearchitectured
         &rhilev.&rte.RKANSAM(KPDPROCC).
         KPDPROC1 supports the modified and the older versions of
         KPDPROCC for purposes of staged deployment of this
         enhancement.
```

Important KPDPROCC and KPDPROC1 Migration Considerations:

If this is an existing RTE with products that previously configured the Persistent Datastore, then only one application within this &rte RTE needs to refresh the KPDPROCC and KPDPROC1 members. These are common PDS maintenance members used globally by all products that configured the persistent datastore.

Enablement KPDPROCC and KPDPROC1 Procedures:

After (re)configuring the Persistent Datastore facility and (re)creating the KPDPROC* runtime members, these post-configuration steps must be performed:

1. Copy the generated KPDPROC1 member in your system procedure library. The DYNAMNBR parameter is now added to this procedure.
2. Authorize the KPDDSCO module by adding KPDDSCO to the system PARMLIB(IKJTSOnn) under the AUTHPGM section and refresh the IKJTSOnn member by issuing the set command (T IKJTSO=nn). You may also request your site's authorized system programmers to perform this step so it can be scheduled with the LPAR's change control processes. This change is required because the KPDPROCC REXX procedure runs in a TSO environment. The KPDDSCO program has to be enabled to execute as an authorized program under TSO.

HKDS621: Support for sample KDSDVSRN and KDSDVSRF VSAM jobs

The TEMS configuration now generates sample VSAM jobs:
- &rhilev.&rte.RKANSAMU(KDSDVSRN)
- &rhilev.&rte.RKANSAMU(KDSDVSRF)

Sample KDSDVSRF VSAM refresh job deletes all the &rvhilev.&rte.RKDS* and the &rvhilev.&rte.RKMS* TEMS VSAM libraries and reallocates and reinitializes a new set. A scenario where these sample jobs may be used is for Remote TEMS reinitialization purposes. If the Remote TEMS VSAM tables are reinitialized and reseeded with product-provided situations that require UADVISOR situations for example, the Remote TEMS gets seeded correctly from the Hub TEMS during initial startup. This avoids having to run any delete SQLs to remove any obsolete product-provided situations from the Remote TEMS VSAM libraries.
                    *** Important ***
This job deletes all TEMS VSAM libraries. Caution should be observed when deciding to run these jobs. Part 1 of KDSDVSRF job deletes the VSAM libraries in the DELEIB step. If you would rather rename the original VSAM libraries (instead of deleting them), use the KDSDVSRN sample job to rename the original TEMS VSAM libraries prior to submitting the KDSDVSRF sample job.

Note: The TEMS must be down when these sample jobs run.

HKDS621: Change in "Minimum extended storage" default value

For a new TEMS RTE configuration, the Minimum extended storage default value of MINIMUM(768000,X) will be used as the initial value. The old default was MINIMUM(300000,X). The MINIMUM parameter indicates the minimum amount of virtual storage that you want to make available to the IBM components communicating with the TEMS. The preferred value may be specified under the "Specify Advanced Configuration Values" panel. This value is then used in

```
   the MINIMUM() parameter generated in the KDSSYSIN member in the
   &rhilev.&rte.RKANPARU library.

   *** Panel Navigation ***
   See Basic Navigation to Tivoli Enterprise Monitoring Server
   (TEMS) Panels
   section for instructions on how to navigate to TEMS menus
   and panels.  Type README RTE on the command line to view
   this section.
.
.

Up or Down to browse or End to return.  Type Print to print, Save to save.
```

E2.   z/OS TEMA (Agent) "Configuration What's New" on-line README:

```
 ------------------------------ README -----------------------------
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  +------------------------------------------------------------------------+
          Common Tivoli Enterprise Monitoring Agent (TEMA)
                     Configuration What's New
  +------------------------------------------------------------------------+


 This file describes configuration enhancements for products that
 support common standalone Agent configuration.  A product that
 supports standalone Agent configuration has the common
 Specify Agent Address Space Parameters option on its main menu.
 This option allows the Agent to run in its own Agent address space.

 If this "What's New" README is generated from the "R README Table of
 Contents" option on the RTE Main Menu, certain runtime members below
 use the product code from the product entry selected from the "Product
Selection Menu" (KCIPPLST).  On the RTE Main Menu, this product entry
is the value that "*** Current product entry selected: ***" label
points to.


  APAR OA27828: Support for blank TCP/IP jobname in KI5INTCP
 The default TCP/IP Started task value is currently an asterisk ('*').
 The TMS:Engine allows selection of the TCP/IP stack either by name or
 by specification of an asterisk, which selects the first active
 stack found.

 TCP/IP (but not TMS:Engine) also allows specification of a blank
 name, which selects the default stack determined by the TCP/IP
 configuration, rather than leaving the decision to the application.
 When the TCP/IP configuration determines the stack to be used,
 TMS:Engine-based applications are subject to load-balancing, as
```

are other TCP/IP applications.

You can now specify the value '#' in the TCP/IP Started task field
on the "Specify IP.PIPE Communication Protocol" and "Specify IP.UDP
Communication Protocol" panels. The value '#' generates a blank
value for the TCP/IP_USERID=' ' &tole parameter in the
&rhilev.&rte.RKANPARU(KI5INTCP) member.

APAR OA27828: Support for TOLERATERECYCLE keyword

A Reconnect after TCP/IP recycle configuration option is now
available on the "Specify Advanced Configuration Values" panel.
Specify Y if you want the Agent address space to reconnect to the
TCP/IP started task automatically without requiring a recycle if the
TCP/IP stack is recycled. When this parameter is set to Y, the
"TOLERATERECYCLE" keyword is added in the KI5INTCP member of
the &rhilev.&rte.RKANPARU library.

If this parameter is set to N, then if the TCP/IP stack used by the
Agent is recycled, then the Agent started task must also be recycled
to re-establish TCP/IP connectivity. The default is N.

APAR OA27369: Improved Agent failover support

The Enable secondary TEMS field from the "Specify Advanced Agent
Configuration Values" panel supports Agent failover. Starting in
TMS:Engine V6.2.1, automatic Agent failover is supported.
Agents built on this level of infrastructure can specify a primary
and a secondary TEMS for Agent connections. If an Agent's
primary TEMS goes offline, the Agent connects to the secondary
TEMS. When the primary TEMS goes back online, the Agent
is automatically reconnected with it.

APAR OA27369: Expanded support for nonstandard parameters

An optional Specify Nonstandard Parameters configuration panel is
available as an F5=Advanced option from the "Specify Advanced
Agent Configuration Values" panel. You can now use the "Specify
Nonstandard Parameters" panel to add, modify, or delete parameters
or parameter options in any member of any runtime library (rather
than just in the KDSENV member of the
&rhilev.&rte.RKANPARU library, as was the
case for the previous release).

APAR OA27369: Persistent Datastore configuration for SMP-sharing RTEs

The Configure persistent datastore (PDS) historical data collection
facility now accesses the PDS data dictionary from TKANPAR for an
SMP-sharing RTE. For that RTE type, a step to copy the PDS data
dictionary to &rhilev.&rte.RKANPAR
is no longer required.

If this is an existing SMP-sharing RTE with products that previously
configured the Persistent Datastore, then it is recommended that the
TEMS Persistent Datastore "Create runtime members" PD#Pxxxx
(if one is configured in this &rte RTE) and the applications'
product-specific pp#Pxxxx Persistent Datastore "Create runtime
members" jobs be regenerated to support configuration accessing the
PDS data dictionary from TKANPAR.

APAR OA27369: Support for en_US.ibm-1047 Language locale codepage

If the z/OS UNIX System Services (USS) codepage (en_US.ibm-1047) is required, then you may specify the actual en_US.ibm-1047 codepage value on the Language locale field on the "Specify Advanced Agent Configuration Values" panel. This specification is then generated as the value for the LANG=&value parameter generated in the &rhilev.&rte.RKANPARU(KDSENV) member.

HKDS621: Support for simplified KPDPROCC Persistent Datastore processing

The Configure persistent datastore (PDS) historical data collection facility now supports a more simplified PDS maintenance procedure. It no longer requires the submission of a KPDPROC2 batch job and the PDS jobcard (KPDJOBC) in &rhilev.&rte.RKANSAMU is no longer required.

If this is an existing RTE with products that previously configured the Persistent Datastore, then the following key PDS members generated by the TEMS Persistent Datastore "Create runtime members" PD#Pxxxx (if one is configured in this &rte RTE) or any of the applications' product-specific pp#Pxxxx Persistent Datastore "Create runtime members" job must be regenerated to support this maintenance procedure rearchitecture:
- &rhilev.&rte.RKANSAMU(KPDPROC1)**
- &rhilev.&rte.RKANSAM(KPDPROCC)
** Note: KPDPROC1 must be refreshed in the system procedure library
        once the RTE is using the rearchitectured
        &rhilev.&rte.RKANSAM(KPDPROCC).
        KPDPROC1 supports the modified and the older versions of
        KPDPROCC for purposes of staged deployment of this
        enhancement.

Important KPDPROCC and KPDPROC1 Migration Considerations:

If this is an existing RTE with products that previously configured the Persistent Datastore, then only one application within this &rte RTE needs to refresh the KPDPROCC and KPDPROC1 members. These are common PDS maintenance members used globally by all products that configured the persistent datastore.

Enablement KPDPROCC and KPDPROC1 Procedures:

After (re)configuring the Persistent Datastore facility and (re)creating the KPDPROC* runtime members, these post-configuration steps must be performed:
1. Copy the generated KPDPROC1 member in your system procedure library. The DYNAMNBR parameter is now added to this procedure.
2. Authorize the KPDDSCO module by adding KPDDSCO to the system PARMLIB(IKJTSOnn) under the AUTHPGM section and refresh the IKJTSOnn member by issuing the set command (T IKJTSO=nn). You may also request your site's authorized system programmers to perform this step so it can be scheduled with the LPAR's change control processes. This change is required because the KPDPROCC REXX procedure runs in a TSO environment. The KPDDSCO program has to be enabled to execute as an authorized program under TSO.

HKDS621: Change in Agent's KI5INVLG member

```
The &rhilev.&rte.RKANPARU(KI5INVLG)
member is now generated with the following comment:
* THIS MEMBER CURRENTLY NOT USED
Previously, this member was generated pointing to the
&rvhilev.&rte.RKI5VLOG VSAM library.
This dataset is no longer in use and is therefore no longer allocated
in brand new runtime environments (RTEs) where this product will be
configured.  Existing configurations may choose to delete its
&rvhilev.&rte.RKI5VLOG VSAM library.
```

HKDS621: Change in "Minimum extended storage" default value

```
For a new Agent RTE configuration, the Minimum extended storage
default value of MINIMUM(256000,X) will be used as the initial
value.  The old default was MINIMUM(150000,X).  The MINIMUM
parameter indicates the minimum amount of virtual storage that you
want to make available to the IBM components communicating with the
TEMS.  The preferred value may be specified under the "Specify
Advanced Agent Configuration Values" panel.  This value is then used
in the MINIMUM() parameter generated in the KI5SYSIN member in
the &rhilev.&rte.RKANPARU library.
.
```

Up or Down to browse or End to return. Type Print to print, Save to save.

F. Product configuration accepts any product-specific parameters

Improved "Specify nonstandard parameters" option

Certain advanced parameters that are not currently externalized in the configurator must be added, modified, or deleted manually outside the control of the z/OS Configuration Tool and are typically overlaid when the configuration jobs are refreshed.

DCF Newsflash Technote #1307480* provides more information on Phase 1 implementation of this enhancement. *Technote link provided in the "Reference Links" section "A. Enhancements referred from 1H08".

An optional Specify Nonstandard Parameters configuration panel is available as an F5=Advanced option from the "Specify Advanced Configuration Values" panel. You can now use the "Specify Nonstandard Parameters" panel to add, modify, or delete parameters or parameter options in any member of any runtime library (rather than just in the KDSENV member of the &rhilev.&rte.RKANPARU library, as was the case for the previous release).

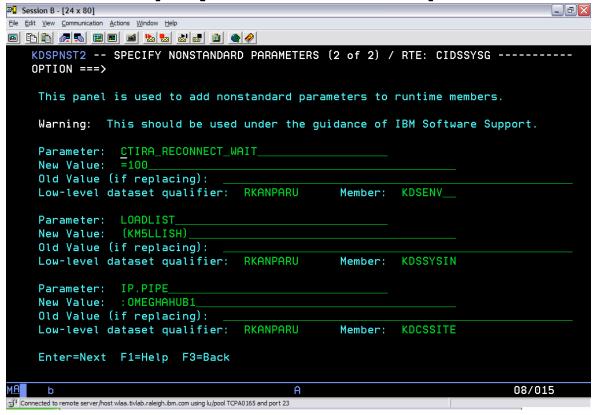Examples of parameters that can now be officially specified in the Configuration Tool:
- Add:
   1. KDS_NCSLISTEN=&value
   2. KDS_HEAP_SIZE=&value
   3. KGL_GMMSTORE=&value
   4. CTIRA_HOSTNAME=&value
   5. CTIRA_HEARTBEAT=&value
   6. CTIRA_ RECONNECT_WAIT=&value
   7. CMS_NODE_VALIDATION=&value
   8. MSG_MODE=KMS

- Insert (KDE_TRANSPORT=\):
   1. "EPHEMERAL:&value" in "&protocol EPHEMERAL:Y USE:Y"
   2. "POOL:&port_range" in "&protocol POOL:&port_range"
   3. "SKIP:&skip_no COUNT:&count_no" in "&protocol PORT:1918
      SKIP:&skip_no COUNT:&count_no"

- Delete (KDS_RUN=\):
   1. "350COMPATMODE" from "KFAXCF.FAXCSRV
      350COMPATMODE,&proxy_position,PLEX;\"

A sample panel of this new function is shown in the following graphic.

F1. z/OS TEMS' "Specify Nonstandard Parameters" panel 1 of 2

F2. z/OS TEMS' "Specify Nonstandard Parameters" panel 2 of 2

```
Session B - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help

    KDSPNST2 -- SPECIFY NONSTANDARD PARAMETERS (2 of 2) / RTE: CIDSSYSG -----------
    OPTION ===>

    This panel is used to add nonstandard parameters to runtime members.

    Warning:  This should be used under the guidance of IBM Software Support.

    Parameter:  CTIRA_RECONNECT_WAIT_____
    New Value:  =100_____
    Old Value (if replacing):  _____
    Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__


    Parameter:  LOADLIST_____
    New Value:  (KM5LLISH)_____
    Old Value (if replacing):  _____
    Low-level dataset qualifier:  RKANPARU      Member:  KDSSYSIN


    Parameter:  IP.PIPE_____
    New Value:  :OMEGHAHUB1_____
    Old Value (if replacing):  _____
    Low-level dataset qualifier:  RKANPARU      Member:  KDCSSITE


    Enter=Next  F1=Help  F3=Back


MA    b                                     A                          08/015
Connected to remote server/host wlaa.tivlab.raleigh.ibm.com using lu/pool TCPA0165 and port 23
```

Additional examples may be seen below.

```
KDSPNST1 -- SPECIFY NONSTANDARD PARAMETERS (1 of 6) / RTE: $FULL --------------
OPTION ===>

 This panel is used to add nonstandard parameters to runtime members.

 Warning:  This should be used under the guidance of IBM Software Support.

 Parameter:  KDS_NCSLISTEN_____
 New Value:  =256_____
 Old Value (if replacing):  _____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Parameter:  KDS_RUN_____
 New Value:  =KFAXCF.FAXCSRV;_____
 Old Value (if replacing):  =KFAXCF.FAXCSRV 350COMPATMODE;_____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Parameter:  KDS_RUN_____
 New Value:  =KFAXCF.FAXCSRV PRIMARY,PLEX;_____
 Old Value (if replacing):  =KFAXCF.FAXCSRV 350COMPATMODE,PRIMARY,PLEX;_____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Enter=Next  F1=Help  F3=Back
==============================================================================



KDSPNST2 -- SPECIFY NONSTANDARD PARAMETERS (2 of 6) / RTE: $FULL --------------
OPTION ===>

 This panel is used to add nonstandard parameters to runtime members.
```

```
 Warning:  This should be used under the guidance of IBM Software Support.

 Parameter:  IP.PIPE_____
 New Value:  :OMEGHAHUB1_____
 Old Value (if replacing): _____
 Low-level dataset qualifier:  RKANPARU      Member:  KDCSSITE

 Parameter:  IP.PIPE_____
 New Value:  :OMEGHAHUB1_____
 Old Value (if replacing): _____
 Low-level dataset qualifier:  RKANPARU      Member:  KDFSSITE

 Parameter:  KDE_TRANSPORT_____
 New Value:  =IP.PIPE EPHEMERAL:Y_____
 Old Value (if replacing): =IP.PIPE PORT:&SVPIPO._____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Enter=Next  F1=Help  F3=Back
===============================================================================


KDSPNST3 -- SPECIFY NONSTANDARD PARAMETERS (3 of 6) / RTE: $FULL --------------
OPTION ===>

 This panel is used to add nonstandard parameters to runtime members.

 Warning:  This should be used under the guidance of IBM Software Support.

 Parameter:  MSG_MODE_____
 New Value:  =KMS_____
 Old Value (if replacing): _____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Parameter:  KDS_RUN_____
 New Value:  =KFAXCF.FAXCSRV BACKUP,PLEX;_____
 Old Value (if replacing):  =KFAXCF.FAXCSRV 350COMPATMODE,BACKUP,PLEX;_____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Parameter:  KDE_TRANSPORT_____
 New Value:  =IP.PIPE PORT:1918 EPHEMERAL:INBOUND_____
 Old Value (if replacing):  =IP.PIPE PORT:1918_____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Enter=Next  F1=Help  F3=Back
===============================================================================


KDSPNST4 -- SPECIFY NONSTANDARD PARAMETERS (4 of 6) / RTE: $FULL --------------
OPTION ===>

 This panel is used to add nonstandard parameters to runtime members.

 Warning:  This should be used under the guidance of IBM Software Support.

 Parameter:  KDE_TRANSPORT_____
 New Value:  =IP.PIPE PORT:1918 EPHEMERAL:Y_____
 Old Value (if replacing):  =IP.PIPE PORT:1918_____
 Low-level dataset qualifier:  RKANPARU      Member:  KDSENV__

 Parameter:  SNA.PIPE_____
 New Value:  _____
 Old Value (if replacing):  :USCACO01.CIDSGLB.CANCTDCS.SNASOCKETS
 Low Low-level dataset qualifier:  RKANPARU      Member:  KDCSSITE

 Parameter:  _____
```

```
 New Value:  _____
 Old Value (if replacing):  _____
 Low-level dataset qualifier:  _____       Member:  _____


 Enter=Next  F1=Help  F3=Back
===============================================================================


```

The corresponding on-line help panels also provide examples of the
different formats that can be specified on the "New Value" and "Old
Values" fields:

Example 1a:
To add a nonstandard configuration parameter:

```
Parameter:  TESTPARM1_____
New Value:  =TESTVAL1_____
Old Value (if replacing):  _____
Low-level dataset qualifier: RKANPARU      Member:  KDSENV__
```

This will result in the line TESTPARM1=TESTVAL1 being added to the
KDSENV member in RKANPARU.

Example 1b:
To add a nonstandard configuration parameter:

```
Parameter:  TESTPARM1_____
New Value:  (TESTVAL1)_____
Old Value (if replacing):  _____
Low-level dataset qualifier: RKANPARU      Member:  KDSSYSIN
```

This will result in the line TESTPARM1(TESTVAL1) being added to the
KDSSYSIN member in RKANPARU.

Example 1c:
To add a nonstandard configuration parameter:

```
Parameter:  TESTPARM1_____
New Value:  TESTVAL1_____
Old Value (if replacing):  _____
Low-level dataset qualifier: RKANCMDU      Member:  KDSSTART
```

This will result in the line TESTPARM1 TESTVAL1 being added to the
KDSSTART member in RKANCMDU.

Example 2a:
To replace a configuration parameter's value:

```
Parameter:  TESTPARM1_____
New Value:  =TESTVAL2_____
Old Value (if replacing):  =TESTVAL1_____
Low-level dataset qualifier: RKANPARU      Member:  KDSENV__
This will result in the line TESTPARM1=TESTVAL1 being replaced by
the line TESTPARM1=TESTVAL2 in the RKANPARU member KDSENV.
```


Example 2b:
To replace a configuration parameter's value:

```
Parameter:  TESTPARM1_____
New Value:  (TESTVAL2)_____
Old Value (if replacing):  (TESTVAL1)_____
```

```
Low-level dataset qualifier: RKANPARU      Member:  KDSSYSIN

This will result in the line TESTPARM1(TESTVAL1) being replaced by
the line TESTPARM1(TESTVAL2) in the RKANPARU member KDSSYSIN
```

Example 3:
To replace a line in the configuration parameter's multi-line value:

```
TESTPARM1=\
    TESTVAL1;\
    TESTVAL2;\
    TESTVAL3
```

To replace TESTVAL2 with TESTVAL4 in the example above, enter the
following. Note: the character string of the old value must be an
exact match for the value to be replaced.

```
Parameter:  TESTPARM1_____
New Value:  =TESTVAL4;_____
Old Value (if replacing):  =TESTVAL2;_____
Low-level dataset qualifier: RKANPARU      Member:  KDSENV__
```

This will result in the following lines in the RKANPARU member KDSENV:

```
TESTPARM1=\
    TESTVAL1;\
    TESTVAL4;\
    TESTVAL3
```

Example 4a:
To delete a configuration parameter:

```
Parameter:  TESTPARM1_____
New Value:  _____
Old Value (if replacing):  =TESTVAL1_____
Low-level dataset qualifier: RKANPARU      Member:  KDSENV__
```

This will result in the line TESTPARM1=TESTVAL1 being deleted from
RKANPARU member KDSENV.

Example 4b:
To delete a configuration parameter:

```
Parameter:  TESTPARM1_____
New Value:  _____
Old Value (if replacing):  :TESTVAL1_____
Low-level dataset qualifier: RKANPARU      Member:  KDCSSITE
```

This will result in the line TESTPARM1:TESTVAL1 being deleted from
RKANPARU member KDCSSITE.

Example 5:
To delete a line in the configuration parameter's multi-line value:

```
TESTPARM1=\
    TESTVAL1;\
    TESTVAL2;\
    TESTVAL3
```

To delete TESTVAL2 in the example above, enter the following.
Note: the character string of the old value must be an
exact match for the value to be replaced.

```
Parameter:  TESTPARM1_____
New Value:  _____
Old Value (if replacing):  =TESTVAL2;_____
Low-level dataset qualifier:  RKANPARU      Member:  KDSENV

This will result in the following lines in the RKANPARU member KDSENV:

TESTPARM1=\
    TESTVAL1;\
    TESTVAL3
```

G. Detailed preinstallation requirements/instructions and upgrade/deployment scenarios

Better documentation roadmap
o ***Tivoli® OMEGAMON XE Monitoring Agents on z/OS Version 4.2 and Messaging Version 7 Quick Start Guide*** – this covers what is contained in the package and which TEMS datafiles to use.
o ***Tivoli® OMEGAMON XE and Tivoli Management Services on z/OS Preinstallation Requirements and Instructions*** – get the change control system set-up done even before the products are installed! Refer to DCF Technote #1318692* for more information. *Technote link provided in the "Reference Links" section ("B. Additional Links").
o ***Tivoli® OMEGAMON XE and Tivoli Management Services on z/OS Upgrade Guide: Chapter 4. Upgrading products in a runtime environment*** - new chapter provides the general order of procedures and describes the required sequence of steps for upgrading products within each of four upgrade scenarios:
  1. **Scenario A:** Upgrade the z/OS monitoring server only in an existing runtime environment
  2. **Scenario B:** Upgrade the z/OS monitoring server and the monitoring agent
  3. **Scenario C:** Install a new agent and upgrade the z/OS monitoring server
  4. **Scenario D:** Upgrade the agent in an existing runtime environment with no z/OS monitoring server configured
o ***Tivoli® OMEGAMON XE and Tivoli Management Services on z/OS Upgrade Guide: Appendix. Batch upgrade example scenario #1: V3.1.0 to V4.2.0*** – new appendix explains that upgrading a number of the OMEGAMON XE monitoring agents from V4.1.0 to V4.2.0 does not require full product reconfiguration. However, if products are being upgraded from V3.1.0 (or earlier) to V4.2.0, you must reconfigure the full product set in each runtime environment but you can quickly reconfigure the entire RTE via batch mode. This new appendix has step-by-step advanced batch migration techniques. The intent is to provide better migration and deployment scenarios on advanced cloning and migration techniques without re-inputting all the previous product configuration values, if customers choose not to upgrade in place and install and configure the upgraded versions in brand new RTEs. More examples will be provided in the future.

Legend

```
pp      = product code
vv      = 1:2 digits of the 3-digit version
xxxx    = RTE JCL suffix
&shilev = Installation high-level qualifier (HLQ)
&thilev = SMP/E target HLQ
&rhilev = Non-VSAM RTE HLQ
&rvhilev = VSAM RTE HLQ
&rte    = RTE name
```

Reference Links

A. Enhancements referred from 1H08:

o **Replay:** Support Tivoli Exchange (STE) – "*ICAT V310.12 and ITM zOS TEMS and Agent Configuration Enhan (LLM091407*)" held on June 4, 2008.
   https://asp22.centra.com:443/GP/main/00000143724e00000119c334a28c9524 Event Password=tiv0li (Note: '0' is a zero.)
o **Download: July 2008 edition of the IBM CCR2 Newsletter** published the playback link from the June 2008 STE presentation.
o **Download:** Additional reference materials are available in DCF Newsflash Technote #1307480 ("*Highlights of Common z/OS Configuration Tool Enhancements for 1H08*") to provide detailed usage of 1H08-related enhancements: http://www-1.ibm.com/support/docview.wss?uid=swg21307480
o **Download:** Additional reference materials are available in DCF Newsflash Technote #1338430 ("*Highlights of Common z/OS Configuration Tool Enhancements for 2H08*") to provide detailed usage of 2H08-related enhancements: http://www-01.ibm.com/support/docview.wss?uid=swg21338430

B. Additional links:

o **Download:** DCF Newsflash Technote #1326770 ("*High Availability z/OS Hub TEMS support*")
   http://www-1.ibm.com/support/docview.wss?uid=swg21326770
o **Download:** DCF Newsflash Technote #1318692 ("*Preinstallation Requirements and Instruction*")
   http://www-01.ibm.com/support/docview.wss?uid=swg21318692
o **Download:** DCF Technote #1290883 ("*Recommended Maintenance Service Levels for OMEGAMON XE products on ITM V6.x*"): http://www-01.ibm.com/support/docview.wss?uid=swg21290883
o **Download:** DCF Technote #1381467 ("*OMXE V420 batch upgrade considerations with Kpp$vvv product tag value*"): http://www-01.ibm.com/support/docview.wss?uid=swg21381467
o **Download:** DCF Technote #1273449 ("*Removing 350COMPATMODE parameter from ITM6.1 (and higher) z/OS TEMS environment*"):
   http://www-01.ibm.com/support/docview.wss?uid=swg21273449
o **Order:**   The PTFs listed on the "Enablement Support" section may be ordered from this link:
   https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp