Check Processing Control System

Enhanced System Manager User's Guide

Release 1

SC31-4002-08

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Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page xiii.

Ninth Edition (May 2002)

This edition is a revision of SC31-4002-07. This edition applies to Release 1 Modification Level 0 of the IBM Check Processing Control System (CPCS) Enhanced System Manager licensed program (Program No. 5799-ESM). This publication is current as of PTF number UQ61765 and other changes. Each change is indicated by a vertical line or slash (revision bar) in the left margin.

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Programming Interface Information

This guide is intended to help the customer install, customize, and maintain the IBM Check Processing Control System (CPCS) Enhanced System Manager.

This guide also documents General-Use Programming Interface and Associated Guidance Information.

General-Use programming interfaces allow the customer to write programs that obtain the services of the Check Processing Control System.

General-Use Programming Interface and Associated Guidance Information is identified where it occurs, either by an introductory statement to the chapter or section or by the following marking:

General-Use Programming Interface

General-Use Programming Interface and Associated Guidance Information...

End of General-Use Programming Interface

Year 2000 Compliance

IBM announces that Enhanced System Manager, Version 1 Release 1, supports Year 2000 at PTF number UQ02394 and APARs AN92626, AQ01172, AQ01320, AQ03051, AQ03479, and AQ03573. This IBM product, when used in accordance with its associated documentation, is designed to be capable of correctly processing, providing, and receiving date data within and between the twentieth and twenty-first centuries. This has been done by allowing the user to set the date format as a default throughout the system.

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About This Book

This book supplies programming reference information for personnel who use the IBM* Check Processing Control System (CPCS) Enhanced System Manager licensed program.

This book presents information about the CPCS Enhanced System Manager feature. It explains how to use the Enhanced System Manager online functions and also describes Enhanced System Manager processing.

Who Should Read This Book?

This book is for system programmers, application programmers, and operational personnel who are experienced with CPCS. For more information about the CPCS environment, see *CPCS General Information*.

How Is This Book Organized?

This book contains the following chapters and appendix:

Chapter 1, “Enhanced System Manager General Information,” describes the Enhanced System Manager online functions, the Enhanced System Manager workflow generation, the Enhanced System Manager starting of tasks, and the Enhanced System Manager supervisor functions.

Chapter 2, “Enhanced System Manager Installation Information,” describes the Enhanced System Manager storage considerations for maintaining the databases used for system automation and the steps for installing Enhanced System Manager on your system.

Chapter 3, “Enhanced System Manager Customization Information,” describes how to:

- Customize the Enhanced System Manager (ESM) profile member
- Add a new workflow database level
- Customize the Online Trace Facility
- Customize workflows, units-of-work, and task profiles
- Make your application start up with ESM (ESM-startable)
- Use Enhanced System Manager User Exits

Chapter 4, “Enhanced System Manager Online Functions,” describes the Enhanced System Manager online function screens.

Chapter 5, “Enhanced System Manager Programming and Diagnostic Information,” describes the application programming interface module for Enhanced System Manager (DKNSMAPI) and the supported service requests.

Appendix A, “Data-Area Layouts for General-Use Programming,” contains the data area layouts for Enhanced System Manager.

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Appendix B, “Messages and Codes,” contains the messages and codes generated by Enhanced System Manager.

Appendix C, “MIS Statistics,” describes how Enhanced System Manager interacts with the IBM product, Application Library Services (ALS), and the MIS Statistics subcomponent.

This book also contains a glossary, a bibliography, and an index.

Related Publications

The following publications contain information that relates to Check Processing Control System (CPCS). For an additional list of relevant publications, see the “Bibliography” on page X-13.

- *IBM Check Processing Control System: General Information*, GH20-1008
  Short Title: *CPCS General Information*

  This publication gives a general introduction to CPCS Version 1 Release 11 and lists all related publications in that library.

- *IBM Check Processing Control System International: General Information*, GC31-2944
  Short Title: *CPCS-I General Information*

  This publication gives a general introduction to CPCS-I and gives related publication information for that library.

Summary of Changes for SC31-4002-08

The main changes for this revision are:

PTF Number: This publication is current with PTF Number UQ61765 and other changes.

Publication Changes:

- Information on Unit-of-Work Generation
- User Exit #9 - Task Completion
- User Exit #10 - Dynamic Workflow Alteration
- Sort pattern definition (SPDEF) records identify the workflows to create and ESM groups the resulting workflows into various types of string categories.
- Additional options on the ESM profile member
- More information on getting ready for ESM autostart

  Removed requirement to change application programs to make them ESM-startable by adding symbolic parameters to the user data portion of the task profile.
- Regular maintenance

Summary of Changes for SC31-4002-07

The main changes for this revision are:

PTF Number: This publication is current with PTF Number UQ50439 and other changes.

- **Dynamic Workflow Alteration (DWA)**

  This new feature of ESM allows workflows to be dynamically altered at the time a unit of work is created. The user may create DWA rules from the SMOF screens. These rules define whether a task should be used, replaced with a different task, or excluded completely based on criteria that the user sets within the rule.
- Regular maintenance

Summary of Changes for SC31-4002-06

The main changes for this revision are:

PTF Number: This publication is current with PTF Number UQ40040 and other changes.

- Regular maintenance
- Enhance the starting of timer-started tasks
- Removed 1000 UOW limit within ESM

Summary of Changes for SC31-4002-04

The main changes for this revision are:

PTF Number: This publication is current with PTF Number UQ15657.

- Regular maintenance
- Addition of three new user exits
  - User exit #6 for ESM End-Prime
  - User exit #7 for WRB Creation
  - User exit #8 for UOW Creation
- Addition of two new keywords for the ESM profile

Summary of Changes for SC31-4002-03

The main changes for this revision are:

- More extensive explanations regarding system defaults.
- Addition of a user exit for ESM ENDPRIME.
- ESM JCL has incorporated name changes.

Summary of Changes for SC31-4002-02

The main changes for this revision are:

PTF Number: This publication is current with PTF Number UQ15657.

Batch Job Tracking/Submission: Enhanced System Manager (ESM) now provides the ability to both submit and track batch jobs. ESM submits the batch job based on the Task Profile information (no different from CPCS Applications), and produces completion messages when the batch job completes processing. ESM also produces completion messages for batch jobs not submitted with ESM.

Task Menus Item Counts and Amounts: ESM now provides a string totaling application (DKNSMST) that may be used to update UOWs and WRBs, with MDS string totals to be displayed on the ESM set of task menus.

Workflow Record Migration Updates: ESM now provides the ability to delete workflow records that are not selected for migration to another workflow definition level. By selecting the REPLACE ALL option of the DKNSMWB menu (Workflow Migration), the user may delete the records not selected. The default method of migration is unchanged.

Load Module Diagnostics Updates: ESM now supports CPCS jobs with JOBLIB statements for the Load Module Diagnostics menus. Also ESM now searches the ALL STEPLIB and JOBLIB data sets (eliminating the artificial limit of 10 libraries).

Dataspace Size Customization: ESM now provides various parameters that allow users to streamline the size of ESM dataspaces.

Time Intervals of One Minute: ESM now allows timer-related tasks to be started on one-minute boundaries.

Summary of Changes for SC31-4002-01

The main changes for this revision are:

- **Year 2000 Changes:**

  Date Customization: CPCS now provides the ability to specify a date format at the system level (as a default). This format is propagated throughout CPCS in reports, screens, and in data sets.

  For more information regarding CPCS code compliance with Year 2000, see “Year 2000 Compliance” on page xiv.

PTF and APAR Numbers: This publication is current as of PTF Number UQ02394 and APAR Numbers AN92626, AQ01172, AQ01320, AQ03051, AQ03479, and AQ03573.

Task Suppression Facility: Enhanced System Manager now provides the ability to globally suppress tasks at critical times (such as, cash letter deadlines) and resume these tasks once the authorized operator wishes to continue normal operations.

CPCS Web Site: Visit us at our CPCS web site: **www.ibm.com/products/cpcs**

Chapter 1. Enhanced System Manager General Information

Overview

Enhanced System Manager, which is an executive-level subsystem of the IBM Check Processing Control System (CPCS) licensed program, supports the CPCS system in the following ways:

- Controls, manages, and tracks the flow of work through the system
- Provides sort pattern analysis for automatic workflow generation
- Performs automatic task initiation
- Manages various databases including workflow, task profile, Unit of Work, etc.
- Controls task processing through passed parameters

Important!

The majority of the functions and facilities described in this publication are initially disabled pending confirmation of the type of environment in which Enhanced System Manager is being installed. See "Step 8: Activate Enhanced System Manager's Functions and Facilities" on page 2-8 for more information on activating all Enhanced System Manager functions and facilities.

The *unit of work*, which is a set of control and identification information for a string of documents,[1] is the basic mechanism by which Enhanced System Manager controls and manages the flow of work through the CPCS system. It is the smallest trackable piece of work in the system. Enhanced System Manager uses two types of units of work: functional and control.

Enhanced System Manager creates a *functional unit of work*, which contains processing information about a CPCS mass data set (MDS) string. Each functional unit of work contains information (such as item count and monetary totals) that Enhanced System Manager gets electronically during capture or processing. Most CPCS processing depends on whether a string is on the CPCS mass data set and is available for processing. For example, during *prime pass*, which is the first pass of an entry through a document processor, the distribution (DKNDIST) module runs only after creation of the input string (I-string), and the entry master list (DKNPLST) module runs only after creation of the merged string (M-string). For more information about DKNDIST and DKNPLST, see the *CPCS Programming and Diagnostic Guide*.

Note: The functional unit of work is not identical to a mass data set string. It contains information about a mass data set string, such as the status of the mass data set string, which could be (D) for deleted if the string no longer exists on the mass data set.

A *control unit of work* determines when a task starts; it is required when the sequence of CPCS processing depends on a nonstring event. For example, the processing sequence might depend on the time of day, the running of a prerequisite task, or CPCS startup.

[1] A string of documents consists of the data records for a group of items related to a CPCS mass data set string.

This chapter introduces Enhanced System Manager. It describes the following parts and processes of Enhanced System Manager:

- Online functions
- Workflow generation functions
- Dynamic Workflow Alteration (DWA)
- Task starting functions
- Unit-of-Work (UOW) generation
- Supervisor functions

Enhanced System Manager Online Functions

The Enhanced System Manager online functions (DKNSMOF) task provides the only operator interface to Enhanced System Manager. As an operator, you can use a series of menu-driven display screens to track and monitor the processing status of work in the system. You can query Enhanced System Manager for information about the status of CPCS tasks and strings. For more information, see Chapter 4, “Enhanced System Manager Online Functions.”

Workflow Generation Function

The workflow generation function provides support services to build the workflows that manage and run the system. The following sections describe the databases and the processing that Enhanced System Manager uses to support and customize this function.

Workflow Database Levels

Enhanced System Manager provides the ability to define up to eight different workflow database levels. This is performed by using a DKNSMDBL macro invocation in the workflow database level module DKNSMDB. Each DKNSMDBL macro invocation defines a new *logical* workflow database level. The term *logical* is used because you can include the same *physical* workflow, task profile, or model workflow data set in multiple workflow database levels. Each workflow database level *must* specify a workflow, task profile, and a model workflow data set. Workflow generation is performed on any level. Workflow migration occurs from any level to any level. For additional information, see “Adding a New Workflow Database Level” on page 3-4.

Workflow Generation Data Sets

The workflow generation function requires the following data sets and maintains them online:

- Model workflow data set
- Workflow data set
- Task-profile data set.

The workflow database includes a set of programs and Enhanced System Manager online function (DKNSMOF) screens that lets you make changes to the defined information. You can browse, edit, delete, or insert data on many of the associated screens. As a replacement for the insert option, some screens display the model option. The model option creates a new entry in the correct database (as an insert) and copies the information from the selected entry to this new entry. You can then edit all the information on the screen. This is a time-saving option that lets you

select an entry that closely resembles the one to be inserted and use the data for that entry as a base for creating the new entry.

The following sections describe the workflow generation function databases.

Model Workflow Database

The CPCS system includes a standard model workflow database that you can use to generate a base system. The model workflow database contains categories for similar types of work. For example, prime-pass I-strings and prime-pass kill D-strings represent two distinct categories. Each category includes a list of tasks that CPCS must perform.

ESM also allows the creation of user model workflows that are unique to the user's shop.

Workflow Database

The workflow database contains entries that represent every possible string name that the DKNSPDEF sort patterns can produce. A supporting feature of the workflow generation function processes the DKNSPDEF data set for workflow creation.

Task-Profile Database

The task-profile database is a collection of task-definition parts. This database contains entries (task profiles) for all customized and default dispatching criteria for each task that is eligible for the starting and tracking of tasks.

Task profiles determine when and how many times a specific task runs. You can specify required units of work, external units of work, task events, and time events in many combinations to tell Enhanced System Manager when to run a task. Examples of time events are: time of day, time interval, cold start, warm start, and end-prime. The grouping level field specifies the number of task copies to run. You can specify only one time event. If you specify more than one, only the last one is used.

Enhanced System Manager uses the task-profile database to build a work-request block (WRB) that defines data requirements and tracks the dispatching criteria to automatically start tasks. Work-request blocks are dynamically built with the information that enables initiation criteria. The work-request block presents a logical view of the work that a task must process and of how it must perform the processing.

Workflow Generation Process

The Workflow generation process requires the following input:

- CPCS sort patterns
- Model workflow database file (with string categories)
- Task-profile database file

Figure 1-1 on page 1-5 shows the levels of control that these required inputs supply to Enhanced System Manager.

Figure 1-1. Levels of Enhanced System Manager Control

The following sections describe the steps that occur during the generation process:

1. The analysis of CPCS sort patterns
2. The customization of workflows, units of work, and task profiles
3. The generation of the workflows
4. The migration of the workflows to production

Sort-Pattern Analysis

A *sort pattern* is a table that a sort routine uses to determine the pocket to which an item should be sorted. The sort patterns that Enhanced System Manager processes are the same standard CPCS sort patterns that the magnetic ink character recognition (MICR) subsystem uses. Enhanced System Manager can process these sort patterns just as they are and does not require you to change them.

The first step in the generation of Enhanced System Manager is to analyze the following sort-pattern definition (SPDEF) records to identify the workflows to create. As ESM analyzes the sort patterns, it groups the resulting workflows into the following types of string categories:

- **The SPDEF P record identifies string categories:**

  01 I-string

  02 E-string

  20 M-string

  21 Interim M-string (01-M)

  22 High-Speed Reject Reentry (HSRR) M-string (50-M)

  23 High Performance Transaction System Balancing Rework M-strings (88-M)

  25 Balanced M-string (99-M)

  30 System Reject D-string

  31 MDIS System Reject D-string (00-D)

  32 Generic Operator Repaired System Reject String

  33 Interim 99-R string

  34 Concatenated Key Entry R-string

  35 Concatenated System Reject Repaired String

- **The SPDEF R record identifies a string category:**

  50 Rehandle distributed string (D-string)

- **The SPDEF K record identifies string categories:**

  70 ONUS Quick Kill D-string

  80 ONUS Kill D-string

  90 Transit Kill D-string

- **The SPDEF J record identifies string categories:**

  40 Consolidated Reject D-string

  42 Reject Repaired Strings

  44 Consolidated Reject Concatenated Repaired String

60 Alternate Reject D-string

62 Alternate Reject Repaired String

64 Alternate Reject Concatenated Repaired String

- **The SPDEF O record identifies special M-strings and a reject D-string.**

As Enhanced System Manager analyzes the sort patterns, it groups the resulting strings into the following types of string categories; note that this list is a numerical listing of all those shown above:

01 I-string
02 E-string
20 M-string
21 Interim M-string (01-M)
22 High Speed Reject Reentry (HSRR) M-string (50-M)
23 High Performance Transaction System Balancing Rework M-string (88-M)
25 Balanced M-string (99-M)
30 System Reject D-string
31 MDIS System Reject D-string (00-D)
32 Generic Operator Repaired System Reject String
33 Interim 99-R string
34 Concatenated Key Entry R-string
35 Concatenated System Reject Repaired String
40 Consolidated Reject D-string
42 Reject Repaired Strings
44 Consolidated Reject Concatenated Repaired String
50 Rehandle Distributed String (D-string)
60 Alternate Reject D-String
62 Alternate Reject Repaired String
64 Alternate Reject Concatenated Repaired String
70 ONUS Quick Kill D-String
80 ONUS Kill D-String
90 Transit Kill D-String

Note: Categories 1-80 that are not used are reserved for IBM use. If you need to create User Categories for workflow of non-standard strings, use category numbers 81-89 and 91-99.

Enhanced System Manager supplies a set of model workflows and task profiles. These models control basic CPCS processing[2]. A *workflow* is a processing flow that lists the CPCS tasks that run for a specific group of strings. Because similar groups of strings require similar types of processing, each group of strings has its own workflow. A *task profile* can contain the following types of detailed information for each task (and each version of a task) in a workflow that runs in CPCS:

- Start parameters
- Task prerequisites
- Timer or time-of-day requirements
- Special-event processing (CPCS ECYC, cold start or warm start).

[2] Basic CPCS processing does not include High Performance Transaction System image processing.

Sort-pattern analysis lets you determine whether the supplied model workflows and task profiles meet the processing needs of your institution. The analysis should address the following questions:

- Do the defined string categories meet the requirements of the sort pattern?
- Do the workflow-defined tasks meet the requirements for each category?
- Do the workflows need any additional task prerequisites?
- Do any nonstandard strings need special processing?
- Do the prime and subsequent passes have any processing differences that are not already reflected in the workflows?
- Do the start parameters meet your processing needs?

The sort-pattern analysis also provides the information that Enhanced System Manager uses to assign the pass-pocket history to the strings.

Workflow Generation

Enhanced System Manager uses the workflow generation function to apply the workflows and task profiles to the sort pattern. The string groups and workflow assignments that result from the generation process form the basis on which the SMSTART function works.

The CPCS sort pattern is input to the generation process. Enhanced System Manager incorporates the sort-pattern number into the unit-of-work name that corresponds to a string. The unit-of-work name is a combination of the pass-pocket history for the CPCS string, the CPCS string type, and the CPCS sort-pattern number. The Enhanced System Manager inquiry screens show the unit-of-work name. In addition, you can generate selected sort patterns or all sort patterns at one time. Enhanced System Manager tracks only the generated sort patterns.

Note: Enhanced System Manager does not control changes to sort pattern members in the DKNSPDEF data set. Changes that cause the creation of new strings may require the regeneration of workflows for the sort pattern. You may have to regenerate the workflows before the next entry is created for the sort pattern. This enables Enhanced System Manager to track the new strings.

Workflow Migration

Enhanced System Manager places the workflow information that results from generation in the *development level* of the workflow database. However, the workflow database also includes a *production level*. The two levels allow sort-pattern generation and subsequent workflow and task-profile customization to occur at the development level without affecting active production flows. You must use the Enhanced System Manager online functions to migrate the workflows from development to production after customization and validation.

Note: It is possible to migrate from any level to any other level (for example, from production to development).

Before you capture any entries on the new system, run the initial generation of the CPCS sort patterns and the customization of the resulting workflows. This processing sequence lets Enhanced System Manager track all entries to the generated sort patterns. Enhanced System Manager tracks only those sort patterns that were generated and migrated from development to production.

Figure 1-2 on page 1-9 provides a visual explanation of the generation of Enhanced System Manager.

Figure 1-2. Generation of Enhanced System Manager

Dynamic Workflow Alteration

ESM allows workflows to be altered at the time a UOW is created for a string. This is accomplished by setting up Dynamic Workflow Alteration rules from the SMOF screens.

When a string is created, ESM attempts to build a UOW for the string and to set up the tasks for the UOW from the workflows defined for the sort pattern. ESM checks the DWA rules that have been created and decides whether to use the task in the workflow, whether to replace it with another task, or whether to exclude the task altogether.

Enhanced System Manager Task Starting Feature

The *Enhanced System Manager task starting feature* combines user-defined task definitions, scheduling criteria, and sort patterns into a controlling Enhanced System Manager created database. The feature provides a flexible mechanism for starting CPCS tasks automatically at the correct time and for processing the correct strings. You can use the Enhanced System Manager online function screens to query this and other Enhanced System Manager databases to monitor the flow of work through the CPCS system and to change user-defined task definitions and scheduling criteria.

To start a task automatically, Enhanced System Manager uses the workflow generation function to perform preliminary Enhanced System Manager workflow generation and the task starting function to perform task run-time scheduling. During *preliminary generation*, Enhanced System Manager identifies the strings that can be produced and associates them with a processing flow. The *task run-time scheduling* process provides the interface between CPCS string creation and task initiation that Enhanced System Manager needs to run the tasks that are associated with the processing flows during the creation of the strings. Although task run-time scheduling is a dynamic process, it is solely dependent on the results of the generation process.

Task Run-Time Scheduling

Functional units of work and control units of work are first defined to Enhanced System Manager through the generation process, in which workflows and task profiles are associated with a string category. A functional unit of work, a control unit of work, or both, define the task-initiation criteria and the strings that the task processes. Enhanced System Manager groups the required functional or control units of work for each task into a *work-request block*, which specifies the task that runs and determines when it runs. Work-request blocks are dynamically built with the information that enables initiation criteria. A work-request block presents a logical view of the work that a task must process and determines how it must perform the processing.

Enhanced System Manager tracks units of work to determine when all start criteria that the work request block specified are satisfied, so that task initiation can occur. The following sections describe unit-of-work tracking and task initiation.

Unit-of-Work Tracking

Enhanced System Manager task processing consists of tracking and task initiation. The combination of task profile and workflow for the task determines how initiation occurs: automatically or manually. Even if Enhanced System Manager does not start the task automatically, Enhanced System Manager can perform tracking to determine when all the start criteria are met.

Enhanced System Manager tracks only generated units of work (see "Workflow Generation Data Sets" on page 1-4) and assigns a processing status to each:

Pending Initially, all **control** units of work are pending.

Ready For a functional unit of work, the ready status indicates that the created string exists on the MDS. For a control unit of work, the ready status indicates that a nonstring event was met (for example, the time of day, the timed interval, or a prerequisite task successfully completed).

Deleted The deleted status, which is only meaningful for a functional unit of work, indicates that the created string was deleted from the MDS. Deletion can occur manually or through another CPCS task.

Note: Most Enhanced System Manager online function screens use a letter code to indicate the type of unit of work and the status of the unit of work:

- Unit of work
  - Functional (F)
  - Control (C)
- Status
  - Pending (P)
  - Ready (R)
  - Deleted (D)

The unit-of-work inquiry/management screens (see Chapter 4, "Enhanced System Manager Online Functions") let you process a manageable group of work. You can browse and edit unit-of-work information. The unit-of-work selection criteria screen requires you to select at least one criterion. This prevents you from requesting an inquiry on all units of work in the system, which would show you too much data at one time.

MICR capture starts unit-of-work tracking in Enhanced System Manager. Although, after generation, Enhanced System Manager recognizes the strings that the sort pattern creates, Enhanced System Manager does not know the critical entry number and subset number for those strings until after MICR capture occurs. As MICR closes an I-string or a subset I-string after capturing it, Enhanced System Manager receives the entry number and the subset number. Using this information, Enhanced System Manager creates the unit-of-work records. This process repeats for each prime-pass I-string or subset I-string on each System-Manager-generated sort pattern.

If the workflow database does not contain the sort pattern, Enhanced System Manager does not create units of work; thus, no additional Enhanced System Manager processing occurs for the strings created on that sort pattern.

Note: For Enhanced System Manager to identify the units of work to create, you must perform Enhanced System Manager generation on sort patterns that Enhanced System Manager is to process. You must then migrate those generated workflows from the development level to the production level and activate the production workflows.

Task Initiation

The sequence in which Enhanced System Manager tracks tasks depends on their status queue:

- Pending
- Ready
- Complete

All tasks start in the pending queue. They then move to the ready queue when all units of work (functional and control) for a task that the work-request block defines are ready for processing. Enhanced System Manager then automatically starts the ready tasks that the task profile flagged for automatic start. Those tasks that are not flagged for automatic start remain in the ready queue until you start them manually. For more about work-request blocks, see page 1-9.

After automatic or manual task initiation occurs, the task moves from the ready queue to the complete queue, even when the task does not successfully complete and the task generates a nonzero system or user return code.

The task inquiry/management screens let you browse and edit queue and task information. As with the unit-of-work inquiry/management screens, a variety of selection criteria is available to you. For more information about the task inquiry/management screens, see Chapter 4, “Enhanced System Manager Online Functions.”

Default-Mode Task Initiation: The starting of tasks occurs, based on the parameters that the task profiles define and on the workflow generation process. If there are no specified customization criteria (that is, control units of work), the system runs in full default mode (only functional units of work determine task initiation). If workflows are not generated, no dispatching or tracking occurs in Enhanced System Manager.

Customization-Mode Task Initiation: For customized flows, Enhanced System Manager builds a work-request block with associated dispatching-criteria data. Dispatching-criteria data falls into two categories: functional units of work and control units of work. Functional units of work contain data about CPCS strings. Control units of work are defined on the DKNSMS2-01 and DKNSMS2-02 screens. They determine when a task dispatch occurs.

Note: This function does not require unique screens, but it uses those screens that the workflow generation and Supervisor functions provide for initialization, customization, diagnostics, and control.

MVS Batch Job Scheduling Support

ESM provides the ability to include MVS batch jobs as part of your overall CPCS workflow. These batch jobs are submitted, tracked, and controlled in the same manner as CPCS application tasks. If they are included in an ESM workflow, ESM schedules the task, submits the task when its dispatching criteria are met, and tracks the job until the job terminates. See “Adding and Scheduling MVS Batch Jobs” on page 3-15 for a detailed description of using this ESM facility.

System Restart and Recovery

Enhanced System Manager automatically restores all databases at the point of termination.

Processing Restriction

The Enhanced System Manager starting of tasks function has a processing restriction. Enhanced System Manager uses the DKNATASK module to dispatch tasks in a workflow. The CPCS parameter MAXTASKS controls the number of tasks that can be active in the system at the same time. DKNATASK queues the additional requests that are beyond the MAXTASK value.

Unit-of-Work (UOW) Generation

ESM generates a UOW for strings that meet certain criteria. If those criteria are not met, a UOW has to be generated by either a UOW GENERATE API call, or from the SMOF screen. These alternate methods of having a UOW generated are described in the following sections:

- See “DKNSMC2-01–UOW Generation” on page 4-88
- See “Unit-of-Work (UOW) - GENERATE Service Request” on page 5-14

ESM goes through a process called Entry Initialization when a string is closed on the mass data set, and the string is created by DKNMICR or DKNDFTI. During Entry Initialization, ESM creates the UOW for the string and sets up the internal ESM information for that entry.

Subsequent strings for that entry have a UOW generated automatically, provided:

1. The string is opened for output.
2. The string must be in Close status (ZBFLAG3 = `X'FF'` or `X'00'`).
3. The task creating the string must be marked ESM startable or trackable in the DKNBLDL.
4. SMMULT must be set in the DKNBLDL to have multiple UOWs generated by the same task.

If the Entry Initialization has not occurred, a UOW is not generated automatically. If the UOW GENERATE call is made, or the UOW GENERATE is attempted from the SMOF screens, the criteria listed above must be met, or the UOW generation fails.

Supervisor Functions

Enhanced System Manager includes the following supervisor functions that should have access restricted to the supervisory staff:

- End-Prime
- Unit of Work (UOW) Generation
- Event Management
- Feature Management
- Site Management
- Diagnostic Facility (only for use in problem determination)
- Task Suppression Facility

The following sections explain these functions.

End-Prime Controlling Data Capture

The end-prime function lets an authorized operator indicate that all data capture has been completed for a given cycle. An end-prime restriction inhibits any additional prime-pass MICR data capture for that cycle after you activate the end-prime function. This affects the grouping of units of work created after the end-prime restriction is activated. The CPCS cycle data set is updated to indicate the end-prime status.

Note: When you use the MICR begin user exit that contains the correct logic for your institution, you can start MICR data capture for a cycle after you activate the end-prime function, bypassing the default end-prime restriction. The CPCS sample exit BEGNEXIT supplies a sample of this type of logic. For information about bypassing the end-prime restriction using that sample logic, see the *CPCS Customization Guide*.

The end-prime restriction applies to all types of MICR data capture, including prime pass, HSRR, CDMP, and DEFT. The restriction does not apply to MICR subsequent-pass processing because Enhanced System Manager identified that data during prime-pass capture.

Before you activate the end-prime function for a cycle, determine whether prime-pass data capture for that cycle is waiting to start. If data capture is not waiting to start, you can activate the end-prime function. Enhanced System Manager does not track units of work or the tasks that operate on those units of work for prime-pass data captured after end-prime has been set.

An authorized operator can use the end-prime (DKNSMC1-01) screen to change the end-prime indicator from deactivated (D) to pending (P). While the indicator is in a pending state, prime-pass data capture cannot occur. However, the operator can reset the end-prime indicator to the deactivated state. Immediately before Enhanced System Manager dispatches the first end-prime dependent task, Enhanced System Manager changes the end-prime indicator, by cycle, from pending to active.

Unit-of-Work (UOW) Generation Function

The UOW Generation function lets an authorized operator create a unit of work for a string that is recovered through DKNRCVY or some other method. Generating a UOW allows Enhanced System Manager to start tracking a mass data set string. This enables Enhanced System Manager to control and initiate tasks associated with the string.

The UOW Generation function consists of three screens: DKNSMC2, DKNSMC3 and DKNSMC4.

DKNSMC3 enables the operator to:

- Type in a string name, or
- Type in the string's cycle (and/or entry and/or string type)

If the operator types the string name, the DKNSMC4 screen appears, allowing the operator to specify which workflow database to use to generate the UOW.

If the operator types in a cycle, a list of strings from the Mass data set with that cycle appears on the DKNSMC3 screen. The operator can then choose *one* of the strings. The DKNSMC4 screen then appears allowing the operator to specify which workflow database to use while generating the UOW.

Event Management

The event management facility lets an authorized operator subscribe Enhanced System Manager internal modules to specific events. This allows the authorized operator to log trace events to the Enhanced System Manager log, thus creating an online trace facility.

Feature Management

The feature management facility allows activation and deactivation of the CPCS features defined in the CPCS Feature Table.

Site Management Facility

Enhanced System Manager has a site management facility that provides an authorized operator the capability of switching all pending and ready work request blocks and all units of work from a specific processing site to an alternate processing site.

Diagnostic Facility

Enhanced System Manager provides a diagnostic facility to aid in problem determination with various parts of the CPCS system. This facility should be protected by the CPCS security system and should be used only under the direction of IBM personnel for problem determination.

Task Suppression Facility

Enhanced System Manager provides the ability to globally suppress tasks at critical times (such as, cash letter deadlines) and to resume these tasks once the authorized operator wishes to continue normal operations. ESM allows operators to create ***Task Suppression Rules***, which are used to suppress tasks that have field values that match those specified in the task suppression rule (for example, Task Name, Cycle, Entry, Sorter, etc.). Once a task suppression rule is created, all tasks

that “match” the rule are automatically suppressed when they become (R)eady to be started.

When a task suppression rule is deleted, ESM releases all tasks that were suppressed as a result of that rule, and starts those tasks that are to be started by ESM. If another task suppression rule is in effect that matches any of these tasks, the task is automatically suppressed again as a result of the suppression rule that is still active.

ESM also provides automatic start and stop times to allow task suppression rules to automatically become active at specific times of the processing day.

Note: If you have UOW Grouping on and a string type or pocket history is specified in the Task Suppression rule, the rule may have unexpected results for tasks that allow multiple UOWs to be grouped together.

Chapter 2. Enhanced System Manager Installation Information

Overview

This chapter describes the Enhanced System Manager considerations for system storage, including how to calculate the size and number of expanded storage areas, and the use of Data-in-Virtual services to back up all database information.

This chapter also describes the installation steps for allocating Enhanced System Manager data sets and for generating the required database files.

System Storage Considerations

Enhanced System Manager uses virtual storage, expanded storage, and Data-in-Virtual services to build and maintain the databases used for system automation. All critical Enhanced System Manager data objects are backed up to linear VSAM data sets (from memory or expanded storage) using the MVS/ESA Data-in-Virtual services facility. The size and number of these data objects can vary depending on the CPCS MDEF macro and the parameter, `MAXTG`. The `MAXTG` parameter from the MDEF macro defines to CPCS the number of tracer groups the system can handle. For more information on the MDEF macro and all its parameters, see the *CPCS Customization Guide*.

Important!

The DKNSMAL2 jobs must be run (with updated space requirements) each time that MAXTG, or the ESM profile fields for MAX UOWs or MAX WRBs, is changed. You must then do an ESM initialization or cold-start CPCS.

Calculating the Number of Expanded Storage Areas

Each entry captured is assigned units of work, and these units of work are stored in MVS expanded storage areas. Enhanced System Manager tracks the units of work and various application tasks and can start them. You can calculate the number of expanded storage areas you need by using the formulas described in this section.

Enhanced System Manager creates three expanded storage areas for its three primary data objects. Enhanced System Manager also creates an MVS data space for each string processed as a result of various APIs that require Enhanced System Manager to return an MVS data space to the calling application. These three primary expanded storage areas and the variable number of MVS data spaces resulting from Enhanced System Manager APIs make up the total number of expanded storage areas that Enhanced System Manager creates during processing. Only the three primary areas remain active throughout the life of the entire CPCS job. The others are deleted when the calling application has completed processing the data in the data space.

Calculating the Size of Expanded Storage Areas

This section helps you calculate the amount of expanded storage you want the system to generate for your application.

Enhanced System Manager creates three primary data objects to perform its functions. Each data object is stored in one of the three primary expanded storage areas. The space required for each of these three areas is determined using several variables, some of which are user defined as part of the customization of

Enhanced System Manager. The following sections describe the formulas used to determine the space required for each data object.

Calculating UOW Database Size

Enhanced System Manager creates two types of UOWs–functional and control. Both types of UOWs are stored in the database; therefore, both should be considered when determining the value to specify in the Enhanced System Manager profile for the “maximum UOWs per tracer” position. The following is the formula for calculating the maximum amount of space to store the required UOWs:

```
uows_per_block = 14

max_uows = "UOWS_PER_TRACER value from the ESM Profile".
           The default is 1024.

max_entries = "value from the ESM Profile".
              The default is the CPCS MAXTG value.

overflow_intervals = "value from the ESM Profile".
                     The default is max_entries.

max_blocks = (max_uows / uows_per_block) "rounded up"

uow_bytes_per_tracer = (max_blocks * 4096)

database_intervals = (max_entries + overflow_intervals + 1)

max_bytes_for_uows = (uow_bytes_per_tracer * database_intervals)
```

Calculating WRB Database Size

Enhanced System Manager creates task records for each task that is tracked or started. The following is the formula for calculating the maximum amount of space to store the required WRBs:

```
wrbs_per_block = 13

max_wrbs = "TASKS_PER_TRACER value from the ESM Profile".
           The default is 1024.

max_entries = "value from the ESM Profile".
              The default is the CPCS MAXTG value.

overflow_intervals = "value from the ESM Profile".
                     The default is max_entries.

max_blocks = (max_wrbs / wrbs_per_block) "rounded up"

wrb_bytes_per_tracer = (max_blocks * 4096)

database_intervals = (max_entries + overflow_intervals + 1)

max_bytes_for_wrbs = (wrb_bytes_per_tracer * database_intervals)
```

Calculating TLR Database Size

Enhanced System Manager creates task list records (TLRs) for each link between a UOW and a task record that represents a task to process that UOW. The following is the formula for calculating the maximum amount of space to store the required TLRs:

```
tlrs_per_block = 146

max_tlrs = (max_uows * 5)

max_entries = "value from the ESM Profile".
              The default is the CPCS MAXTG value.

overflow_intervals = "value from the ESM Profile".
                     The default is max_entries.

max_blocks = (max_tlrs / tlrs_per_block) "rounded up"

tlr_bytes_per_tracer = (max_blocks * 4096)

database_intervals = (max_entries + overflow_intervals + 1)

max_bytes_for_tlrs = (tlr_bytes_per_tracer * database_intervals)
```

Calculating TOTAL Database Size

The following is the formula for the calculation of the maximum amount of space required to store the all required data objects:

```
total_bytes = max_bytes_for_uows +
              max_bytes_for_wrbs +
              max_bytes_for_tlrs
```

Changing MVS/ESA System Defaults

The MVS/ESA system has default limits for data space and hiperspace use. ESM should work with the default limits. If your installation has modified these limits in the MVS installation exit, IEFUSI, you may have to modify them. If your installation's default limits are too low, ESM will not come up when CPCS is started. If ESM does come up, your default limits are fine and no action is necessary.

If you must modify the MVS/ESA default limits, refigure the sizes using the calculations on the previous pages. The default limits must be set larger than the calculations.

You should alter the following limits:

1. Default data space and hiperspace size. It is specified in blocks of 4K bytes and must be in the range of X'00000001' to X'0002D980'. The IBM-supplied default is 956K (X'000000EF' x 4K).
2. Maximum combined size for all user key data spaces and hiperspaces owned within an address space (in megabytes). The system-supplied default and the maximum that can be specified is (2^{24})-1 megabytes.

3. Maximum number of user-key data spaces and hiperspaces that can exist at any given time for an address space. The system-supplied default is 50. The maximum number that can be specified is (2^{32})-1. ESM creates three (3) dataspaces that exist the entire time ESM is running.

These limits can be overridden in the MVS/ESA IEFUSI installation exit. These limits should only be changed if the ESM space calculations are larger than the limits. See the *MVS/ESA System Programming Library: Installation Exits* manual for additional information on the IEFUSI exit.

Data-in-Virtual (DIV) Considerations

Enhanced System Manager uses DIV to back up all database information on linear VSAM data sets. You allocate these data sets during the Enhanced System Manager installation processes. See “Step 2: Change the DKNSMASM Member to Meet Installation Standards” on page 2-8 for more information.

For Step 2, DKNSMAL2 may need modification based on your expanded storage area calculations.

Expanded Storage Area Backup

DKNSMAL2 allocates three linear VSAM data sets for use by DIV to back up expanded storage data. These data sets are referred to by the ddname specified in the CPCS runtime JCL.

- **UOWDATA** contains all data related to units of work processed in the system.
- **WRBDATA** contains all data related to CPCS application tasks that have run or will run in the system.
- **TLRDATA** contains all data that associates the data in the UOWDATA data set with the data in the WRBDATA data set.

Use the following formulas with the calculation results from the previous sections to calculate the maximum required space for the UOWDATA, WRBDATA, and TLRDATA data sets.

UOWDATA

```
3380_cylinders = max_bytes_for_uows / 614,400

3390_cylinders = max_bytes_for_uows / 737,280
```

WRBDATA

```
3380_cylinders = max_bytes_for_wrbs / 614,400

3390_cylinders = max_bytes_for_wrbs / 737,280
```

TLRDATA

```
3380_cylinders = max_bytes_for_tlrs / 614,400

3390_cylinders = max_bytes_for_tlrs / 737,280
```

Memory Backup

DKNSMAL2 allocates one linear VSAM data set that DIV uses to back up data in memory that accesses the data in expanded storage. This data set is referred to by the ddname specified in the CPCS runtime JCL for HSADATA.

HSADATA

# of Tracer Groups		3380 Cylinders		3390 Cylinders	
MAXTG	Active	Primary	Extents	Primary	Extents
50	10	7 trk	1 trk	6 trk	1 trk
75	15	7 trk	1 trk	6 trk	1 trk
100	20	7 trk	1 trk	6 trk	1 trk
200	40	8 trk	1 trk	7 trk	1 trk
500	100	11 trk	1 trk	10 trk	1 trk
1000	250	16 trk	1 trk	14 trk	1 trk

Other Memory Backup DIV Data Sets

The size of the data sets allocated by DKNSMAL2 should not be modified during installation. The size of these data sets should be changed only when you are notified by IBM Service Personnel.

Enhanced System Manager Installation Steps

The following installation steps tell you how to complete the initial product installation, generate the customized modules, allocate the Enhanced System Manager data sets that it requires, and to generate the required data base files from the samples provided.

The following assumptions are made when referencing the Enhanced System Manager data sets:

- All the Enhanced System Manager data sets are put on Volume *xxxxxx*. Use a volume label defined for your installation.
- All the Enhanced System Manager data sets are assigned a high-level qualifier of *ESM.V01R01*.

Important!

You can install Enhanced System Manager with the default qualifier of *ESM.V01R01*, or you can change the qualifier to meet the requirements of your installation. If you change the qualifier, you must review all the JCL members referenced to ensure you are using the correct qualifier before you run the jobs. Also, all allocation jobs attempt to delete data sets before allocating them. If the delete step fails, the step completion code is reset to zero.

Step 1: Install the Enhanced System Manager Libraries

In this step, you install the Enhanced System Manager libraries using the instructions provided in the Program Directory.

Step 2: Change the DKNSMASM Member to Meet Installation Standards

In this step, you must change the DKNSMASM assemble/link-edit procedure in *ESM.V01R01*.SDKNSAM1 to reference your CPCS installation libraries as well as your Enhanced System Manager installation libraries.

Step 3: Change the DKNSMCOB Member to Meet Installation Standards

In this step, you must change the DKNSMCOB COBOL compile/link-edit procedure in *ESM.V01R01*.SDKNSAM1 to reference your CPCS installation libraries as well as your Enhanced System Manager installation libraries.

Step 4: Assemble, Compile, Link-edit all Source Modules

In this step, you assemble, compile, and link-edit the Enhanced System Manager source-delivered modules and user exits, using the DKNSMGEN JCL in *ESM.V01R01*.SDKNSAM1.

Step 5: Allocate ESM System Files

In this step, you generate ESM system files and the ESM profile. The JCL is in member DKNSMAL3 in *ESM.V01R01*.SDKNSAM1.

Step 6: Allocate the Enhanced System Manager Data Sets

In this step, you allocate the production data sets for the workflow, task profile, and unit-of-work notepad databases. You also allocate the linear VSAM data sets used to back up the Enhanced System Manager databases. You should use the data set storage requirements that meet the needs of your financial institution. See “System Storage Considerations” on page 2-3 for additional information. The JCL is in member DKNSMAL2 in *ESM.V01R01*.SDKNSAM1.

Step 7: Generate the Development Data Sets

In this step, you generate and load the development workflow, task profile, and model workflow data sets. The JCL is in member DKNSMAL4 in *ESM.V01R01*.SDKNSAM1.

Step 8: Activate Enhanced System Manager’s Functions and Facilities

Contact the IBM Payment Solutions CPCS Support Center to receive your installation’s unique password. This password activates the Enhanced System Manager functions and facilities. Before contacting IBM, however, start CPCS to obtain an ESMLOG. Print the first page of the ESMLOG to fax to IBM.

Step 9: Update CPCS Master Task Generation (CPCS Release 11 ONLY)

In this step, you inform the CPCS system that ESM should be started during normal CPCS startup. Do this by specifying the `SMACT=ESM` parameter during the CPCS Master Task Generation.

Note: This may only be performed in the CPCS Release 11 environment, as ESM is shipped with CPCS-International (CPCS-I); CPCS-I assumes ESM should be started.

Step 10: Update CPCS Runtime JCL

In this step, you must specify the data set names allocated in the previous installation steps in the CPCS runtime JCL. The sample JCL member is in DKNSMRDS in *ESM.V01R01*.SDKNSAM1.

Important!

You must place the Enhanced System Manager load module library in front of your CPCS load module library to ensure the correct load modules are executed.

Enhanced System Manager is automatically started on CPCS startup, and the start type defaults to the CPCS start type (COLD, WARM, etc.). However, the start type for Enhanced System Manager can be changed by using the correct positional CPCS startup JCL parameter that is reserved for ESM. For the exact position of the ESM parameter, refer to the “CPCS Startup JCL Definition” section of the *CPCS Customization Guide*. This parameter may be specified as one of the following values:

blank Default to CPCS start type

INIT ESM completely initializes all files and data areas (equivalent to a CPCS COLD start but only for ESM).

INDX ESM completely initializes and rebuilds the UOW and task record index tables.

Step 11: Regenerate the CPCS System Help File

Refer to the correct CPCS installation manual (depending on product):

- For CPCS V1R11, *CPCS Installation Guide*, GA34-2178
- For CPCS-International, *CPCS-I MVS/ESA: Installation Guide*, GC31-2942

Using the appropriate step in the CPCS installation instructions for “Generating the System Help File,” modify the JCL referenced as follows:

- For CPCS V1R11, uncomment the DKNISMH1 DD card.
- For CPCS-I, uncomment the DKNISMH2 DD card.

Follow the instruction in the appropriate CPCS installation guide to regenerate the System Help file.

Step 12: Regenerate the CPCS System Message File

Refer to the correct CPCS installation manual (depending on product):

- For CPCS V1R11, *CPCS Installation Guide*, GA34-2178
- For CPCS-International, *CPCS-I MVS/ESA: Installation Guide*, GC31-2942

Using the appropriate step in the CPCS installation instructions for “Generating the System Message File,” modify the JCL referenced as follows:

- For CPCS V1R11, uncomment the DKNSMMG1 DD card.
- For CPCS-I, uncomment the DKNSMMG2 DD card.

Follow the instruction in the appropriate CPCS installation guide to regenerate the System Message file.

Chapter 3. Enhanced System Manager Customization Information

Overview

This chapter describes the use of the Enhanced System Manager profile that may be customized to your environment.

This chapter also describes how to start up and track your application by Enhanced System Manager and how to use the Enhanced System Manager user exits to further customize your environment.

Customizing the ESM Profile Member

The ESM profile is a user-created, partitioned data-set member used to control selected functions of ESM.

Keyword	Description
NAME=	This parameter is the 16-character system name that identifies ESM to the MVS system when performing cross-memory functions. This system name is **Not Required** if you are not using ESM to control batch jobs. This 16-character system name value must conform to the rules for system-wide user name tokens, as documented by MVS.
PASSWORD=	The IBM supplied password that allows full function within ESM.
MAX_ENTRIES=	The maximum number of CPCS entries for the CPCS System. This parameter will default to the CPCS MAXTG value.
OVERFLOW_INTERVALS=	The maximum number of “extra” entry space that is used in the event that a single entry’s UOWs/WRBs/TLRs will not fit in the defined space for that entry. This parameter defaults to the ESM MAX_ENTRIES value.
UOWS_PER_TRACER=	The maximum number of UOWs (both functional and control) for each CPCS tracer.
TASKS_PER_TRACER=	The maximum number of tasks for each CPCS tracer.
USER_GROUPING_EXIT=	The User Level Grouping Exit Name.
MIS_STATISTICS_EXIT=	The MIS Statistics Exit Name.
MDS_COUNTRY_EXIT=	The Dataspace *Country Specific* Exit Name.
MDS_ITEM_EXIT=	The Dataspace *Item by Item* Exit Name.
MANUAL_READY_TASK_EXIT=	The Manual Ready Task Update Exit Name
END_PRIME_USER_EXIT	The ESM End-Prime User Exit Name

MIS= The options for Management Information Statistics are NO (default) or YES.

UOW_GROUPING
The option of whether or not you want to group UOWs together for tasks within the CPCS system. Disabling this option, by specifying UOW_GROUPING=NO, results in ESM no longer anticipating future UOWs, subsequent passes, etc.

This means that each task in the CPCS system is assigned only one UOW for each invocation. The default for this option is UOW_GROUPING=YES.

WRB_CREATE_USER_EXIT=
The name of the WRB Creation user exit

UOW_CREATE_USER_EXIT=
The name of the UOW Creation user exit

BATCH_JOB_JCL_MEMBER=
The name of the member that contains the control JCL for MVS batch jobs. The sample shipped with CPCS is sample member DKNSMBJJ.

BATCH_JOB_SUBMISSION_DD=
The DD that identifies the data set where MVS Batch Job JCL is stored. Typically, this is the DKNSUBMT DD. If this is changed, make sure the CPCS run JCL contains the DD statement.

OPERATOR_VERIFICATION=YES/no
This parameter sets whether the operator must press ENTER to verify an action from the task queue screens DKNSMT1, DKNSMT2, and DKNSMT3. The default is “YES”, which requires that the operator must press ENTER to confirm the operation is really required.

Note: This parameter does not affect the TASK ZAP operation of the DKNSMT2 screen. The operator must always confirm that a TASK ZAP is required.

PCTL_CALL_ALLOWED=NO/YES
YES allows ESM to make PCTL calls to obtain the tracer group information for HSRR/prime fields in the SMOF task queue screens. NO does not allow ESM to make PCTL calls. The HSRR/prime fields of the ESM SMOF task screens are left blank.

DWA_DECISION_USER_EXIT=*xxxxxxxx*
The variable, *xxxxxxxx*, is the name of the DWA user exit.

TASK_COMPLETION_EXIT=*xxxxxxxx*
The variable, *xxxxxxxx*, is the name of the task completion exit used by ESM.

Adding a New Workflow Database Level

The Enhanced System Manager Workflow database is defined by entries in the Enhanced System Manager workflow database module (DKNSMDBL). Each of these entries is created by using the DKNSMDBL macro. This macro creates a *logical* workflow database level. The physical VSM data sets are associated with the database description using the ddname of the physical data set. One physical data set can be part of multiple logical levels.

The following steps are necessary to create a new workflow database level:

1. Using the DKNSMAL3 JCL as a guide, allocate a new set of workflow, model workflow, and task profile data sets to use for the new level. If you use an existing data set in the new level, allocation is not needed for that data set.
2. Add the new data sets and ddnames to the CPCS runtime JCL.
3. Change the workflow database module (DKNSMDB) by using the DKNSMDBL macro to specify the new database level.
4. Assemble the workflow database module (DKNSMDB) using DKNSMGEN in *ESM.V01R01*.SDKNSAM1.
5. Start CPCS.

DKNSMDBL macro

The syntax for the DKNSMDBL macro and the supported parameters follow:

Figure 3-1. Format of the DKNSMDBL Macro

Name	Macro	Parameters
label	DKNSMDBL	[TYPE=*type of expansion requested (***DATA**| **DSECT***)*]
		[,LEVEL=*database level description*]
		[,LVLABBR=*database level abbreviation*]
		[,EDIT=*edit enabled indicator (***Y**| **N**]
		[,TPDDN=*Task Profile Data Set DDNAME*]
		[,WFDDN=*Workflow Data Set DDNAME*]
		[,MWDDN=*Model Workflow Data Set DDNAME*]

The following list describes the DKNSMDBL parameters:

TYPE=*type of expansion requested*
This parameter indicates the type of macro expansion to perform. Valid values for this parameter are DATA and DSECT. DATA expands the database level table entry. DSECT expands the assembler DSECT for mapping a database level table entry. If no TYPE is specified, the DSECT expansion is the default.

LEVEL=*database level (logical)*
This parameter is the database level description, which is a maximum of fifteen characters in length.

LVLABBR=*database level abbreviation*
This parameter is a two-character abbreviation for the defined database level.

EDIT=*edit allowed indicator*
This parameter is the indicator that specifies whether or not the edit functions (Model, Delete, Edit, etc.) are allowed for this database level. If an EDIT parameter is not specified, N (No editing allowed), is used as the default.

TPDDN=*Task Profile Data Set DDNAME*
This parameter is the data set definition name (DDNAME) for the Task Profile VSAM data set associated with this *logical* database level. A single Task Profile data set can be associated with more than one logical database level.

WFDDN=*Workflow Data Set DDNAME*
This parameter is the data set definition name (DDNAME) for the workflow VSAM data set associated with this *logical* database level. A single workflow data set is associated with more than one logical database level.

MWDDN=*Model Workflow Data Set DDNAME*
This parameter is the data set definition name (DDNAME) for the model workflow VSAM data set associated with this logical database level. A single model workflow data set is associated with more than one logical database level.

Customizing the Online Trace Facility

The Enhanced System Manager event database is defined by entries in the Enhanced System Manager event management database module (DKNSMEVD). Each of these entries is created by using the DKNSMEVE macro. This macro defines a unique event in the CPCS system. The SMEVERPT macro is then used to query the event table during processing to determine whether or not the specified event is being traced at that time. If it is, all requested information is then “snapped” to the ESM log for debugging.

Note: To dramatically increase performance of the event query process, IBM recommends a user modification to the SMEVERPT macro to add the following type of code fragment. This allows the system to index directly into the event management table rather than perform a sequential search using the event name.

```
         AIF   ('&EVENT' NE '????????').E####
&HEXID   SETC  '####'
         AGO   .GOTHXID
```

Where:

???????? Is the event name

Is the hexadecimal ID you wish to use for your event

The following steps are necessary to create a new trace event in the CPCS system and to enable tracing of that event:

1. Using the DKNSMEVE macro, define a new event in the Enhanced System Manager Event Table (DKNSMEVD)
2. Using the DKNSMGEN sample JCL, assemble/link-edit the DKNSMEVD module.
3. Using the SMEVERPT macro, specify the desired information to be “snapped” to the Enhanced System Manager log and assemble/link-edit the modified module.
4. Start CPCS.
5. Enter SMOF.
6. Select option 4 (Supervisor Functions).
7. Select option 3 (Event Management).
8. (S)elect the newly created event.

9. (S)ubscribe the Enhanced System Manager log manager (DKNSMLOG) to that event.
10. The selected event is now being traced. The output is placed into the Enhanced System Manager log.

DKNSMEVE macro

The syntax for the DKNSMEVE macro and the supported parameters follow:

Figure 3-2. Format of the DKNSMEVE Macro

Name	Macro	Parameters
label	DKNSMEVE	[TYPE=*type of expansion requested* (**DATA**| **DSECT**)] [,FUNCT=*the function of the expansion* (**BEGIN**|**ELEMENT**|**END**|**DATAREA**)] [,EVENAME=*the event name*] [,EVEDESC=*the event description*] [,EVEID=*the event hexadecimal identifier*] [,PREFIX=*three character label prefix* (**EVE**)]

The following list describes the DKNSMEVE parameters:

TYPE=*type of expansion requested*
This parameter indicates the type of macro expansion to perform. Valid values for this parameter are DATA and DSECT. DATA expands the database level table entry. DSECT expands the assembler DSECT for mapping a database level table entry. If no TYPE is specified, the DSECT expansion is the default.

FUNCT=*the function of the macro expansion*
This parameter indicates the function of the macro expansion that is desired. Valid values for this parameter are BEGIN, ELEMENT, END, and DATAREA. BEGIN expands the event table header area. ELEMENT expands an individual event definition area using no labels to reference the individual fields. END expands the event table trailer area. DATAREA expands an individual event definition area but does include labels to reference the individual fields. This parameter is the default and when used in conjunction with the TYPE= field, allows for the expansion of a fully addressable data record or DSECT.

EVENAME=*the name of the specified event*
This parameter indicates the desired 8 character name of the event.

EVEDESC=*the description of the specified event*
This parameter indicates the desired 32 character description of the event.

EVEID=*the hexadecimal id of the specified event*
This parameter indicates the desired 8 character hexadecimal id for the event.

PREFIX=*the 3 character label prefix*
This parameter indicates the desired 3 character prefix to be used when creating the generated labels for each of the fields in the macro expansion. The default prefix is “EVE.”

SMEVERPT macro (inline form)

The inline form of the SMEVERPT macro

The syntax for the inline form of the SMEVERPT macro and the supported parameters follow:

Figure 3-3. Format of the SMEVERPT Macro

Name	Macro	Parameters
label	SMEVERPT	[TYPE=*type of expansion requested* (**DATA**|**DSECT**)] [,FUNCT=*the function of the expansion* (**SNAP**|**REPORT**)] [,EVENT=*the event name*] [,SMCSV=*the ESM Callable Services Vector address*] [,OCOPL=*the CPCS OCO parameter list*] [,WAIT=*the wait for completion indicator* (**YES**|**NO**)] [,FIELDS=*(id,addr,length><,id,addr,length...>)*] [,PREFIX=*three character label prefix (***SME***)*] [,MF=**I**]

The following list describes the SMEVERPT parameters:

TYPE=*type of expansion requested*
This parameter indicates the type of macro expansion to perform. Valid values for this parameter are DATA and DSECT. DATA expands the database level table entry. DSECT expands the assembler DSECT for mapping a database level table entry. If no TYPE is specified, the DSECT expansion is the default.

FUNCT=*the function of the macro expansion*
This parameter indicates the function of the macro expansion that is desired. Valid values for this parameter are REPORT, and SNAP. REPORT indicates that SMEVERPT should report the event if the event is being traced. SNAP indicates that SMEVERPT should report the event immediately even if the event is not being traced.

EVENT=*the name of the event*
This parameter indicates the name of the event that has occurred. This name should correspond to the name of an event in the event table unless FUNCT=SNAP is also specified.

SMCSV=*smcsv addr*
This parameter specifies the address of the Enhanced System Manager Callable Services Vector control block. This parameter is required.

OCOPL=*CPCS OCO Parameter List addr*
This parameter specifies the address of the CPCS Object Code Only (OCO) parameter list. This parameter is required.

WAIT=*wait for completion indicator*
This parameter specifies whether the event reporting macro should wait for the event to be reported or let the notification process asynchronously. Valid values for this parameter are NO and YES. YES indicates that the macro should wait for the system to process the request to completion before returning control to the calling program. NO indicates that the macro should allow the system to

process the notification request asynchronously, allowing the calling program to continue normal processing earlier. NO is the default value.

FIELDS=*(id,address,length><,id,address,length...>)*
This parameter specifies the list of fields to “snap” to the Enhanced System Manager log. Each entry in the list must contain an ID (8-character name of the field), an address (the address of the field to “snap”), and a length (the length of the field to snap).

PREFIX=*the 3-character label prefix*
This parameter indicates the desired 3-character prefix to be used when creating the generated labels for each of the fields in the macro expansion. The default prefix is “SME.”

MF=*I*
This parameter indicates the macro format. The default format is “I.”

SMEVERPT macro (execute form)

The execute form of the SMEVERPT macro

The execute form of the SMEVERPT macro can refer to and modify the parameter list constructed by the list form of the macro. The syntax for the execute form of the SMEVERPT macro and the supported parameters follow:

Figure 3-4. Format of the SMEVERPT Macro

Name	Macro	Parameters
label	SMEVERPT	[TYPE=*type of expansion requested* (**DATA**|**DSECT**)] [,FUNCT=*the function of the expansion* (**SNAP**|**REPORT**)] [,EVENT=*the event name*] [,SMCSV=*the ESM Callable Services Vector address*] [,OCOPL=*the CPCS OCO parameter list*] [,WAIT=*the wait for completion indicator* (**YES**|**NO**)] [,FIELDS=*(id,addr,length><,id,addr,length...>)*] [,PREFIX=*three character label prefix* (**SME**)] [,MF=(**E**,*list addr)*]

The following list describes the SMEVERPT parameters:

TYPE=*type of expansion requested*
This parameter indicates the type of macro expansion to perform. Valid values for this parameter are DATA and DSECT. DATA expands the database level table entry. DSECT expands the assembler DSECT for mapping a database level table entry. If no TYPE is specified, the DSECT expansion is the default.

FUNCT=*the function of the macro expansion*
This parameter indicates the function of the macro expansion that is desired. Valid values for this parameter are REPORT, and SNAP. REPORT indicates that SMEVERPT should report the event if the event is being traced. SNAP indicates that SMEVERPT should report the event immediately even if the event is not being traced.

EVENT=*the name of the event*
This parameter indicates the name of the event that has occurred. This name should correspond to the name of an event in the event table unless FUNCT=SNAP is also specified.

SMCSV=*smcsv addr*
This parameter specifies the address of the Enhanced System Manager Callable Services Vector control block. This parameter is required.

OCOPL=*CPCS OCO Parameter List addr*
This parameter specifies the address of the CPCS Object Code Only (OCO) parameter list. This parameter is required.

WAIT=*wait for completion indicator*
This parameter specifies whether the event reporting macro should wait for the event to be reported or let the notification process asynchronously. Valid values for this parameter are NO and YES. YES indicates that the macro should wait for the system to process the request to completion before returning control to the calling program. NO indicates that the macro should allow the system to process the notification request asynchronously, allowing the calling program to continue normal processing earlier. NO is the default value.

FIELDS=*(id,address,length><,id,address,length...>)*
This parameter specifies the list of fields to “snap” to the Enhanced System Manager log. Each entry in the list must contain an ID (8-character name of the field), an address (the address of the field to “snap”), and a length (the length of the field to snap).

PREFIX=*the 3-character label prefix*
This parameter indicates the desired 3-character prefix to be used when creating the generated labels for each of the fields in the macro expansion. The default prefix is “SME.”

MF=(E,*list addr)*
This parameter specifies the list form of the SMEVERPT macro. ***list addr*** defines the area that the system is to use for the parameter list.

SMEVERPT macro (list form)

The syntax for the SMEVERPT macro and the supported parameters follow:

Figure 3-5. Format of the SMEVERPT Macro

Name	Macro	Parameters
label	SMEVERPT	[,NUMFLDS=*the number of fields to expand*] [,MF=*L*]

The following list describes the SMEVERPT parameters:

NUMFLDS=*the number of fields to expand*
This parameter indicates the maximum number of fields to expect from any inline or execute forms of the macro.

MF=L
This parameter specifies the list form of the SMEVERPT macro.

Customization of Workflows, Units of Work, and Task Profiles

The *model workflow database* (model workflow), which is created during the installation of Enhanced System Manager, contains string categories and their associated tasks. The *task-profile database* (task profile), which is also created during the installation of Enhanced System Manager, can contain detailed information for each task (and each version of a task) in a workflow that runs in CPCS.

CPCS processing requires many versions of a task. Therefore, the task specification in the workflow contains a version number for each task. For example, CPCS might run Version 01 of DKNDIST to produce a full-string distribution and then it might run Version 02 of DKNDIST to produce a consolidated R-string.

Enhanced System Manager provides the Enhanced System Manager online function screens with options that let you customize a model file. You can customize the workflows in the model file before generation, or you can customize the workflows for the individual strings (units of work) after generation. You can also use the screens to edit (that is, add, change, or delete) a task profile to fit the environment.

If the changes are generic across the category of work, you should customize the model workflow file. However, if the needed change is specific (for example, a change to a task in a workflow for a single sort pattern), you should customize the units of work after generation of that specific sort pattern is complete.

Note: Because of a mandatory relationship among the Enhanced System Manager generation process, tracking, and the SMSTART function, changes to a CPCS sort pattern should occur only when no strings for that sort pattern (any cycle) are active. The Enhanced System Manager generation process uses the sort pattern to predict strings and associated endpoints. Failure to correctly coordinate sort-pattern changes with Enhanced System Manager processing can cause exception conditions, such as unprocessed strings and uninitiated tasks, to occur.

The following sections explain how to use the Enhanced System Manager online functions to customize a model workflow file, a unit of work, and a task profile.

Model Workflow Customization

To customize the model workflows, perform the following steps:

1. To start the DKNSMOF task, type the SMOF command at the CPCS ready prompt and press **ENTER**.
2. When the Enhanced System Manager main menu screen appears (shown on page 4-4), select the **Workflow Definition** option.
3. When the workflow component menu screen appears (shown on page 4-47), select the **Model Workflow** option.
4. When the database selection menu - workflow appears (shown on page 4-48), select an Enhanced System Manager workflow database for processing.
5. When the model workflow list screen appears (shown on page 4-70), select a category to change.

6. When the model workflow detail screen appears (shown on page 4-72), you can customize the workflows associated with the category that you selected in step 5.

Workflow Customization

To customize the workflows, perform the following steps:

1. To start the DKNSMOF task, type the SMOF command at the CPCS ready prompt and press **ENTER**.
2. When the Enhanced System Manager main menu screen appears (shown on page 4-4), select the **Workflow Definition** option.
3. When the workflow component menu screen appears (shown on page 4-47), select the **Workflow** option.
4. When the database selection menu - workflow appears (shown on page 4-48), select an Enhanced System Manager workflow database for processing.
5. When the workflow selection criteria screen appears (shown on page 4-50), select a sort pattern and correct workflow inquiry parameters.
6. When the workflow entries list screen appears (shown on page 4-51), it shows a list of workflows that match the selection criteria that you specified on the workflow selection display screen. From this list, select a workflow to customize.
7. When the workflow record detail screen appears (shown on page 4-53), you can change the flow for the selected workflow.
8. To customize another workflow, repeat the process.

Note: This type of customization is possible only after the actual generation of the sort patterns under Enhanced System Manager. It is described here to better compare and contrast it to the modification of the model workflow file.

Task Profile Customization

To customize a task profile, perform the following steps:

1. To start the DKNSMOF task, type the SMOF command at the CPCS ready prompt and press **ENTER**.
2. When the Enhanced System Manager main menu screen appears (shown on page 4-4), select the **Workflow Definition** option.
3. When the workflow component menu screen appears (shown on page 4-47), select the **Task Profile** option.
4. When the database selection menu - workflow appears (shown on page 4-48), select an Enhanced System Manager workflow database for processing.
5. When the task-profile list - production screen appears (shown on page 4-60), select a task to customize from the list of tasks.
6. When the task-profile detail - production screen appears (shown on page 4-62), customize the initiation criteria and the start parameters.

Unloading Workflows and Data Sets to Flat Files

If you must unload the ESM VSAM data sets for the workflows, model workflows and task profiles, you can use the sample JCL DKNSMJWU to unload the data to flat files. The sample JCL must be modified to meet your system standards.

DKNSMJWU allocates flat files for the appropriate ESM VSAM data sets and unloads the contents of the VSAM data sets to the flat files.

Application Task Customization

The following sections describe the steps necessary to define an application task to Enhanced System Manager so that all invocations of that task may be tracked and/or started by Enhanced System Manager.

Getting Ready for Enhanced System Manager Autostart

Two methods of getting ESM to automatically start a task are available to you; each method passes the start parameters differently. You must decide which method you will use to accomplish the automatic start.

The first method involves changing your task so that it obtains the parameters it needs from the control blocks ESM provides at the time the task is started. This method is the most efficient, and more data is available to the task. With this method, you have the ESM WRB record, and the UOW records for any strings for which the task is to be started. This method is described in “Steps to make an application task ESM-startable.”

The second method allows ESM to autostart a task that has been coded to be autostarted by some other method than ESM. By filling in the parameters in the User Data area of the task profile, parameters are sent to the task at start time in the APTCB field TCBSPARM. The parameters sent in TCBSPARM can be static data. Certain fields, such as string name, cycle, bank, etc., can be filled out dynamically by ESM at task startup by coding symbolic data in the User Data field of the task profile.

Note: DKNATASK only transfers the first 56 characters from the ESM USER DATA to TCBSPARM.

For examples of supported symbolic data fields and how to use them, see “DKNSMS2-01–Task-Profile Detail” on page 4-62.

With this second method, you must then modify the DKNBLDL to specify SMSTART=1 for the task, and update the ESM workflows and task profiles to have the task started.

Steps to make an application task ESM-startable

The following steps are required so that your application task may be automatically started by Enhanced System Manager:

1. Specify SMSTART=1 on the APCB macro for your application task in the DKNBLDL module. This parameter identifies your task to Enhanced System Manager as potentially a task for startup.
2. Code your application task to accept an Enhanced System Manager work-request block (WRB) upon invocation. The presence of an Enhanced

System Manager work-request block is indicated by a non-zero address in the TCBSMWRB (assembler) field or the APTCB-SMGR-WRB-ADDRS (COBOL) field of your CPCS Application Task Control Block (APTCB).

3. If a WRB address is present, it is mapped by the DKNWRB DSECT (assembler) or the DKNCWRB copybook (COBOL).
4. The address of the first unit-of-work in the work-request block is located in the WRBFUOWF (assembler) field or the WRB-ADDRS-FRST-FUNCTN (COBOL) field of the work-request block.
5. If a UOW address is present, it is mapped by the DKNUOWDR DSECT (assembler) or the DKNCUWDR copybook (COBOL).
6. Each UOW contains the address of the next UOW within the WRB in the UOWDNEXT (assembler) field or the UOW-DR-NEXT-UWDR (COBOL) field. A binary zero value in this field indicates the end of list is reached.

   Notes:

   a. *Startable* tasks are *trackable* by Enhanced System Manager even if they are not started by Enhanced System Manager.

   b. Task Profile User data can be accessed in the TCBSPARM (assembler) field or the APTCB-SPARM (COBOL) field of the APTCB without using the provided Work Request Block User Data Field.

      This user data can be used as start parameters passed to the application task.

The modules DKNESMA and DKNESMC in the *ESM.V01R01*.SDKNSAM2 library may be used as examples of how to change your application to be ESM-startable. To execute these modules, assemble and compile them using the DKNSMGEN JCL and add the following entries into your DKNBLDL module:

```
APCB  NAME=DKNESMA,SMSTART=1,AUTO=1
APCB  NAME=DKNESMC,SMSTART=1,AUTO=1
```

You must then add these entries to the workflow of a Unit of Work to actually have them execute and display a message for each UOW processed. They are written to process a single, or multiple, UOWs but may *only* be started with ESM.

For more information on customizing your DKNBLDL module, see the *CPCS Customization Guide*.

Tracking Your Application with Enhanced System Manager

The following parameter is required to make your application *trackable* by Enhanced System Manager:

Specify SMTRACK=1 on the APCB Macro for your application task in the DKNBLDL module. This parameter identifies your application task as *trackable* by Enhanced System Manager and also indicates that this task can **never** be started by Enhanced System Manager.

Notes:

1. For tasks that complete multiple Enhanced System Manager work request blocks due to a single invocation, specify SMMULT=1 on the APCB macro in addition to either SMSTART or SMTRACK for that application.
2. Tasks that have neither SMTRACK nor SMSTART specified are not tracked by Enhanced System Manager.
3. Do *not* code either of these parameters unless the task is in an ESM workflow.

Obtaining Amounts for Workflows

Since monetary amounts are usually not known at the time the task information is created for a new unit of work, the amount fields display 0.00 on the DKSNMT1, DKNSMT2, and DKNSMT3 screens. If you wish to display accurate amounts, you may do so by using DKNSMST, the ESM String Totaler.

To use DKNSMST, you must put DKNSMST in the DKNBLDL table and reassemble the BLDL table.

You may then create a task profile for DKNSMST with the SMOF menu DKNSMS1. Model a new task profile, changing the task information to indicate it is for DKNSMST. The UOW Grouping and Grouping Level should both be set to 1. After creating the task profile for DKNSMST, select it and migrate the task profile to Production.

Next, modify the UOW workflows for which you wish to obtain amounts. Insert the task DKNSMST in the workflow. After you have modified the workflows, you must migrate them to production to use them.

Adding and Scheduling MVS Batch Jobs

You may use ESM to schedule, submit, and track MVS batch jobs via the normal workflow capabilities that you use to perform these tasks on CPCS applications. Take the following steps to enable this facility:

1. Update the DKNSMBJJ sample member to conform to your installation standards. You may save the sample member under a different name. If you wish to use the member with the different name, you must update the ESM profile as indicated in step 5.
2. Place the updated DKNSMBJJ member into the DKNSUBMT CPCS data set referenced in the CPCS runtime JCL. You may use another data set in place of the DKNSBMT data set. If you do this, you must update the ESM profile member as indicated in step 5. You must also add a DD statement to the CPCS runtime JCL for the new data set.
3. Ensure that the CPCS job is APF authorized as well as the STEPLIB data set referenced in the DKNSMBJJ, since the cross memory facilities used during this process require this level of authorization.
4. Modify the existing ESM Task Profile and Workflow data sets to include the batch job member names as if they were CPCS applications.
5. If you are using a different JCL member in step 1, or a different DKNSUBMT data set in step 2, you must modify the ESM profile. See “Customizing the ESM Profile Member” on page 3-3 for detailed instructions on how to modify the ESM profile.

After you have completed these steps, ESM will schedule, submit, and track these jobs.

Security Administration Customization

Enhanced System Manager uses the security functions supplied for CPCS by calling the CPCS Security Interface module (DKNMAYI) with one of the following resource identifiers (see Figure 3-6):

Figure 3-6. Security Resource Identifiers

Resource	Description
SMENDPRM	Authority to change end-prime status
SMUOWEDT	Authority to edit a unit of work
SMUOWGEN	Authority to generate a unit of work
SMTSKCAN	Authority to cancel a task
SMTSKSTR	Authority to start a task
SMTSKHLD	Authority to hold a task
SMTSKREL	Authority to release a task
SMTSKFRC	Authority to force a task to ready (R)
SMTSKRST	Authority to restart a task
SMWFLEDT	Authority to edit workflows
SMWFLDEL	Authority to delete workflows
SMWFLGEN	Authority to generate workflows
SMWFLMIG	Authority to migrate workflows
SMFEATUR	Authority to access the feature management facility
SMEVENTS	Authority to access the event management facility
SMSITE	Authority to access the site management facility
SMDIAGNS	Authority to access the diagnostic facility
SMTSKSUP	Authority to access the task suppression facility
SMTSKZAP	Authority to zap a task to a complete status
SMWFLRUL	Authority to add or delete a Dynamic Workflow Rule

For additional information on the CPCS RACF structure, see the *CPCS Customization Guide*.

User Exits

The following sections describe the user exits provided by Enhanced System Manager.

User Exit #1 for User Level Grouping

This exit allows the modification of one or two eight-character user-defined fields into each unit of work (UOW) and the associated work-request blocks (WRBs). You can use the user data to group units-of-work by user field #1, user field #2, a combination of the fields, or neither of the fields. For example:

```
User Field #1 = SITE A
User Field #2 = SHIFT 2
```

User Field grouping is specified in each Enhanced System Manager task profile.

Environment

This exit is given control within mass data set services TCB, and can be detrimental to system performance.

Point of Processing

This exit point is called prior to creating the unit-of-work record for a newly created string.

Activation

A single user level grouping exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Exit Point Parameter List

Figure 3-7. Enhanced System Manager User Exit #1 Exit Point Parameter List. This table presents the format and characteristics of the exit point parameter list passed to Enhanced System Manager User Exit #1

Name	Type	Length	Description
Parameter List Structure ID	Character	8	Constant value of SMX01ID. It is the data structure identifier.
User Field #1 Data Area	Character	8	The data area is filled in by the user exit corresponding to user grouping field #1.
User Field #2 Data Area	Character	8	The data area is filled in by the user exit corresponding to user grouping field #2.
Work Area Address	Fullword	4	Address of the provided 100 byte user exit work area

Register Contents When Control Is Passed to the Exit Routine

R0 Not applicable

R1 Parameter List:

Word 1 (+00) Address of the calling applications APTCB.
Word 2 (+04) Address of the Enhanced System Manager User Exit #1 exit point parameter list.

R2 – R12	Not applicable
R13	Caller's save area address
R14	Return address
R15	Address of Enhanced System Manager User Exit #1. The exit entry point address.

Register Contents When Control Is Passed Back to Enhanced System Manager

R0	Not applicable
R1	Not applicable
R2 – R13	Restored to same values as on entry
R14	Not Applicable
R15	Return code as described below:

00	Notifies Enhanced System Manager to ignore the user data fields.
04	Notifies Enhanced System Manager to include the data passed in user field #1.
08	Notifies Enhanced System Manager to include the data passed in user field #2.
12	Notifies Enhanced System Manager to include the data passed in both user fields #1 and #2
16	Notifies Enhanced System Manager to ignore the user data fields due to an error that occurred during the exit routine processing.

Note: Message DKNSMAIX30002, which includes the exit routine name, is displayed on the supervisor's terminal and written to the scroll log when return code 16 is returned to Enhanced System Manager.

Other Programming Considerations

1. The data passed in the user data fields must be formatted for display (EBCDIC).
2. The ESTAE routine for the calling application is invoked in the event of an abnormal termination.

Example

Member DKNSMX01, in the *ESM.V01R01*.SDKNSAM2 PDS, may be used as an example when coding assembler User Level Grouping exit routines.

Important!

Inefficient code may affect document processor performance.

The mass data set services TCB terminates if an abend occurs within this exit routine.

User Exit #2 for MIS Statistics Processing

This exit allows the modification of ESM MIS records that are to be sent to MIS. The formatted MIS record is sent to the user exit. The exit may modify fields or mark records so they are not sent to MIS.

Environment

This exit is given control when an event that DKNSMMIS has subscribed to (through the Event Management subsystem) has occurred, and the event record has been formatted into an MIS record. This exit is called synchronously from DKNSMMIS.

Point of Processing

This exit may be called before an ESM MIS record is sent to MIS.

Activation

A single MIS Statistics exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Register Contents When Control Is Passed to the Exit Routine

R0	Not applicable
R1	Address of MIS Record to be used
R2 – R5	Not applicable
R6	MIS Record Base
R6 – R12	Not applicable
R13	Caller’s save area address
R14	Return address
R15	Address of Enhanced System Manager User Exit #1–the exit entry point address

Register Contents When Control Is Passed Back to Enhanced System Manager

R0	Not applicable
R1	Not applicable
R2 – R13	Restored to same values as on entry
R14	Not applicable
R15	Return code as described below:

00	Notifies Enhanced System Manager to send the unmodified record to MIS
04	Notifies Enhanced System Manager to send the modified record to MIS
08	Notifies Enhanced System Manager to NOT send the record to MIS
12	Notifies Enhanced System Manager to not use the user exit any more

Other Programming Considerations

1. No checking is done on the MIS record returned from the user exit.
2. The ESTAE routine for the calling application is invoked in the event of an abnormal termination.

Example

Member DKNSMX02, in the *ESM.V01R01*.SDKNSAM2 PDS, may be used as an example when coding assembler MIS Statistics Processing exit routines.

User Exit #3 for Unit-of-Work Data Space Codeline Data Manipulation

This exit allows for the data to be represented in the Mass Data Set one way (as defined by XREC) and to be presented to the requester in a UOWDS another way (as defined by SMXREC*xx*), where *xx* is the country code. Source code must be shipped for compilation against the CPCS CLIB, but it shouldn't necessarily be modified by the customer.

Environment

This exit is given control by Enhanced System Manager during certain API requests that involve the UOWDS.

Point of Processing

This exit point is called for each string record after reading the Mass Data Set or just prior to writing the Mass Data Set. It uses the D08MDSRA buffer as input on READs, placing the output in the D08UDSRA buffer upon completion. It uses the D08UDSRA buffer as input on WRITEs, placing the output in the D08MDSRA buffer. Refer to Figure A-8 on page A-12 for the content of the exit control block (DKNSMD08).

Activation

A codeline manipulation exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Notes:

1. This exit is required for a successful Enhanced System Manager startup.
2. This exit is potentially affected by a regeneration of the Mass Data Set.

Register Contents When Control Is Passed to the Exit Routine

R0	Not applicable
R1	DKNSMD08 Enhanced System Manager Exit Control Block
R2 – R13	Not applicable
R14	Return address
R15	Address of Enhanced System Manager User Exit #3. The exit entry point address.

Register Contents When Control Is Passed Back to Enhanced System Manager

R0	Not applicable
R1	Not applicable
R2 – R13	Restored to same values as on entry
R14	Not applicable
R15	Return code as described below:

Other Programming Considerations

The ESTAE routine for the calling application is invoked in the event of an abnormal termination.

Example

Member DKNSMX03 in the *ESM.V01R01*.SDKNSAM2 PDS, may be used as an example when coding assembler Data Space Codeline Data Manipulation exit routines.

User Exit #4 for Bank UOWDS String Record Data Manipulation

This exit allows for the string record data within the UOWDS to be modified on READs prior to presentation to the user of UOWDS APIs and restored prior to WRITEs.

Environment

This exit is given control by Enhanced System Manager during certain API requests that involve the UOWDS.

Point of Processing

This exit point is called for each string record after reading the Mass Data Set or just prior to writing the Mass Data Set. It uses the D08UDSRA buffer as input and output on READs and WRITEs. This exit has the capability to modify (M) records (flagging the fields modified), insert (I) records before the current record, or exclude (E) a record from the process. Also, on OPENs, the exit is given control and modification of the output string name is allowed. It uses D08OSTRT as input for the output string name and places its modifications into D08OSTRF. Last, this exit is invoked on RDIRs and WDIRs to allow for any process control. Refer to Figure A-8 on page A-12 for the content of the exit control block (DKNSMD08).

Activation

A single UOWDS API request item exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Register Contents When Control Is Passed to the Exit Routine

R0	Not applicable
R1	DKNSMD08 Enhanced System Manager Exit Control Block
R2 – R13	Not applicable
R14	Return address

R15 Address of Enhanced System Manager User Exit #4. The exit entry point address.

Register Contents When Control Is Passed Back to Enhanced System Manager

R0 Not applicable

R1 Not applicable

R2 – R13 Restored to same values as on entry

R14 Not applicable

R15 Return code as described below:

Non-zero return (R15 or D08RETCD) is handled as a failure (not interpreted but included in message DKNSMDS120002).

Other Programming Considerations

The ESTAE routine for the calling application is invoked in the event of an abnormal termination.

Example

Member DKNSMX04 in the *ESM.V01R01*.SDKNSAM2 PDS, may be used as an example when coding assembler String Record Data Manipulation exit routines.

User Exit #5 for Manual Task Update

This exit allows for the modification of a manual task when its status is changed to (R)eady. This exit may modify any of the supported fields in the Work Request Block, such as priority. It may also produce messages to the CPCS supervisor alerting the supervisor that a manual task is ready to be executed.

Environment

This exit is given control when a manual task's status is changing to a (R)eady status.

Point of Processing

This exit is called immediately prior to the manual task status change to (R)eady.

Activation

A single manual task update exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see information, see “Customizing the ESM Profile Member” on page 3-3.

Note: You must restart CPCS to make the changes effective when a new version of the current exit routine is installed.

Register Contents When Control Is Passed to the Exit Routine

R0 Not applicable

R1 Address of User Exit parameter list

Word 1 (+00) Address of a “fake” APTCB for use ONLY in displaying messages

Word 2 (+04) Address of the Work Request Block record (DKNWRB)

R2 - R12	Not applicable
R13	Caller's save area address
R14	Return address
R15	Address of ESM User Exit #5—the exit entry point address

Register Contents When Control Is Passed Back to ESM

R0	Not applicable
R1	Not applicable
R2 - R13	Restored to same values as on entry
R14	Not applicable
R15	Return code as described below:

00	Notifies ESM to ignore user exit changes
04	Notifies ESM to update the changeable work request block fields that were changed by the user exit

Other Programming Considerations

All the following changeable fields are copied from the modified DKNWRB record if the user exit return code is equal to four:

- Priority
- Processing Site
- Subtask

Example

Member DKNSMX05, in the *ESM.V01R01*.SDKNSAM2 PDS, may be used as an example when coding assembler Manual Task Update exit routines.

User Exit #6 for ESM End-Prime

This exit exists for allowing or disallowing ENDPRIME to be activated. The sample provides checks if there are any active prime-pass MICRs in progress. If so, the user exit gives a return code to ESM, indicating that ENDPRIME may not be set to Active.

Environment

This exit is given control when ENDPRIME is activated from the SMOF screen.

Point of Processing

This exit is given control immediately prior to the ENDPRIME flag being set to either Active or Pending.

Activation

A single ENDPRIME exit routine is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see "Customizing the ESM Profile Member" on page 3-3.

Register Contents When Control Is Passed to the Exit Routine

R0	Not applicable	
R1	Input Parameters	
	Word 1 (+00)	Address of APTCB
	Word 2 (+04)	Address of 1-character field containing the cycle.
	Word 3 (+08)	Address of 1 byte to contain the hexadecimal sorter number. This field is null for exit input.
	Word 4 (+0C)	Address of 2 bytes to contain the hexadecimal tracer number. This field is null for exit input.
R2 - R13	Not applicable	
R14	Return address	
R15	Address of ESM User Exit #6—the exit entry point address	

Register Contents When Control Is Passed Back to ESM

R0	Not applicable	
R1	Output parameters	
	Word 1 (+00)	Address of APTCB
	Word 2 (+04)	Address of 1-character field containing the cycle
	Word 3 (+08)	Address of 1 byte to contain the hexadecimal sorter number
	Word 4 (+0C)	Address of 2 bytes to contain the hexadecimal tracer number
R2 - R13	Restored to the same value as on entry	
R14	Not applicable	
R15	Return code as described below:	
	00	Notifies ESM to allow ENDPRIME activation
	04	Notifies ESM to deny ENDPRIME activation

Example

Member DKNSMX06, in the ESM.V01R01.SDKNSAM2 PDS, may be used as an example when coding assembler endprime user exit routines.

User Exit #7 for WRB Creation

This exit allows for the modification of WRB records when a WRB record is first created. The exit may modify the following fields in the WRB record:

WRBUSR1	The WRB user field 1
WRBUSR2	The WRB user field 2
WRBPSITE	WRB processing site I
WRBSUBTA	WRB subtask name
WRBPRTY	WRB priority

Environment

This exist is called when the WRB record is first written.

Activation

A single WRB creation exit is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Note: You must restart CPCS to make the changes effective when a new version of the exit routine is installed.

Register Contents When Control is Passed to the Exit Routine

R0 Not applicable

R1 Address of user exit parameter list

- **Word 1 (+00)** Address of APTCB

  Note: May only be used to send messages.

- **Word 2 (+04)** Address of WRB record

R2 - R12 Not applicable

R13 Caller’s save area address

R14 Return address

R15 Address of ESM User Exit #7 - the entry point

Register Contents When Control Is Passed Back to ESM

R0 - R1 Not applicable

R2 - R13 Restored to same values as on entry

R14 Not applicable

R15 Return codes as described below:

- **00** ESM ignores user exit changes.
- **04** ESM updates the task record with the following fields that the user exit may change:
  - Priority
  - Processing site field
  - Subtask field
  - User field 1
  - User field 2

Other Programming Considerations

All the following fields are copied from the modified WRB record if the user return code is equal to 4:

WRBUSR1	The WRB user field 1
WRBUSR2	The WRB user field 2
WRBPSITE	WRB processing site I
WRBSUBTA	WRB subtask name
WRBPRTY	WRB priority

Example

Member DKNSMX07, in the ESM.V01R01.SDKNSAM2 PDS, may be used as an example when coding assembler WRB Creation exit routines.

User Exit #8 for UOW Creation

This exit allows for the modification of UOW records when a UOW record is first created. The exit may modify the following fields in the UOW record:

UOWUSR1	The UOW user field 1
UOWUSR2	The UOW user field 2
UOWPSITE	UOW processing site
UOWGROUP	UOW group
UOWCLASS	UOW class

Environment

This exit is called when the UOW record is first written.

Activation

A single UOW creation exit is specified for the entire CPCS system. The exit routine is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Note: You must restart CPCS to make the changes effective when a new version of the exit routine is installed.

Register Contents When Control Is Passed to the Exit Routine

R0	Not applicable	
R1	Address of user exit parameter list:	
	Word 1 (+00)	Address of APTCB **Note:** May only be used to send messages.
	Word 2 (+04)	Address of UOW record
R2 - R12	Not applicable	
R13	Caller’s save area address	
R14	Return address	
R15	Address of ESM user exit #8 - the entry point	

Register Contents When Control Is Passed Back to ESM

R0 - R1 Not applicable

R2 - R13 Restored to same values as on entry

R14 Not applicable

R15 Return codes as described below:

00 ESM ignores user exit changes

04 ESM updates the UOW record with the following fields that the user exit may change:

- The UOW user field 1
- The UOW user field 2
- UOW processing site
- UOW group
- UOW class

Other Programming Considerations

All the following fields are copied from the modified UOW record if the user return code is equal to 4:

UOWUSR1	The UOW user field 1
UOWUSR2	The UOW user field 2
UOWPSITE	UOW processing site
UOWGROUP	UOW group
UOWVCLASS	UOW class

Example

Member DKNSMX08, in the ESM.V01R01.SDKNSAM2 PDS, may be used as an example when coding assembler UOW Creation exit routines.

User Exit #9 for Task Completion

This exit is called when ESM is logging the ending of a task just prior to starting other tasks; these tasks are dependent on the successful completion of the ending task. The exit may set flags that cause subsequent tasks to be started, even if the ending task does not complete successfully.

Environment

This exit is called at the point a task is ending.

Activation

The exit is called just prior to the point where ESM determines whether to start subsequent tasks that are dependent on the ending task completing with SCC or UCC equalling 0.

The exit is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Register Contents When Control Is Passed to the Exit Routine

R0 Not applicable

R1 Address of user exit parameter list:

- **Word 1 (+00)** APTCB Address (DKNAPTCB)

  Note: May only be used to send messages.

- **Word 2 (+04)** APPLWRB Address

  WRB WRBFUOWF points to the first UOW

  UOW UOWDNEXT points to the next UOW in the APPLWRB

- **Word 3 (+08)** Address of X09ACTNS

Register Contents When Control Is Passed Back to ESM

Register 15 **must** contain one of the following return codes:

R15 Return codes as described below:

- **00** ESM ignores user exit changes.
- **04** ESM performs the action stored in X09ACTN.

  Return codes as described below:

  Supported actions are:

  - **S** Start ALL dependent tasks, regardless of completion codes.
- **08** ESM disables this user exit.

Example

Member DKNSMX09, in the ESM.V01R01.SDKNSAM2 PDS, may be used as an example when coding Task Completion user exit routines.

User Exit #10 for Dynamic Workflow Alteration

This exit is called when a Dynamic Workflow Alteration (DWA) rule indicates the user exit should determine which task should go in the workflow for the string.

For more information on how DWA rules work, see “Dynamic Workflow Alteration” on page 1-9.

Environment

This exit is called by ESM when a UOW is created for a string and the workflow for the UOW is being determined.

Activation

This exit is called after the point where ESM finds a matching DWA rule for the task in the workflow.

The exit is activated when its name is specified in the ESM profile. For more information, see “Customizing the ESM Profile Member” on page 3-3.

Register Contents When Control Is Passed to the Exit Routine

R0 Not applicable

R1 Address of DKNSMDX1, the user exit parameter list:

Word 1 (+00)—"Eyecatcher" DKNSMDX1

(+08)—UOW address

(+0C)—APTCB address

(+10)—Original task name

(+18)—Original task version

(+1A)—Replacement task name

(+22)—Replacement version

(+24)—Action

Include
Exclude
Replace

Register Contents When Control Is Passed Back To ESM

Register 15 **must** contain one of the following return codes:

R15 Return codes as described below:

00 Normal completion

DKNSMDX1 contains data that tells ESM what to do in the fields marked Action, Replacement Task, and Replacement Version:

Example

Member DKNSMX10, in the ESM.V01R01.SDKNSAM2 PDS, may be used as an example when coding assembler Dynamic Workflow Alteration user exit routines.

Chapter 4. Enhanced System Manager Online Functions

Overview

The Enhanced System Manager online functions are application-level functions that let you monitor and change the queues and databases of Enhanced System Manager. The Enhanced System Manager online functions provide the following types of screens:

Main Menu Screen
The Enhanced System Manager main menu screen lets you select the Enhanced System Manager online functions that you want to perform.

Task Inquiry/Management Screens
The Task Inquiry/Management screens associate the units of work in the system by task profiles. To determine the processing status, you can use the Task Inquiry/Management screens to look at work in the system.

Unit-of-Work Inquiry/Management Screens
The Unit-of-Work Inquiry/Management screens let you look at the units of work relative to the data that is associated with the unit of work, such as the tracer number or the CPCS cycle number.

Workflow Definition Screens
The Workflow Definition screens let you look at or update the workflow and task-profile records.

Supervisor Functions Screens
The Supervisor Functions main menu lets the supervisory staff select restricted functions.

This chapter describes these Enhanced System Manager online function screens. Each screen contains a screen number, a screen title, and the date[1] and time[1] information in the proper format.

[1] The CPCS screens display the date and time in the format specified at system initialization.

DKNSMOF-00–Main Menu Screen

The Main Menu screen (DKNSMOF-00) appears when you enter the SMOF command at the CPCS ready prompt and press **ENTER**.

```
DKNSMOF-00                        System Manager              Date : 12/11/1995
                                  - Main Menu -               Time : 13:24:59
                                                              Id   : CPCSOPR



           Option      1) Task Inquiry/Management
                       2) Unit Of Work Inquiry/Management
                       3) Workflow Definition
                       4) Supervisor Functions









PF1=Help   PF3=End
```

Figure 4-1. DKNSMOF-00 Main Menu Screen

Operator Response: You can do one of the following:

- Select one of the following options from the menu by typing the number that corresponds to the option that you want to select and pressing **ENTER**:

  1 **Task Inquiry/Management**

  When you select option 1, the Task Management Options screen (DKNSMT5-01) appears (see Figure 4-10 on page 4-22), from which you may select any of the displayed options.

  2 **Unit of Work Inquiry/Management**

  When you select option 2, you get the UOW Selection Criteria screen (DKNSMI3-01) (see Figure 4-18 on page 4-35), from which you can generate a list of units of work. From the list, you can select a specific unit of work to observe.

  Note: If you are an authorized operator, you can update the selected unit of work.

  3 **Workflow Definition**

  When you select option 3, you get the Workflow Component Menu screen (DKNSMW0-01) (see Figure 4-24 on page 4-47), from which you can create, update, and delete workflow records and supporting database records. The workflow record defines which tasks are assigned to a unit of work.

  4 **Supervisor Functions**

  When you select option 4, the supervisor functions main menu (DKNSMC0-01) appears from which you can select a specific supervisor

function. Figure 4-44 on page 4-84 shows the supervisor functions main menu.

- Press **PF1** to get help.
- Press **PF3** to return to the CPCS ready prompt.

Task Inquiry/Management Screens

You can use the following Task Inquiry/Management screens to monitor work in the system, determine processing status, and work with task suppression rules:

- DKNSMT0-01–Task Selection Criteria screen
- DKNSMT1-01–Pending Work screen
- DKNSMT2-01–Ready Work screen
- DKNSMT3-01–Complete Work screen
- DKNSMT4-01–Task Profile screen.
- DKNSMT5-01–Task Management Options Menu
- DKNSMT6-01–Task Summary Information Menu
- DKNSMH0-01–Task Suppression Rules List screen
- DKNSMH1-01–Task Suppression Rules Creation screen
- DKNSMH1-01–Task Suppression Rules Summary screen

The following sections describe each of these screens.

Selecting option 1 from the System Manager Main Menu (DKNSMOF-00) screen (see Figure 4-1 on page 4-4) displays the Task Management Options Menu (DKNSMT5-01).

DKNSMT0-01–Task Selection Criteria Screen

When you select option 1 from the Task Management Option Menu screen (DKNSMT5-01) (see Figure 4-10 on page 4-22), the Task Selection Criteria screen appears. The Task Selection Criteria screen (DKNSMT0-01) lets you select your view of the work in the CPCS system.

```
DKNSMT0-01                        System Manager              Date : 12/11/1995
                            - Task Selection Criteria -       Time : 13:55:40
                                                              Id   : CPCSOPER


             Work Status  : EQ : R          (P=Pending R=Ready C=Complete)
             Entry        : EQ :
             Tracer       : EQ :
             Cycle        : EQ :
             Endpoint     : EQ :
             Sort Pattern : EQ :
             Task         : EQ :
             Owner Site   : EQ :
             Process Site : EQ :
             Priority     : EQ :
             System Code  : GE :
             User Code    : GE :

             Press <Enter> to select "ALL" Ready tasks


PF1=Help  PF2=Menu  PF3=End
```

Figure 4-2. DKNSMT0-01 Task Selection Criteria Screen

This screen shows the following fields:

Work Status The status of the work that you want to list. This field is required. The values are:

- **C** Complete
- **P** Pending
- **R** Ready (default value).

Entry The entry number of the task(s) to be selected.

Tracer The tracer-group number for the task(s) to be selected.

Cycle The cycle number of the task(s) to be selected.

Endpoint The endpoint number of the task(s) to be selected.

Sort Pattern The sort-pattern number of the task(s) to be selected.

Task The task name of the task(s) to be selected.

Owner Site The site that “owns” the selected unit of work.

Process Site The site that is “processing” the selected unit of work.

Priority The priority of the task(s) to be selected.

System Code The system condition code of the task(s) to be selected.

User Code The user condition code of the task(s) to be selected.

Note: You can specify ranges of values for the Priority, System Code, and User Code parameters. You can use the following qualifiers to the left of the fields:

EQ Equal to the specified value
GT Greater than the specified value
GE Greater than or equal to the specified value
LT Less than the specified value
LE Less than or equal to the specified value

Operator Response: You can do one of the following:

- Press **ENTER** to get a list of all ready tasks.
- Type data in as many selection fields as you want and press **ENTER** for the corresponding task list.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMT1-01–Pending Work Screen

The Pending Work screen (DKNSMT1-01) provides a line of information about each application task scheduled for dispatch. The information displayed is contained in the work-request-block (DKNWRB). There is 1 WRB for each application task.

The tasks listed in Figure 4-3 and Figure 4-4 do not have all dispatch criteria met. That is, all functional and control UOWs are not in the “Ready” state. Dispatch criteria are defined in the task profile for each version of the application task. See “Task Profile Customization” on page 3-12 for information on customizing dispatch criteria.

```
DKNSMT1-01                 System Manager              Date  :  01/21/1998
Page :  001               - Pending Work -             Time  :  13:56:24
                                                       Id    :  CPCSOPER

Opt    Task    V#  Type    Profile Desc.    Pri  Cy  Pat  T  String ..

      DKNICRE  01  M- -NM  Input Creation    5   01  101  P         ..
      DKNMCRE  02  M- -NM  Master Creation   5   01  101  p  0010-1-..
      DKNLDIR  01  M- -NM  List Directory    5   01  101  P  0010-1-..
      DKNRMIT  01  A- -NM  Rmit for D-Stg    5   01  101  P         ..









Option:  B = Browse          C = Cancel          F = Force Ready
         H = Hold            L = Log             R = Release


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-3. DKNSMT1-01 Pending Work Screen (left side)

```
DKNSMT1-01                  System Manager              Date : 01/21/1998
Page  : 001                - Pending Work -             Time : 13:56:24
                                                        Id   : CPCSOPER

Opt    Task    Count        Amount



Option:  B = Browse          C = Cancel          F = Force Ready
         H = Hold            L = Log             R = Release

PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-4. DKNSMT1-01 Pending Work Screen (right side)

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the Page field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

Task The application task name of the scheduled work.

Type The type of work scheduled, in the format X-Y-ZZ, where:

X The values are:

- **A** Automatic
- **M** Manual.

Y The values are:

- **blank** A special condition does not exist for this task.
- **F** Force started.
- **H** Task is held.

ZZ The values are:

- **NM** Task is scheduled for, or was started with, a `NORMAL` start.
- **RR** Task has been `RE-RUN` since the task was started; the previous system and user completion codes were zero.
- **RS** Task has been `RE-STARTED` since the task was started; the previous system and user completion codes were non-zero, indicating the previous task failed in some way.

SP Task has been SPLIT into two tasks. This is caused by:

1. Forcing a task (FORCE) to start, which splits one task into two tasks, with one task containing the ready work and the other task containing the pending work
2. A task simply not processing all UOWs that were scheduled to be processed, which splits one task into two tasks, with one task containing the processed UOWs and one task containing the unprocessed UOWs

Profile Desc The profile description of this work.

Pri The priority that is associated with this work. The valid range is 0 through 9 (0=lowest, 9=highest). To change the order in which the tasks listed on this screen run, change the value of this field.

Cy The cycle number of this work.

Pat The sort-pattern number of this work.

T Indicates the string type.

P = Prime string

H = HSRR string

String Name The first string name associated with this task.

Count The number of items in the string.

Amount The monetary amount in the string.

Operator Response: In the **Opt** column next to the task that you want to look at or change, type one of the following option codes:

B **Browse (Task Profile)**

This option displays the Task Profile screen (DKNSMT4-01), which shows the units of work, tasks, data sets, and time criteria that must be satisfied before this task can be dispatched.

C **Cancel**

This option changes the specified task to the complete state without running the task.

F **Force Ready**

This option changes the specified task to the ready state, regardless of the current dispatch criteria.

H **Hold**

This option places the task in a hold state, regardless of the current task profile.

L **Log Task**

This option writes the DKNWRB record to the ESMLOG.

R **Release**

This option removes a task from a hold status.

You can then do one of the following:

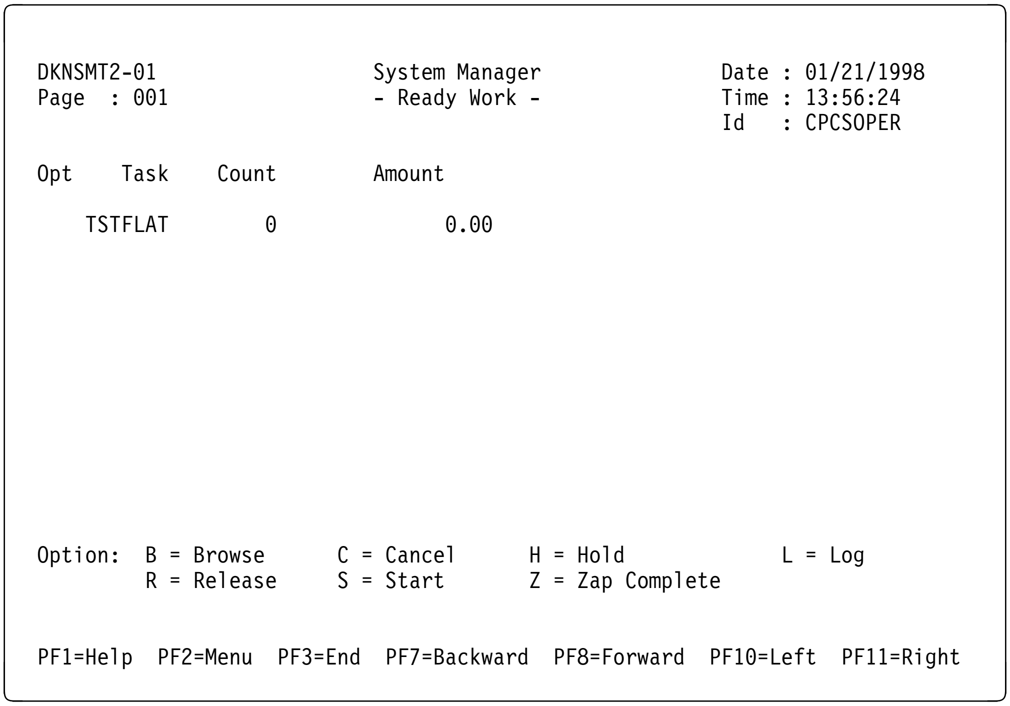
- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll left through the list.
- Press **PF11** to scroll right through the list.

DKNSMT2-01–Ready Work Screen

The Ready Work screen (DKNSMT2-01) provides a line of information for each task for which the dispatch criteria have been met. Dispatch criteria are defined in the task profile for each version of an application task. See “Task Profile Customization” on page 3-12 for more information on customizing dispatch criteria.

```
DKNSMT2-01                  System Manager              Date  :  01/21/1998
Page :  001                 - Ready Work -              Time  :  13:56:24
                                                        Id    :  CPCSOPER

Opt   Task   V#   Type    Profile Desc.   Pri Cy  Pat  T  String  ..

    DKNICRE  01  M- -NM  Input Creation    5  01  101  P          ..
    DKNMCRE  02  M- -NM  Master Creatio    5  01  101  P  0010-1-0..
    DKNLDIR  01  M- -NM  Last Directory    5  01  101  P  0010-1-0..
    DKNRMIT  01  A- -NM  Rmit for D-stg    5  01  101  P          ..

Option:  B = Browse      C = Cancel      H = Hold             L = Log
         R = Release     S = Start       Z = Zap Complete

PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-5. DKNSMT2-01 Ready Work Screen (left side)



```
DKNSMT2-01                  System Manager              Date : 01/21/1998
Page  : 001                 - Ready Work -              Time : 13:56:24
                                                        Id   : CPCSOPER

Opt    Task    Count        Amount

    TSTFLAT        0             0.00











Option:  B = Browse      C = Cancel      H = Hold            L = Log
         R = Release     S = Start       Z = Zap Complete


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-6. DKNSMT2-01 Ready Work Screen (right side)

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

Task The task name of the queued work.

Pos The task position of the queued work in the ready queue.

Type The run type of the queued task, in the format X-Y-ZZ, where:

- **X** The values are:
  - **A** Automatic
  - **M** Manual
- **Y** The values are:
  - **blank** A special condition does not exist for this task.
  - **F** Force started.
  - **H** Task is held.
- **ZZ** The values are:
  - **NM** Task is scheduled for, or was started with, a `NORMAL` start.
  - **RR** Task has been `RE-RUN` since the task was started; the previous system and user completion codes were zero.

RS Task has been RE-STARTED since the task was started; the previous system and user completion codes were non-zero, indicating the previous task failed in some way.

SP Task has been SPLIT into two tasks. This is caused by:

1. Forcing a task (FORCE) to start, which splits one task into two tasks, with one task containing the ready work and the other task containing the pending work
2. A task simply not processing all UOWs that were scheduled to be processed, which splits one task into two tasks, with one task containing the processed UOWs and one task containing the unprocessed UOWs

Profile Desc The profile description of this work.

Pri The priority that is associated with this work. The valid range is 0 through 9 (0=lowest, 9=highest). To change the order in which the tasks listed on this screen run, change the value of this field.

Cy The cycle number of this work.

Pat The sort-pattern number of this work.

T Indicates the string type. Valid string types are:

P = Prime string

H = HSRR string

String Name The first string name associated with this task.

Count The number of items in the string.

Amount The monetary amount in the string.

Operator Response: In the **Opt** column next to the task that you want to look at or change, type one of the following option codes:

B **Browse (Task Profile)**

This option displays the Task Profile screen (DKNSMT4-01). This screen shows the units of work, tasks, data sets, and time criteria that must be satisfied before this task can be dispatched.

C **Cancel**

This option changes the specified task to the complete state without running the task.

H **Hold**

This option places the task in a hold state, regardless of the current task profile.

L **Log Task**

This option writes the DKNWRB record to the ESMLOG.

R **Release**

This option removes a task from a hold status.

S **Start**

This option causes ESM to start the task if it is startable.

Z **Zap Complete**

This option changes a task to a complete state.

> **Warning**
>
> Use of this option may result in CPCS storage fragmentation, as all internal control block storage allocations and MVS dataspace storage allocations are *not* freed as a result of this option.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll left through the list.
- Press **PF11** to scroll right through the list.

DKNSMT3-01–Complete Work Screen

The Complete Work screen (DKNSMT3-01) provides a line of information for each application task that completed execution. Application tasks listed here have:

1. Ended normally, or
2. Ended abnormally, or
3. Been canceled by the Enhanced System Manager operator (on screen DKNSMT2-01), or
4. Been canceled by Enhanced System Manager. This happens when all dispatching criteria is met but no functional UOWs exist to be processed by the application (S422-U422).

```
DKNSMT3-01                    System Manager              Date  :  01/21/1998
Page :  001                  - Complete Work -            Time  :  13:47:17
                                                          Id    :  CPCSOPER

Opt  Task    V# Type   String Name    Cy Start     End     SCC  UCC ..
    DKNTGSC  01 A- -NM                  10:54:32 10:54:42 S000 U000..
    DKNDIST  01 A- -NM 0010-1-00-00-0 01 10:55:04 11:55:43 S000 U000..
    DKNRMIT  01 A- -NM 0010-1-03-00-0 01 10:55:08 10:55:45 S000 U000..









Option:  B = Browse          L = Log               R = Restart


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-7. DKNSMT3-01 Complete Work Screen (left side)

```
DKNSMT3-01                  System Manager              Date : 01/21/1998
Page  : 001                - Complete Work -            Time : 13:56:24
                                                        Id   : CPCSOPER

Opt    Task    Count        Amount



Option:  B = Browse          L = Log             R = Restart

PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward  PF10=Left  PF11=Right
```

Figure 4-8. DKNSMT3-01 Complete Work Screen (right side)

This screen shows the following fields:

Page
The page number. This is a variable field. To go to another page of this screen, move the cursor to the Page field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt
The input field for the option that you select.

Task
The task name of the completed work.

Type
The run type of the task when it last ran, in the format X-Y-ZZ, where:

X The values are:

- **A** Automatic
- **M** Manual.

Y The values are:

- **blank** A special condition does not exist for this task.
- **F** Force started.
- **H** Task is held.

ZZ The values are:

- **NM** Task is scheduled for, or was started with, a `NORMAL` start.
- **RR** Task has been `RE-RUN` since the task was started; the previous system and user completion codes were zero.

RS Task has been `RE-STARTED` since the task was started; the previous system and user completion codes were non-zero, indicating the previous task failed in some way.

SP Task has been `SPLIT` into two tasks. This is caused by:

1. Forcing a task (`FORCE`) to start, which splits one task into two tasks, with one task containing the ready work and the other task containing the pending work
2. A task simply not processing all UOWs that were scheduled to be processed, which splits one task into two tasks, with one task containing the processed UOWs and one task containing the unprocessed UOWs

String Name The first string name associated with this task.

Cy The cycle number of this work.

Start The start time.

End The end time.

SCC The system return code that is associated with this task.

UCC The user return code that is associated with this task.

Count The number of items in the string.

Amount The monetary amount in the string.

Operator Response: Type one of these codes in the **Opt** column next to the task:

B **Browse (Task Profile)**

This option displays the Task Profile screen (DKNSMT4-01). This screen shows the units of work, tasks, data sets, and time criteria that must be satisfied before this task can be dispatched.

L **Log Task**

This option writes the DKNWRB record to the ESMLOG.

R **Restart**

This option reruns or restarts a task (depending on the system or user return code). This option reruns a task when a return code is zero. This option restarts a task when a return code is not zero.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll left through the list.
- Press **PF11** to scroll right through the list.

DKNSMT4-01–Task Profile Screen

The Task Profile defines the dispatch criteria for a given application task. The application Task Profile screen (DKNSMT4-01) provides a line of information for each dispatch element that must be satisfied before the selected application task can be dispatched. It shows the units of work, tasks, and time criteria that must be satisfied before this task can be dispatched.

```
DKNSMT4-01                        System Manager              Date : 12/11/1995
Page :  001                     - Task Profile -              Time : 13:56:10
                                                              Id   : CPCSOPER

Task     Type    Profile Desc.  Ver Cyc Patt Entry Tracer Pass BANK  ENDPOINT
DKNRMIT  A- -NM  Rmit for D-Stg 01  01  101  0010  0010    1
Subtask  Owner Site  Proc Site  User Field1  User Field2        D/S
                                     FIRST                    YES/NO

User Options:

   St Ty         String Name          Task     Time  Subt   Lvl  Cat  Prime HSRR
   D  F   0010-1-03-00-...........   DKNDIST   10:55              9   0010  0100
   D  F   0010-1-04-00-...........   DKNDIST   10:55              9   0010  0100









PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-9. DKNSMT4-01 Task-Profile Screen

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Task The task name of the selected work.

Type The type description of the selected work, in the format X-Y-ZZ, where:

X The values are:

- **A** Automatic
- **M** Manual.

Y The values are:

- **blank** A special condition does not exist for this task.
- **F** Force started.
- **H** Task is held.

ZZ The values are:

NM Task is scheduled for, or was started with, a `NORMAL` start.

RR Task has been `RE-RUN` since the task was started; the previous system and user completion codes were zero.

RS Task has been `RE-STARTED` since the task was started; the previous system and user completion codes were non-zero, indicating the previous task failed in some way.

SP Task has been `SPLIT` into two tasks. This is caused by:

1. Forcing a task (`FORCE`) to start, which splits one task into two tasks, with one task containing the ready work and the other task containing the pending work
2. A task simply not processing all UOWs that were scheduled to be processed, which splits one task into two tasks, with one task containing the processed UOWs and one task containing the unprocessed UOWs

Profile Desc. The dispatching description of this work.

Ver The task-profile version of this work.

Cyc The cycle number of the selected work.

Patt The sort-pattern number of this work.

Entry The entry number of this work.

Trace The tracer-group number of the selected work.

Pass The pass that this task is scheduled to run.

Bank The bank number for the selected work.

Endpoint The endpoint number of the selected work.

Subtask The subtask for the selected work. This field is set through an application programming interface *only* by a user program.

Owner Site The site that “owns” the selected unit of work.

Process Site The site that is “processing” the selected unit of work.

User Field1: The first user level grouping field of this work.

User Field2: The second user level grouping field of this work.

D/S Indicates if a dataspace has ever been created for this WRB. The default is NO. Once a dataspace is created, this field is never reset.

User Options The user-specified start parameters.

St The status of the dispatch criteria. The values are:

P Pending (control units of work only)
R Ready (the string exists on the Mass Data Set)

D Deleted (the string has been deleted on the Mass Data Set)

Ty The type of criteria related to the unit of work. The values are:

F Functional
C Control.

String Name The name of the string.

Task The task name for the selected work.

Time The time that the task was created.

Subt The subtype selected for a control unit of work. The subtype value that the Task Profile Detail screen defines is dependent on task profile detail for the control unit of work. The values are:

Ever Every
Extr External UOW
Frst First
Init Interval
Last Last
Pass Pass
Paus Pause
Prev Previous
Spcl Special
Time Time.

Lvl The level of the selected work (cycle or entry).

Cat The category of the selected work.

Prime The Prime tracer for the UOW.

HSRR The HSRR tracer for this UOW if one exists.

Operator Response: You can then do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMT5-01–Task Management Options Menu

The Task Management Options Menu screen (DKNSMT5-01) is a second-level menu for the Task Inquiry/Management functions. You request this menu from the Main Menu screen (DKNSMOF-00). This menu passes control to the various task management screens, according to the function that you select. If you can access Enhanced System Manager (ESM), you can perform the inquiry functions. If you are an authorized operator, you can perform the update functions.

```
DKNSMT5-01                        System Manager              Date : 03/03/1998
                       - Task Management Options Menu -       Time : 10:31:13
                                                              Id   : GCR



           Option:     1) Task Database Queries
                       2) Task Database Summary
                       3) Task Suppression Facility









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-10. DKNSMT5-01 Task Management Options Menu

You may select one of the following options from the menu:

1. Task Database Queries — Select option 1 to display a Selection Menu from which you can generate a list of tasks. From this list, you may select a specific task to view or modify.
2. Task Database Summary — Select option 2 to display the Task Summary Information Menu. This menu displays status summary totals for all tasks currently tracked via ESM.
3. Task Suppression Facility — Select option 3 to display the Task Suppression Rules List. This menu displays all task suppression rules that are currently active in ESM.

Operator Response: You can also do the following

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous menu.

DKNSMT6-01–Task Summary Information Menu

When you select option 2 from the Task Management Options Menu screen (DKNSMT5-01) (see Figure 4-10 on page 4-22), the Task Summary Information Menu screen (DKNSMT6-01) appears. It displays summary information for all tasks currently tracked via ESM.

The summary information displayed is the total number of individual tasks that exist for each of the processing states displayed, as well as the total number of individual tasks for the task name displayed.

This menu is used for a high-level view of all tasks in the system at the current time.

```
DKNSMT6-01                        System Manager              Date : 03/03/1998
Page :  001             - Task Summary Information Menu -     Time : 10:31:26
                                                              Id   : GCR

Opt   Task   Pending  Ready  Active    Held  SCC Err UCC Err Complete  Total
--- -------- ------- ------- ------- ------- ------- ------- ------- -------
    DKNDIST        0       0       0       0       0       0       1       1
    DKNKILL        1       0       0       0       0       0       1       2
    DKNMICR        0       1       0       0       0       0       0       1
    DKNOLRR        0       1       0       0       0       0       0       1
    DKNSTGD        1       0       0       0       0       0       0       1









Option:  A = Active        C = Complete      H = Held         P = Pending
         R = Ready/Held    S = SCC Error     U = UCC Error


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-11. DKNSMT6-01 Task Summary Information Menu screen

This screen has the following fields:

Page The page number. This is a variable field. To go to another page of this menu, move the cursor to the page field and type the number of the page that you want to display. The number 999 causes the last page of this menu to appear.

Opt The input field for the function that the operator selected.

Task The task name for the summarized information.

Pending The total number of pending tasks for the task name.

Ready The total number of ready tasks for the task name.

Active The total number of active tasks for the task name.

Held The total number of held tasks for the task name.

SCC Error The total number of tasks for the task name that have completed with a non-zero system completion code.

UCC Error The total number of tasks for the task name that have completed with a non-zero user completion code.

Complete The total number of tasks for the task name that have completed normally.

Total The total number of tasks for the task name.

Operator Response: In the **Opt** column next to the task, type one of the following option codes:

A **Active**

This option displays a list of all active tasks for the selected task name.

C **Complete**

This option displays a list of all complete tasks for the selected task name.

H **Held**

This option displays a list of all held tasks for the selected task name.

P **Pending**

This option displays a list of all pending tasks for the selected task name.

R **Ready**

This option displays a list of all ready tasks for the selected task name.

S **SCC Error**

This option displays a list of all tasks for the selected task name that have completed with a non-zero system return code.

U **UCC Error**

This option displays a list of all tasks for the selected task name that have completed with a non-zero user return code.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMH0-01–Task Suppression Rules List Screen

The Task Suppression Rules List screen (DKNSMH0-01) lets you view the list of suppression rules that are defined to ESM. Note that there are four screens in all from -01 through -04.

DKNSMH0-01–Task Suppression Rules List Screen

Following is the first of the Task Suppression Rules List screens:

```
DKNSMH0-01                        System Manager              Date : 01/15/2002
Page :  001              - Task Suppression Rules List -      Time : 14:16:52
                                                              Id   : CPCSOPR

Opt Task      Version  Cycle  Entry  Tracer  P  Pkt History  Type

    DKNICRE      01
    DKNICRE      01       A                                   M
    DKNICRE      01       A                                   R
    DKNICRE      77                          2  03-44-**-**
    DKNICRE      88       I   2111    1222   3  05-**-**-R    M
    DKNLIST      03
    DKNLIST      04       A   6789    0123   3  45-**-**-**   D
    DKNMCRE      99                             12-**-**-**   M
    DKNPLST
    DKNPLST                           0010      01-02-03-04   E
    DKNPSCR
    DKNSLST      02           0333    3330   3  03-**-05-**


Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-12. DKNSMH0-01 Task Suppression Rules List Screen

This screen shows the following fields:

Task The task name of the task(s) to be suppressed

Version The task profile version number of the task(s) to be suppressed

Cycle The cycle number of the task(s) to be suppressed

Entry The entry number of the task(s) to be suppressed

Tracer The tracer-group number for the task(s) to be suppressed

P The pass number of the task(s) to be suppressed

Pkt History The pocket history of a string for which a task is to be suppressed

Type The string type for which a task is to be suppressed

Operator Response: In the **Opt** column next to the entry with which you want to work, type one of the following option codes:

B **Browse**

This option lets you browse the task profile entry.

D **Delete**

This option lets you delete this task profile entry.

You can also do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to go to the CREATE Task Suppression Rule screen (DKNSMH2-01).
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll to the right.
- Press **PF11** to scroll to the left.

DKNSMH0-02–Task Suppression Rules List Screen

The Task Suppression Rules List screen (DKNSMH0-02) lets you view the list of suppression rules that are defined to ESM.

```
DKNSMH0-02                        System Manager              Date : 01/15/2002
Page :  001              - Task Suppression Rules List -      Time : 13:49:50
                                                              Id   : CPCSOPR

Opt Task      Version  Sorter  Sort Pattern  Bank

    DKNICRE      01
    DKNICRE      01
    DKNICRE      01
    DKNICRE      77
    DKNICRE      88      22        233       088
    DKNLIST      03      03        222       222
    DKNLIST      04      45        234       123
    DKNMCRE      99
    DKNPLST
    DKNPLST
    DKNPSCR
    DKNSLST      02



Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-13. DKNSMH0-02 Task Suppression Rules List Screen

This screen shows the following fields:

Task The task name of the task(s) to be suppressed

Version The task profile version number of the task(s) to be suppressed

Sorter The sorter number of the task(s) to be suppressed

Sort Pattern The sort-pattern number of the task(s) to be suppressed

Bank The bank number of the task(s) to be suppressed.

Operator Response: In the **Opt** column next to the entry with which you want to work, type one of the following option codes:

B **Browse**

This option lets you browse the task profile entry.

D **Delete**

This option lets you delete this task profile entry.

You can also do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to go to the CREATE Task Suppression Rule screen (DKNSMH2-01).
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll to the right.
- Press **PF11** to scroll to the left.

DKNSMH0-03–Task Suppression Rules List Screen

The Task Suppression Rules List screen (DKNSMH0-03) lets you view the list of suppression rules that are defined to ESM.

```
DKNSMH0-03                        System Manager              Date : 01/15/2002
Page :  001              - Task Suppression Rules List -      Time : 13:49:52
                                                              Id   : CPCSOPR

Opt Task      Endpoint  Owner Site  Process Site  UserFld1  UserFld2  Sub-Task

    DKNICRE                                       123ERTY
    DKNICRE                                       123ERTY
    DKNICRE                                       123ERTY
    DKNICRE
    DKNICRE                                       TRY
    DKNLIST
    DKNLIST   12345678   98765432     23456789                          87654321
    DKNMCRE
    DKNPLST
    DKNPLST
    DKNPSCR
    DKNSLST



Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-14. DKNSMH0-03 Task Suppression Rules List Screen

This screen shows the following fields:

Task	The task name of the task(s) to be suppressed.
Endpoint	The endpoint number of the task(s) to be suppressed.
Owner Site	The owner site of the task(s) to be suppressed.
Process Site	The processing site of the task(s) to be suppressed.
UserFld1	The User Field 1 value for the task(s) to be suppressed.
UserFld2	The User Field 2 value for the task(s) to be suppressed.
Subtask	The subtask field of the task(s) to be suppressed.

Operator Response: In the **Opt** column next to the entry with which you want to work, type one of the following option codes:

B **Browse**

This option lets you browse the task profile entry.

D **Delete**

This option lets you delete this task profile entry.

You can also do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to go to the CREATE Task Suppression Rule screen (DKNSMH2-01).
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll to the right.
- Press **PF11** to scroll to the left.

DKNSMH0-04–Task Suppression Rules List Screen

The Task Suppression Rules List screen (DKNSMH0-04) lets you view the list of suppression rules that are defined to ESM.

```
DKNSMH0-04                        System Manager                Date : 01/15/2002
Page :  001              - Task Suppression Rules List -        Time : 13:49:54
                                                                Id   : CPCSOPR

Opt Task      Start Time  Stop Time   Operator  Creation Date  Creation Time

    DKNICRE                           CPCSOPR      04/12/2001     13:00:37
    DKNICRE                           CPCSOPR      04/12/2001     13:01:10
    DKNICRE                           CPCSOPR      04/12/2001     13:01:18
    DKNICRE                           CPCSOPR      04/12/2001     13:47:01
    DKNICRE                           CPCSOPR      04/12/2001     14:07:27
    DKNLIST                           CPCSOPR      04/11/2001     10:25:13
    DKNLIST                           CPCSOPR      04/11/2001     14:42:27
    DKNMCRE                           CPCSOPR      04/11/2001     15:08:18
    DKNPLST                           CPCSOPR      11/07/2001     09:47:40
    DKNPLST                           CPCSOPR      04/11/2001     15:16:42
    DKNPSCR                           CPCSOPR      02/27/2001     16:06:34
    DKNSLST                           CPCSOPR      04/11/2001     16:18:12


Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-15. DKNSMH0-04 Task Suppression Rules List Screen (Fourth Screen)

This screen shows the following fields:

Task The task name of the task(s) to be suppressed

Start Time The start time for the suppression rule to take effect.

Stop Time The stop time for the suppression rule to be deactivated.

Operator The ID of the operator who created the task suppression rule.

Creation Date The date the suppression rule was created.

Creation Time The time the suppression rule was created.

Operator Response: In the **Opt** column next to the entry with which you want to work, type one of the following option codes:

B **Browse**

This option lets you browse the task profile entry.

D **Delete**

This option lets you delete this task profile entry.

You can also do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

- Press **PF4** to go to the CREATE Task Suppression Rule screen (DKNSMH2-01).
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF10** to scroll to the right.
- Press **PF11** to scroll to the left.

DKNSMH1-01–Task Suppression Rule Creation Screen

The Task Suppression Rule Creation screen (DKNSMH1-01) lets you enter the list of filter criteria for ESM to use when determining if a task should be suppressed.

```
DKNSMH1-01                        System Manager                Date : 05/05/1997
                       - Task Suppression Rule Creation -       Time : 09:33:22
                                                                Id   : CPCSOPR


              Task Name    : DKNDIST     Start (HHMM) :
              Task Version :             Stop  (HHMM) :
              Cycle        :
              Bank         :
              Sort Pattern :
              Sorter       :
              Entry        :
              Tracer       :
              Pockets      :
              String Type  :
              Endpoint     :
              Owner Site   :             User Field 1 :
              Process Site :             User Field 2 :
              Sub-Task     :


PF1=Help  PF2=Menu  PF3=End  PF5=Reset
```

Figure 4-16. DKNSMH1-01 Task Suppression Rule Creation Screen

This screen shows the following fields:

Task Name The task name of the task(s) to be suppressed

Task Version The task profile version number of the task(s) to be suppressed

Cycle The cycle number of the task(s) to be suppressed

Bank The bank number of the task(s) to be suppressed

Sort Pattern The sort-pattern number of the task(s) to be suppressed

Sorter The sorter number of the task(s) to be suppressed

Entry The entry number of the task(s) to be suppressed

Tracer The tracer-group number for the task(s) to be suppressed

Pockets The pocket history for strings to which the suppression rule will apply

Note: If you have UOW Grouping on and pockets are specified in the Task Suppression rule, the rule may have unexpected results for tasks that allow multiple UOWs to be grouped together.

String Type The string type for strings to which the suppression rule will apply

Note: If you have UOW Grouping on an a string type is

	specified in the Task Suppression rule, the rule may have unexpected results for tasks that allow multiple UOWs to be grouped.
Endpoint	The endpoint number of the task(s) to be suppressed
Owner Site	The owner site of the task(s) to be suppressed
Process Site	The processing site of the task(s) to be suppressed
Sub-Task	The subtask field of the task(s) to be suppressed
Start (HHMM)	The start time for the suppression rule to take effect
Stop (HHMM)	The stop time for the suppression rule to be deactivated
User Field 1	The User Field #1 value for the task(s) to be suppressed
User Field 2	The User Field #2 value for the task(s) to be suppressed

Operator Response: You can do one of the following:

- Press **ENTER** to create the task suppression rule.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF5** to clear the menu.

DKNSMH2-01–Task Suppression Rule Summary Screen

The Task Suppression Rule Summary screen (DKNSMH1-01) lets you verify the information for a rule that is being created or, when in browse mode, displays the detail information for an existing rule.

Note: Only the fields that have values in them are displayed.

```
DKNSMH2-01                        System Manager              Date : 05/05/1997
                       - Task Suppression Rule Summary -      Time : 09:34:15
                                    CREATE                    Id   : CPCSOPR


              Task Name    : DKNDIST
              Sorter       : 06
              Owner Site   : CHARLOTT









DKNSMH2 00001  Press ENTER to CREATE Suppression Rule...any PF key to cancel.
PF1=Help  PF2=Menu  PF3=End
```

```
DKNSMH2-01                        System Manager              Date : 05/05/1997
                       - Task Suppression Rule Summary -      Time : 09:35:04
                                    BROWSE                    Id   : CPCSOPR

   Operator: GCR       Creation Date: 05/05/1997   Creation Time: 09:32:56

              Task Name    :             Start (HHMM) :
              Task Version :             Stop  (HHMM) :
              Cycle        :             User Field 1 :
              Bank         :             User Field 2 :
              Sort Pattern :
              Pass         :
              Sorter       :
              Entry        :
              Tracer       :
              Pockets      :
              String Type  :
              Endpoint     :
              Owner Site   :
              Process Site :
              Sub-Task     :


PF1=Help  PF2=Menu  PF3=End
```

Figure 4-17. DKNSMH2-01 Task Suppression Rule Summary Screen

This screen shows the following fields:

Task	The task name of the task(s) to be suppressed.
Task Version	The task profile version number of the task(s) to be suppressed.
Cycle	The cycle number of the task(s) to be suppressed.
Entry	The entry number of the task(s) to be suppressed.
Tracer	The tracer-group number for the task(s) to be suppressed.
Sorter	The sorter number of the task(s) to be suppressed.
Sort Pattern	The sort-pattern number of the task(s) to be suppressed.
Bank	The bank number of the task(s) to be suppressed.
Pass	The pass number of the task(s) to be suppressed.
Pockets	The pocket history for strings to which the suppression rule applies
String Type	The string type for strings to which the suppression rule applies
Endpoint	The endpoint number of the task(s) to be suppressed.
Owner Site	The owner site of the task(s) to be suppressed.
Processing Site	The processing site of the task(s) to be suppressed.
User Field 1	The User Field 1 value for the task(s) to be suppressed.
User Field 2	The User Field 2 value for the task(s) to be suppressed.
Subtask	The subtask field of the task(s) to be suppressed.
Start	The start time for the suppression rule to take effect.
Stop	The stop time for the suppression rule to be deactivated.

Operator Response: You can do one of the following:

- Press **ENTER** to create the task suppression rule (create mode only!)
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

Unit-of-Work Inquiry/Management Screens

You can use the following Unit-of-Work Inquiry/Management screens to monitor units of work relative to data that is associated with the units of work:

- DKNSMI3-01–UOW Selection Criteria screen
- DKNSMI8-01–Unit-of-work List Selection Criteria Display screen
- DKNSMI4-01–Unit-of-work List Relationship Display screen
- DKNSMI5-01–Edit screen
- DKNSMI6-01–Browse screen
- DKNSMI7-01–Path/Task List screen.

The following sections describe each of these screens.

DKNSMI3-01–UOW Selection Criteria Screen

The UOW Selection Criteria screen (DKNSMI3-01) lets you browse the unit-of-work database by selecting one or more qualifying field values.

```
DKNSMI3-01                        System Manager              Date : 12/11/1995
                            - UOW Selection Criteria -        Time : 13:58:23
                                                              Id   : CPCSOPER


                   Status       :           (R=Ready D=Deleted)
                   String       :
                   Entry        :
                   Tracer       :
                   Bank         :
                   Cycle        :
                   Endpoint     :
                   Group        :
                   Class        :
                   Owner Site   :
                   Process Site :



                    Enter any ONE or ALL Search Criteria



PF1=Help  PF2=Menu  PF3=End
```

Figure 4-18. DKNSMI3-01 UOW Selection Criteria Screen

This screen lets you specify the following criteria for listing units of work:

Status The status of the selected unit of work. The values are:
- **R** Ready
- **D** Deleted.

String The string name of the selected unit of work.
Entry The entry number of the selected unit of work.
Tracer The tracer-group number of the selected unit of work.
Bank The bank number of the selected unit of work.
Cycle The cycle number of the selected unit of work.
Endpoint The endpoint number of the selected unit of work.
Group The user-assigned group number of the selected unit of work.
Class The user-assigned class number of the selected unit of work.
Owner Site The site that ‘owns’ the selected unit of work.
Processing Site The site that is ‘processing’ the selected unit of work.

Operator Response: You can do one of the following:

- Type data in as many selection fields as you want and press **ENTER** for the unit-of-work list.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMI8-01–Unit-of-Work List Selection Criteria Display Screen

The unit-of-work list selection criteria display screen (DKNSMI8-01) provides a line of information for each unit of work that relates to the task and status category that you selected on the previous screen.

```
DKNSMI8-01                        System Manager              Date : 12/11/1995
Page :  001                  - Unit of Work List -            Time : 13:59:25
                           Selection Criteria Display         Id   : CPCSOPER

Option   String Name              Tg# St                       Amount     Count

         9999-1-01-00-00-00-D-001 9999 R                   1,364,832.65   2,124
 list    0023-1-00-00-00-00-I-000 0023 R                   1,129,941.66   2,251
         0023-1-R -00-00-00-D-000 0023 R                           0.00     407
         0023-1-01-00-00-00-D-000 0023 R                      88,574.23     419
         0023-1-02-00-00-00-D-000 0023 R                      48,296.46      26
         0023-1-05-00-00-00-D-000 0023 R                     106,087.13     232
         0023-1-07-00-00-00-D-000 0023 R                      56,658.20     137
         0023-1-09-00-00-00-D-000 0023 R                     217,223.15     450
         0023-1-11-00-00-00-D-000 0023 R                     188,370.43     254
         0023-1-13-00-00-00-D-000 0023 R                       1,512.73       9
         0023-1-14-00-00-00-D-000 0023 R                      23,755.44      46
         0023-1-15-00-00-00-D-000 0023 R                     189,035.67     298

Option:  R = Relationship    P = Path/Task List       B = Browse UOW
         E = Edit UOW        xxxx = CPCS Application Task


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-19. DKNSMI8-01 Unit-of-Work List Selection Criteria Display Screen

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

String Name The string name for the unit of work.

Tg# The tracer-group number for the unit of work.

St The status of the unit of work. The values are:

- **R** Ready. A CPCS task created the unit of work, which can now start moving through its workflow assignments.
- **D** Deleted. The CPCS Mass data set string that corresponds to the unit of work is deleted from the CPCS Mass data set.

Amount The currency volume that is associated with this unit of work.

Count The number of items that are associated with this unit of work.

Operator Response: You can select any unit of work in the list and request more information. In the **Opt** column next to the information for the unit of work that you want to look at or change, type one of the following option codes:

R **Relationship**

This option displays the unit-of-work list relationship display screen (DKNSMI4-01) (see Figure 4-20 on page 4-38). This screen shows the units of work that have a relationship to the selected unit of work.

P **Path/Task List**

This option displays the path/task list screen (DKNSMI7-01). This screen shows the processing path/task list for an individual unit of work. (The workflow determines the processing path.)

B **Browse UOW**

This option displays the browse screen (DKNSMI6-01) (see Figure 4-23 on page 4-44). This screen contains all detailed data that is associated with the unit of work.

E **Edit UOW**

This option displays the edit screen (DKNSMI5-01) (see Figure 4-22 on page 4-42). If you are an authorized operator, this screen lets you change data on the unit-of-work database.

xxxx **CPCS Application Task**

This option shows the 4-character name of a CPCS application task that is to process the string represented by that unit of work. For example, enter LIST to start a DKNLIST task to produce a string listing for the corresponding CPCS Mass data set string.

You can then do one the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMI4-01–Unit-of-Work List Relationship Display Screen

For the task that you select, the unit-of-work list relationship display screen (DKNSMI4-01) provides, for each unit of work, a line of associated information. It shows the units of work that have a parent or child relationship to the selected unit of work.

```
DKNSMI4-01                        System Manager              Date : 12/11/1995
Page :  001                  - Unit of Work List -            Time : 13:47:17
                              Relationship Display            Id   : CPCSOPER

Option R String Name              Tg# St                       Amount     Count

       S 0011-1-00-00-00-00-I-000 0011 R                     250,565.47     256
       C 0011-1-R -00-00-00-D-000 0011 R                           0.00      37
       C 0011-1-01-00-00-00-D-000 0011 R                      57,106.38      40
       C 0011-1-02-00-00-00-D-000 0011 R                      36,603.67      58
       C 0011-1-03-00-00-00-D-000 0011 R                           0.00       1
       C 0011-1-04-00-00-00-D-000 0011 R                      58,371.44      32
       C 0011-1-05-00-00-00-D-000 0011 R                       1,103.10       7
       C 0011-1-06-00-00-00-D-000 0011 R                       8,653.60       7
       C 0011-1-07-00-00-00-D-000 0011 R                       4,291.50      14
       C 0011-1-08-00-00-00-D-000 0011 R                         121.40       5
       C 0011-1-09-00-00-00-D-000 0011 R                       4,251.75      20
       C 0011-1-10-00-00-00-D-000 0011 R                      74,368.13       7

Option:  R = Relationship    P = Path/Task List       B = Browse UOW
         E = Edit UOW        xxxx = CPCS Application Task


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-20. DKNSMI4-01 Unit-of-Work List Relationship Display Screen

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

R The relationship to the selected unit of work. The values are:

- **P** A parent to the unit of work
- **C** A child to the unit of work
- **S** The unit of work that you selected.

String Name The string name for the unit of work.

Tg# The tracer-group number for the unit of work.

St The status of the unit of work:

- **R** Ready. A CPCS task created the unit of work, which can now start moving through its workflow assignments.
- **D** Deleted. The CPCS Mass data set string that corresponds to this unit of work is deleted from the CPCS Mass data set.

Amount The currency volume that is associated with this unit of work.

Count The number of items that are associated with this unit of work.

Operator Response: You can select any unit of work in the list and request more information. In the **Opt** column next to the information for the unit of work that you want to look at or change, type one of the following option codes:

R **Relationship**

This option displays a screen that shows the relationship between the parent and child units of work.

P **Path/Task List**

This option displays a screen that shows a list of application tasks that will process the string represented by the unit of work.

B **Browse UOW**

This option displays a screen that lets you view the unit-of-work data.

E **Edit UOW**

This option displays a screen that allows you to modify certain fields within the unit-of-work record.

xxxx **CPCS Application Task**

This option shows the 4-character name of a CPCS application task that is to process the string represented by that unit of work. For example, enter LIST to start a DKNLIST task to produce a string listing for the corresponding CPCS Mass data set string.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the task list.
- Press **PF8** to scroll forward through the task list.

DKNSMI7-01–Path/Task List Screen

The Path/Task List screen (DKNSMI7-01) shows the task assignments for a unit of work. This screen lists the tasks in the sequence in which they process and gives you processing data about the tasks. It shows the processing path/task list for an individual unit of work.

```
DKNSMI7-01                        System Manager              Date : 12/11/1995
Page :  001                     - Path/Task List -            Time : 13:58:52
                        UOW 0023-1-00-00-00-00-I-000          Id   : CPCSOPER

 Task     Ver  Start      End    Sta SCC   UCC  Prty Cyc Patt  Entry Tracr Pass

DKNHCDM   02  13:15:32  13:16:50  C  S000  U000      05  010   0023   0023   1
DKNDVUP   01  13:16:51  13:16:54  C  S000  U000      05  010   0023   0023   1
DKNDIST   02  13:16:54  13:17:26  C  S000  U000      05  010   0023   0023   1



DKNSMI7 00003  This is the last page of data to display.
PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-21. DKNSMI7-01 Path/Task List Screen

This screen shows the following fields for a specific unit of work:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Task The task name of this workflow entry.

Ver The dispatching version or task-profile number of this workflow entry.

Start The start time for this task.

End The end time for this task.

Sta The current status for this task. The values are:

- **P** Pending. This status indicates that the task is waiting for its respective UOWs to be satisfied.
- **R** Ready. This status indicates a task with satisfied UOWs.
- **C** Complete. This status indicates the tasks that completed successfully or abnormally or have been cancelled.

SCC The system return code that is associated with this work.

UCC The user return code that is associated with this work.

Prty	The priority for this work. The valid range is 0 through 9 (0=lowest, 9=highest).
Cyc	The cycle number of this work.
Patt	The sort-pattern number of this work.
Entry	The entry number for this work.
Tracr	The tracer-group number for this work.
Pass	The pass that is associated with this work.

Operator Response: You can do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the task list.
- Press **PF8** to scroll forward through the task list.

DKNSMI5-01–Edit Screen

The edit screen (DKNSMI5-01) is the first edit screen for a unit of work. If you are an authorized operator, this screen lets you change data on the unit-of-work database.

```
DKNSMI5-01                        System Manager            Date : 12/11/1995
                                     - Edit -               Time : 13:47:05
                         UOW 0011-1-00-00-00-00-I-000       Id   : CPCSOPER

   UOW Id      : 199605800000002          Tracer Group : 0011
   Cycle       : 01                       Type         : F
   Endpoint    : 00000000                 Category     : 01
   Pattern     : 001                      UOW Status   : READY
   Amount      :               250,565.47 Count        :     256
   Create Task : DKNMICR                  Create Time  : 13:45:21
   Owner Site  :                          Process Site :
   User Field1 :                          User Field2  :
   Group       : 000                      Class        : 000

                                User UOW Notes









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-22. DKNSMI5-01 Edit Screen

This screen shows the following fields for a specific unit of work:

Note: You can update the highlighted fields.

UOW Id
The unique, 15-digit identifier (ID) for the unit of work, in the following format:

`CCYYDDDNNNNNNNN`

where:

- **CC** The century of the unit-of-work allocation
- **YY** The Julian year of the unit-of-work allocation
- **DDD** The Julian day of the unit-of-work allocation
- **NNNNNNNN** The unique serial number, generated internally by Enhanced System Manager.

Cycle
The 2-character cycle number for the unit of work.

Endpoint
The 8-digit endpoint that is associated with this unit of work. For a unit of work with no endpoint value, this field contains zeros.

Pattern
The 3-digit sort type for the unit of work.

Amount	The captured amount for the unit of work. This field can contain up to 18 digits.
Create Task	The task that closed this unit of work for output.
Owner Site	The site that “owns” the selected unit of work.
Process Site	The site that is “processing” the selected unit of work.
User Field1	The first user level grouping field for the unit of work.
Group	The 3-digit, group-code assignment for the unit of work. You can update this field.
Tracer Group	The tracer-group number that is associated with this unit of work.
Type	The type-code assignment of this unit of work.
Category	The category assignment of this unit of work.
UOW Status	The current status of this unit of work. The values are: **R** Ready. A CPCS task created the unit of work, which can now start moving through its workflow assignments. **D** Deleted. The CPCS Mass data set string that corresponds to this unit of work is deleted from the CPCS Mass data set.
Count	The item count for the unit of work. This field can contain up to 5 digits.
Create Time	The time that this unit of work was closed for output.
User Field2	The second user level grouping field for the unit of work.
Class	The 3-digit, class-code assignment for this unit of work. You can update this field.
User	The 250-character user note pad field for this unit of work. You can update this field.

Operator Response: To update a highlighted field, type over the value that is currently in the field and press **ENTER**. The edit screen (DKNSMI5-01) refreshes and the new values appear. You can do one of the following:

- Press **ENTER** to accept the new values.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to reject the new values.

DKNSMI6-01–Browse Screen

The browse screen (DKNSMI6-01) is the first screen on which you can browse all detailed information about a unit of work.

```
DKNSMI6-01                        System Manager              Date : 12/11/1995
                                    - Browse -                Time : 13:58:38
                         UOW 9999-1-01-00-00-00-D-001         Id   : CPCSOPER

   UOW Id      : 199534500000004          Tracer Group : 9999
   Cycle       : 05                       Type         : F
   Endpoint    : 00000000                 Category     : 50
   Pattern     : 249                      UOW Status   : READY
   Amount      :             1,364,832.65 Count        :    2124
   Create Task : DKNDIST                  Create Time  : 13:14:42
   Owner Site  :                          Process Site :
   User Field1 : FIRST                    User Field2  :
   Group       : 000                      Class        : 000

                                User UOW Notes









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-23. DKNSMI6-01 Browse Screen

This screen shows the following fields for a specific unit of work:

UOW Id
The unique, 15-digit ID for the unit of work, in the following format:

CCYYDDDNNNNNNNN

where:

- **CC** The century of the unit of work allocation
- **YY** The year of the unit of work allocation
- **DDD** The Julian day of the unit of work allocation
- **NNNNNNNN** The unique serial number, generated internally by Enhanced System Manager.

Cycle
The 2-character cycle for the unit of work.

Endpoint
The 8-digit endpoint that is associated with this unit of work. For units of work with no endpoint value, this field contains zeros.

Pattern
The 3-digit sort type for the unit of work.

Amount
The captured amount for the unit of work. This field can contain up to 18 digits.

Create Task
The task that closed the string represented by this UOW, for output.

Owner Site The site that “owns” the selected unit of work.

Process Site The site that is “processing” the selected unit of work.

User Field1 The first user level grouping field for the unit of work.

Group The 3-digit, group-code assignment for the unit of work.

Tracer Group The tracer-group number that is associated with this unit of work.

Type The type-code assignment of this unit of work.

Category The category assignment of this unit of work.

UOW Status The current status of this unit of work. The values are:

- **Ready** The string was written to the mass data set. The unit of work can now be processed by application tasks as defined in its workflow.
- **Deleted** The Mass data set string that corresponds to this unit of work is deleted from the Mass data set.

Count The item count for the unit of work. This field can contain up to 5 digits.

Create Time The time that the string represented by this unit of work was closed for output.

User Field2 The second user level grouping field for the unit of work.

Class The 3-digit, class-code assignment for this unit of work.

User The 250-character user note pad field for this unit of work.

Operator Response: You can do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

Workflow Definition Screens

The following workflow definition screens let you perform sort-pattern generation, the subsequent customization of workflow and task-profiles, and the migration of those workflows (from database level to database level):

- DKNSMW0-01–Workflow Component Menu
- DKNSMW9-01–Database Selection Menu - Workflow
- DKNSMW1-01–Workflow Selection Criteria
- DKNSMW2-01–Workflow Entries List
- DKNSMW3-01–Workflow Record Detail
- DKNSMWB-01–Workflow Migration
- DKNSMWC-01–Workflow Migration Summary
- DKNSMW6-01–Generation Workflow
- DKNSMS1-01–Task Profile List - Production
- DKNSMS2-01–Task Profile Detail - Production
- DKNSMS2-02–Task Profile Detail - Production
- DKNSMW4-01–Model Workflow List
- DKNSMW5-01–Model Workflow Detail
- DKNSMWR-01–Dynamic Workflow Rules List
- DKNSMWR-02–Dynamic Workflow Rules List
- DKNSMWR-03–Dynamic Workflow Rules List
- DKNSMWR-04–Dynamic Workflow Rules List
- DKNSMWR-05–Dynamic Workflow Rules List
- DKNSMR1-01–Dynamic Workflow Rule Creation
- DKNSMR2-01–Dynamic Workflow Rule Summary Create

The following sections describe each of these screens.

DKNSMW0-01–Workflow Component Main Menu Screen

The workflow component main menu screen (DKNSMW0-01) is the second-level menu for the workflow inquiry and workflow maintenance functions. You request this menu from the main menu screen (DKNSMOF-00). This menu passes control to the various workflow database management screens, according to the function that you select. If you can access Enhanced System Manager, you can perform the inquiry functions. If you are an authorized operator, you can perform the maintenance functions.

```
DKNSMW0-01          System Manager Workflow Definition       Date : 12/11/1995
                          Workflow Component Menu            Time : 13:59:39
                                                             Id   : CPCSOPER




                    Option     1) Workflow
                               2) Task Profile
                               3) Model Workflow
                               4) Dynamic Workflow Rules









PF1=Help     PF2=Menu     PF3=End
```

Figure 4-24. DKNSMW0-01 WorkFlow Component Menu Screen

Operator Response: You can do one of the following:

- Select one of the following options from the menu:

1 **Workflow** - When you select option 1, you get the database selection menu - workflow display (DKNSMW9-01), which lets you select an Enhanced System Manager workflow database level for processing.

2 **Task Profile** - When you select option 2, you get the database selection menu - workflow screen (DKNSMW9-01), which lets you select an Enhanced System Manager workflow database level for processing.

3 **Model workflow** - When you select option 3, you get the database selection menu - workflow screen (DKNSMW9-01), which lets you select an Enhanced System Manager workflow database level for processing.

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

4 **Dynamic Workflow Rules** - When you select option 4, you get the “Dynamic Workflow Rules List” screen (DKNSMWR), which displays the existing DWA rules; this allows you to review the existing DWA rules or to create new DWA rules.

DKNSMW9-01–Database Selection Menu - Workflow

The Database Selection Menu - Workflow screen (DKNSMW9-01) displays an option for each logical workflow level defined in the Enhanced System Manager Workflow Database Module (DKNSMDB). These logical levels are displayed for workflows, task profiles, and model workflows.

```
DKNSMW9-01          System Manager Workflow Definition       Date : 12/11/1995
                    Database Selection Menu - Workflow       Time : 16:02:12
                                                             Id   : CPCSOPER



                    Option     1) PRODUCTION
                               2) DEVELOPMENT
                               3) ARCHIVE
                               4) HPTS_POD
                               5) CONV_POD
                               6) INCLEARINGS
                               7) STATEMENTS
                               8) CASH_MGMT









PF1=Help    PF2=Menu    PF3=End    PF7=Backward    PF8=Forward
```

Figure 4-25. DKNSMW9-01 Database Selection Menu - Workflow

Select one of the following database levels from the menu:

1 PRODUCTION

2 DEVELOPMENT

Note: The Production and Development database levels are defined DKNSMDBL macro. Up to eight database levels can be defined by the user. See “Adding a New Workflow Database Level” on page 3-4 for more information.

3 ARCHIVE[1]

4 HPTS_POD[1]

5 CONV_POD[1]

6 INCLEARINGS[1]

7 STATEMENTS[1]

8 CASH_MGMT[1]

[1] These options were added by customizing the DKNSMDB module. Only PRODUCTION or DEVELOPMENT are delivered with the base product. For more information, see “Adding a New Workflow Database Level” on page 3-4.

The workflow component that you selected on the previous menu, determines which of the following menus you get for the selected database level:

- Workflow Selection Criteria menu (DKNSMW1-01)
- Task Profile List menu (DKNSMS1-01)
- Model Workflow List menu (DKNSMW4-01)

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward.
- Press **PF8** to scroll forward.

DKNSMW1-01–Workflow Selection Criteria

The workflow selection criteria screen (DKNSMW1-01) lets you select the subset of workflow entries to list.

```
DKNSMW1-01            System Manager Workflow Definition      Date : 12/11/1995
                   Workflow Selection Criteria - DEVELOPMENT   Time : 15:06:46
                                                               Id   : CPCSOPER


                            Sort Pattern:
                                    Pass:
                          Pocket History:
                             String Type:
                                Endpoint:
                                Category:




              Press <Enter> to select ALL workflow entries.




PF1=Help  PF2=Menu  PF3=End
```

Figure 4-26. DKNSMW1-01 Workflow Selection Criteria

This screen lets you enter selection criteria for the following fields:

Sort Pattern The sort pattern that is associated with this workflow entry

Pass The MICR pass that is associated with this workflow entry

Pocket History The pass-pocket history that is associated with this workflow entry

String Type The string type that is associated with this workflow entry

Endpoint The endpoint number that is associated with this workflow entry

Category The category that is associated with this workflow entry.

Operator Response: You can do one of the following:

- Press **ENTER** to get a list of all workflow entries.
- Type data in as many selection fields as you want and press **ENTER**.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to CPCS.

DKNSMW2-01–Workflow Entries List

The workflow entries list screen (DKNSMW2-01) lists the workflow entries that match the selection criteria specified in the DKNSMW1-01 screen.

```
DKNSMW2-01            System Manager Workflow Definition      Date : 12/11/1995
Page :  001          Workflow Entries List - DEVELOPMENT      Time : 15:07:06
                                                              Id   : CPCSOPER

          Opt      Entry      Endpoint  Bank  Category   Description     Type

               0101R 000000D  00000000   001     30      SRej D P1
               0101000000**R  00000000   001     32      SRej R-Stg
               010100000000D  00000000   001     31      MDIS Rej
               010100000000I  00000000   001     01      I-Stg P1
               010100000000M  00000000   001     20      00-M-Stg
               010100000000R  00000000   001     34      SRej Con 1
               010100000077M  00000000   001     20      77-M-Stg
               010101000000D  00000000   001     50      Rehandle D
               010102000000D  00000000   001     50      Rehandle D
               010104000000D  77776666   001     70      Onus QKill
               010105000000D  00000001   001     90      Trans Kill
               010106000000D  00050001   001     90      Trans Kill

Option:  B = Browse    S = Select    D = Delete    E = Edit    M = Model


PF1=Help  PF2=Menu  PF3=End  PF4=Select All  PF5=Unselect All  PF6=Migrate
PF7=Backward  PF8=Forward  PF9=Generate
```

Figure 4-27. DKNSMW2-01 Workflow Entries List Screen

This screen shows the following fields:

Page
The page number. This is a variable field. To go to another page of this screen, move the cursor to the Page field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt
The input field for the option that you select.

Entry
The key value of this workflow entry, in the string format `SSSPHHHHHHHHT`, where:

SSS	The sort pattern
P	The pass
HHHHHHHH	The pass-pocket history
T	The string type.

Endpoint
The endpoint number that is associated with this workflow entry.

Bank
The bank that is associated with this workflow entry.

Category
The category that is associated with this workflow entry (obtained from the model workflow that corresponds to this entry).

Category Desc
The category description that is associated with this workflow entry (obtained from the model workflow that corresponds to this entry).

Type The type of workflow record: (Prime) or (HSRR)

Operator Response: You can perform any of the available options on any entry in the list. In the **Opt** column next to the entry with which you want to work, type one of the following option codes and press **ENTER**:

B **Browse**

This option lets you browse this workflow entry.

S **Select**

This option lets you select this workflow entry for migration to another database level.

Note: Migration occurs when you select the migration PF key.

D **Delete**

This option lets you delete this workflow entry.

E **Edit**

This option lets you edit this workflow entry.

M **Model**

This option lets you copy this entry's data to a new workflow entry (a new key value).

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to select all workflows that meet the selection criteria specified on the Workflow Selection Criteria (DKNSMW1-01) menu for migration.

  Note: Migration occurs when the migration PF key is selected.

- Press **PF5** to reset all current selected workflow entries.
- Press **PF6** to migrate all selected workflow entries to another database level.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.
- Press **PF9** to generate workflow entries for a sort pattern.

DKNSMW3-01–Workflow Record Detail Screen

The workflow record detail screen (DKNSMW3-01) displays the detailed data that is associated with an individual workflow entry.

```
DKNSMW3-01            System Manager Workflow Definition      Date : 12/11/1995
Page :  001          Workflow Record Detail - DEVELOPMENT     Time : 13:47:42
                                   EDIT                       Id   : CPCSOPER

                     Entry     Endpoint  Bank Category  Description  Entry Type
                001100000000I  00000000   001    01     I-Stg P1

                         Opt    Task     Ver     Prty   Auto
                              DKNDIST     01      5      1









Option:  T = Task Profile    I = Insert   D = Delete


PF1=Help  PF2=Menu  PF3=End  PF7=Fwrd  PF8=Bwrd
```

Figure 4-28. DKNSMW3-01 Workflow Record Detail Screen

This screen shows the following fields:

Page
The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Entry
The key value of this workflow entry, in the string format `SSSPHHHHHHHHT`, where:

SSS	The sort pattern
P	The pass
HHHHHHHH	The pass-pocket history
T	The string type.

Endpoint
The endpoint number that is associated with this workflow entry.

Bank
The bank that is associated with this workflow entry.

Category
The category that is associated with this workflow entry (obtained from the model workflow that corresponds to this entry).

Category Desc
The category description that is associated with this workflow entry (obtained from the model workflow that corresponds to this entry).

Opt The input field for the option that you select.

Task The task name for this unit-of-work path. All units of work that link to this workflow entry use the unit-of-work path.

Ver The task profile version number of the task named for this unit-of-work path.

Prty The default priority for queuing or dispatching this task.

Auto The automatic dispatching switch of the task named for this unit-of-work path. The values are:

1 Yes
0 No.

Entry Type The type of workflow record: (Prime) or (HSRR)

Operator Response: The function that you select (edit, model, or browse) determines the options that are available to you:

E **Edit**

In the edit mode, type one of the following option codes in the **Opt** column next to the entry with which you want to work:

Task Profile This option lets you look at the task-profile detail entry for the selected task or version.

Insert This option lets you add a task-profile detail entry for the selected task or version.

Delete This option lets you delete a task-profile detail entry for the selected task or version.

M **Model**

In the model mode, type one of the following option codes in the **Opt** column next to the entry with which you want to work:

Task Profile This option lets you look at the task-profile detail entry for the selected task or version.

Insert This option lets you add a task-profile detail entry for the selected task or version.

Delete This option lets you delete a task-profile detail entry for the selected task or version.

B **Browse**

In the browse mode, you can look at the task-profile detail entry for the selected task or version by typing the option code **T** in the **Opt** column next to the entry with which you want to work.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll forward through the workflow entries.
- Press **PF8** to scroll backward through the workflow entries.

DKNSMWB-01–Workflow Migration

The workflow migration screen (DKNSMWB-01) displays the migration database levels.

```
DKNSMWB-01           System Manager Workflow Definition       Date : 12/11/1995
                          Model Workflow Migration            Time : 15:05:56
                                                              Id   : CPCSOPER


              Source      :     DEVELOPMENT

              Destination :     1) PRODUCTION
                                2) DEVELOPMENT

              Clear ALL Destination
 Database Records?    (Y / N)









PF1=Help    PF2=Menu    PF3=End
```

Figure 4-29. DKNSMWB-01 Workflow Migration Screen

Select one of the following database levels for migration to a previously selected record:

1 PRODUCTION

2 DEVELOPMENT

Note: The Production and Development database levels are defined DKNSMDBL macro. Up to 8 data base levels can be defined by the user. See “Adding a New Workflow Database Level” on page 3-4 for more information.

The database selection menu displays an option for each logical workflow level defined in the Enhanced System Manager Workflow Database Module (DKNSMDB). These logical levels are displayed for workflows, task profiles, and model workflows. The Source field indicates the database level that you are using for migration.

Clear ALL Destination

Database Records?

The “Clear ALL...” option allows you to delete the records that are not selected for migration. Valid values for “Clear All...’ are:

“N” = Do not replace the non-selected record in the target data set. Selected records in the target are replaced by the record in the source data set.

“Y” = Delete the non-selected records in the target data set.

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMWC-01–Workflow Migration Summary

The workflow migration summary menu (DKNSMWC-01) displays the selected source and destination levels for migration of workflows, task profiles, or model workflows. You can press **ENTER** for migration or press any PF key to cancel the migration.

```
DKNSMWC-01          System Manager Workflow Definition       Date : 12/11/1995
                    Workflow Model Migration Summary         Time : 15:06:03
                                                             Id   : CPCSOPER



                         Source       :    DEVELOPMENT

                         Destination  :    PRODUCTION



DKNSMWC 00001  Press ENTER to begin MIGRATION...any PF key to cancel.

 PF1=Help    PF2=Menu    PF3=End
```

Figure 4-30. DKNSMWC-01 Workflow Migration Summary

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMW6-01–Workflow Generation

The generate workflow screen (DKNSMW6-01) lets you generate or regenerate workflow entries for a specific sort pattern or for the SPDEF file.

```
DKNSMW6-01             System Manager Workflow Definition     Date : 12/11/1995
                       Workflow Generation - DEVELOPMENT      Time : 15:07:14
                                                              Id   : CPCSOPER


                         Sort Pattern Number (or ALL)
                                     ALL

                            Replace All?  (Y / N)
                                      N

                             (P)rime or (H)SRR?




DKNSMW6 10011  ALL workflows will be replaced by generation.
DKNSMW6 00007  Press ENTER to begin...any PF key to CANCEL.
PF1=Help  PF2=Menu  PF3=End
```

Figure 4-31. DKNSMW6-01 Workflow Generation Screen

This screen shows the following fields:

Sort Pattern Number (or ALL)
The sort pattern that is associated with this workflow entry.

Replace All? (Y,N)
The field that specifies whether to add or delete sort-pattern set endpoints. The values are:

Y Yes. Regenerate all workflow entries for an existing sort-pattern set.

N No (default value). Add or delete only those endpoints that are new or have been deleted previously.

(P)rime or (H)SRR?
This field specifies the entry type for the generated workflow records:

P Prime-pass workflows

H HSRR pass workflows

Operator Response: You can do one of the following:

- Type a sort-pattern number or the value ALL in the Sort Pattern Number field, and press **ENTER**.
- Type a Y or an N (default value) in the Replace All? field. If you specify Y, all workflow entries regenerate for an existing sort-pattern set. (This replaces the first generation of a sort-pattern set.) If you specify N, only new or deleted SPDEF endpoints for an existing sort-pattern set are added or deleted. (This does not affect the first generation of a sort-pattern set.)

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMS1-01–Task-Profile List

The task-profile list screen (DKNSMS1-01) shows a line of descriptive data for each unique set of task-profile entries in the task-profile database.

```
DKNSMS1-01          System Manager Workflow Definition       Date : 12/11/1995
Page : 001            Task Profile List - DEVELOPMENT        Time : 14:40:39
                                                             Id   : CPCSOPER

              Opt     Task     Version         Description

                    DKNDFTP      01          Cold start
                    DKNDFTP      02          Warm start
                    DKNDIST      01          MICR I-String
                    DKNDIST      02          HCDM I-String
                    DKNDIST      03          CONS Rej D-Stg
                    DKNDIST      04          OLMS I-string
               b    DKNDIST      08          DIST opt 8
                    DKNDIVC      01          Cold Start
                    DKNDIVC      02          Warm Start
                    DKNDVUP      01          Resync Update
                    DKNFSCN      01          Fine Sort Cntl
                    DKNHCDM      01          Subpass hcdm

Option:  B = Browse    S = Select    D = Delete    E = Edit    M = Model


PF1=Help  PF2=Menu  PF3=End  PF4=Select All  PF5=Unselect All  PF6=Migrate
PF7=Backward  PF8=Forward
```

Figure 4-32. DKNSMS1-01 Task-Profile List

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the Page field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

Task The task name for this task profile.

Version The task version for this task profile.

Description The description that is associated with this task profile.

Operator Response: You can perform any of the available options on any entry in the list. In the **Opt** column next to the entry with which you want to work, type one of the following option codes and press **ENTER**:

B **Browse**

This option lets you browse this task profile entry.

S **Select**

This option lets you select this task profile entry for migration to another database level.

Note: Migration occurs when you select the migration PF key.

D **Delete**

This option lets you delete this task profile list.

E **Edit**

This option lets you edit this task profile list.

M **Model**

This option lets you copy this entry's data to a new task profile list (a new key value).

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to select all workflows that meet the selection criteria specified on the Task Profile List - Production (DKNS1-01) menu for migration.

  Note: Migration occurs when the migration PF key is selected.
- Press **PF5** to reset all current selected task profile entries.
- Press **PF6** to migrate all selected task profile entries to another database level.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMS2-01–Task-Profile Detail

The task-profile detail screen (DKNSMS2-01) lets you customize dispatching criteria for individual tasks in the CPCS system.

```
DKNSMS2-01           System Manager Workflow Definition       Date : 12/11/1995
                     Task Profile Detail - DEVELOPMENT        Time : 14:41:26
                                   BROWSE                     Id   : CPCSOPER
                        Task:  DKNDIST   Version: 02
           Description: DIST After Prev  Job Type: CPCS Application

   UOW Grouping:   1   Grouping Level:   1      User Level:   0   Entry Type
         None = 0            None = 0                None = 0
    Individual = 1          Subset = 1        User Field 1 = 1
      Category = 2            Pass = 2        User Field 2 = 2
      Endpoint = 3           Entry = 3         Both Fields = 3
          Bank = 4         Pattern = 4
          Flow = 5           Cycle = 5

                      Previous Task Dependency? (Y/N) : Y

 User Data: 1





PF1=Help  PF2=Menu  PF3=End  PF8=Forward
```

Figure 4-33. DKNSMS2-01 - Task-Profile Detail Screen 1

This screen shows the following fields:

Task The task name of the selected task profile.

Version The version number of the selected task profile.

Description
The free-form description of the selected task profile.

Job Type The type of application used with the task profile.

UOW Grouping:
The unit-of-work grouping that identifies the strings that the specified task processes together as a group. In all cases except the individual grouping, the full scheduling criteria are co-dependent on the grouping level. The individual grouping is not dependent on the level because it signals Enhanced System Manager to schedule a run of this task for each created unit of work.

None (0) This task will not process any units of work.

Individual (1)
The unit-of-work grouping for this task profile is at the individual level. Therefore, one copy of the selected task runs for every unit of work.

Category (2)
The unit-of-work grouping for this task profile is for all units of work in the same category. Therefore, one copy of the selected task runs for every unit-of-work set.

Endpoint (3)
The unit-of-work grouping for this task profile is for all units of work with the same endpoint. Therefore, one copy of the selected task runs for every unit-of-work set that shares an endpoint number by grouping level.

Bank (4) The unit-of-work grouping for this task profile is for all units of work in the same bank. Therefore, one copy of the selected task runs for every unit-of-work set that shares a bank number by grouping level.

Flow (5) The unit-of-work grouping for this task profile is for all units of work that have this task or version in their workflow. Therefore, one copy of the selected task runs for every unit-of-work that shares this task profile in its workflow by grouping level.

Grouping Level:
The grouping level, in conjunction with the UOW grouping, determines when Enhanced System Manager schedules a task to run and how many copies of the task are required. Because the cycle and pattern levels span entries, it is necessary to determine when all entries in a cycle are present in the MDS. To do this, activate the end-prime function for the correct cycle when all MICR prime-pass entries are complete.

None (0) This task will not process any units of work.

Subset (1)
The number of subsets for the related entry determines the number of copies scheduled for this task. A subset must be fully processed (that is, all subsequent passes must be completed before any tasks are scheduled).

Note: If MICR capture does not use subset processing, this grouping level is the same as the grouping level of the entry.

Pass (2) The number of passes for the related entry determines the number of copies scheduled for this task. A copy of the task will be scheduled at the end of each prime pass and subsequent pass of the entry. For subset processing, a copy is scheduled at the end of each prime pass and subsequent pass for each subset. This is the lowest grouping level.

Entry (3) The number of entries for the related cycle determines the number of copies run for this task. An entry must be fully processed (that is, all subsequent passes must be completed) before any tasks are scheduled. If specified for an entry that has more than one subset, no scheduling can occur until all passes are completed for all subsets.

Pattern (4)
The number of patterns for the related cycle determines the number of copies scheduled for this task. Before scheduling can occur, you must activate the end-prime function.

Cycle (5) One run of this task is scheduled for this cycle. The end-prime function must be activated for the cycle before any scheduling can occur.

User Level:
Used with the UOW Grouping field and Grouping Level field to further identify a specific UOW grouping. The user fields used by this grouping are specified by the User Level Grouping user exit. See "User Exit #1 for User Level Grouping" on page 3-17 for additional information.

None (0) Do not use the User Fields to determine the grouping characteristics for this task.

User Field 1 (1)
The number of run copies for this task is determined by the combination of the UOW Grouping field, the Grouping Level field, and User Field #1.

User Field 2 (2)
The number of run copies for this task is determined by the combination of the UOW Grouping field, the Grouping Level field, and User Field # 2.

Both Fields (3)
The number of run copies for this task is determined by the combination of the UOW grouping field, the Grouping Level field, User Field #1, and User Field #2.

Entry Type
The type of entry for the external UOW (P) for prime-pass entry and blank to default to the current entry type. This may be used to allow HSRR workflow tasks to wait on prime-pass strings as a dependency.

User Data
User data is character data that is passed to the task being started in the TCBSPARM field of the APTCB.

Data entered in the User Data section of the DKNSMS2 screen must be entered in a format that is recognized by the task being started.

Typically, this is constant data. You may also enter symbolic data that is translated to the actual values for the fields at the time the task is started by ESM.

Supported symbolics for ESM coding:

<B>	Bank
<C>	Cycle number
<C1>	Cycle number (1 char; position 1 if alpha, 2 if numeric)
<CD>	Cycle date
<E>	Entry number
<EP>	Endpoint
<HT>	HSRR tracer number (from TG data set)
<P>	Pass number
<PT>	Prime tracer number (from TG data set)
<S>	String name (string name with dashes)
<S17>	String name (string name without dashes)
<SN>	Sorter number
<SP>	Sort pattern
<T>	Tracer group

Rules for coding symbolic parameters:

1. Symbolics must start with the `'<'` character and end with the `'>'` character.
2. Symbolics may be coded as upper, lower, or mixed case.
3. If a `'<'` is needed in TCBSPARM, code it as `'<<'`.
4. If an invalid symbolic parameter is coded, the translation terminates. TCBSPARM is passed the translated data up to the point where the invalid value was encountered.
5. If a value to be entered is null, the parameter is skipped.
6. Dates are converted to the system date format.
7. If the converted user data is larger than 64 characters, it is truncated to the last valid field that fit, and an error message is given.

   Note: DKNATASK only transfers the first 56 characters from the ESM USER DATA to TCBSPARM.

Examples:

For example, if the User Data for task DKNICRE contains:

```
<b>,<c1>,N
```

this is interpreted as:

```
017,4,N
```

Where:

017 Is the bank number

4 Is the 1-digit cycle

N Is the non-restart ICRE parameter

This example could be used to autostart DKNICRE from ESM.

In the above example, if the task were not associated with a cycle, the cycle would be null, and the data sent in TCBSPARM would be:

```
017,,N
```

Operator Response: You can do one of the following:

- To update a highlighted field, type over the value that is currently in the field and press **ENTER**. DKNSMS2-01 refreshes and displays the new values.
  To accept the new values, press **ENTER** again.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF8** to page forward to DKNSMS2-02.

DKNSMS2-02–Task-Profile Detail

The task-profile detail screen (DKNSMS2-02) lets you customize the dispatching criteria for individual tasks in the CPCS system.

```
DKNSMS2-02          System Manager Workflow Definition       Date : 12/11/1995
                    Task Profile Detail - DEVELOPMENT        Time : 14:42:09
                                 BROWSE                      Id   : CPCSOPER
                       Task:  DKNDFTP   Version:  01
            Description: Cold Start       Job Type: CPCS Application

          Special Time Events                        Time Events (HHMM)
    Cold Start      = 1   1                       Time:
    Warm Start      = 2                          Pause:
    After Endprime  = 3                       Interval: 0010
    After End Cycle = 4

                        External UOW Events
                                     ,
                                     ,
                                     ,
                                     ,
                                     ,




PF1=Help  PF2=Menu  PF3=End  PF7=Backward
```

Figure 4-34. DKNSMS2-02 The Task-Profile Detail Screen Refresh

This task is an example of how to have ESM start a task after a cold start and every ten minutes after that cold start.

This screen shows the following fields:

Task The task name of the selected task profile.

Version The version number of the selected task profile.

Description The free-form description of the selected task profile.

Job Type The type of application used with the Task Profile.

Task (Events) This provides the following field information about task events: Dispatch (task name) When (task name) completes for the (occurrence) time in Level.
The field values are:

Dispatch (task name)
The name of the task to dispatch, as specified in the Task field on this screen.

When: The condition under which to dispatch the task that the Task field specifies.

Occurrence
When the task event completes for a specified time. The values are:

First This task is dependent on the *first* run in the defined level.

Last This task is dependent on the *last* run in the defined level.

Every This task is dependent on *every* run in the defined level.

Level The level in which the task runs. The values are:

1 Subset
2 Cycle.

Special Time Events

The special time events indicate special conditions that cause the task to be initiated:

Cold Start
The cold-start indicator. If you select Cold Start, the task that is associated with this task profile runs during a cold start.

Warm Start
The warm-start indicator. If you select Warm Start, the task that is associated with this task profile runs at warm start.

After Endprime
The after-end-prime indicator. If you select After Endprime, the task that is associated with this task profile runs after you select the end-prime function from the commands menu screen (DKNSMC0-01) on page 4-84.

After End Cycle
The after-end-cycle indicator. If you select After End Cycle, the task that is associated with this task profile runs after the end-cycle task runs.

Time Events

The time events indicate when tasks should be initiated, depending on time:

Time The time of day that must be satisfied before the task that is associated with this task profile can be dispatched. You can specify the time in the HHMM format.

Note: If the time of day is edited for a task profile where the task has already been run at least once, the task shows up in the Complete queue. Therefore, the task is restarted at both the original time of day and at the new time of day. This occurs until the next cold start of ESM.

To stop this from happening, you should not edit an existing task profile that has a time dependency. Instead, you should create a new version of the task, and set up a task suppression rule to stop the task from running at the original

time. This is only necessary until the next cold start of CPCS or ESM occurs.

Pause The length of time that must elapse after the required units of work complete. You can specify the time in the HHMM format.

Interval The interval indicator. If you specify the interval, the task that is associated with this task profile runs once for each interval for the remainder of the cycle. You can specify time in the HHMM format.

Notes:

1. For the PAUSE and INTERVAL functions, the time period is calculated by rounding up from the current time to the next minute, then adding the PAUSE or INTERVAL amount.
2. You can only specify one time event for each task profile. Only the last one is used.

External UOW Events

The external unit-of-work events are:

UOW Creation

The unit-of-work creation field determines which required units of work to dispatch for this task. The external unit-of-work events are additional units of work that must be created for this task to be dispatched; however, the task itself does not use them.

The UOW creation External UOW Event is entered as a pass pocket history in the form of P-P1-P2-P3-P4-T.

For example, if you wish to delete an I-string when the M-string is created, you can create a Task Profile for STGD that has an External UOW Event of 1-00-00-00-00-M. You can put STGD in the workflow for the I-string, and STGD then deletes the I when the M-string UOW is created.

User Data Area

This field lets you pass task-specific start parameters to an application.

Operator Response: You can do one of the following:

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward to DKNSMS2-01.

DKNSMW4-01–Model Workflow List Screen

The model workflow list screen (DKNSMW4-01) displays one line of descriptive data for every model workflow entry in the database.

```
DKNSMW4-01             System Manager Workflow Definition     Date : 12/11/1995
Page : 001             Model Workflow List - DEVELOPMENT      Time : 15:05:44
                                                              Id   : CPCSOPER

Opt  Category  Pass   Short Desc  Endpoint          Model Description
---  --------  ----   ----------  --------          -----------------
        01      0     I-Stg Dflt  00000000    Subpass I-Stg Flow (Default)
        01      1     I-Stg P1    00000000    Prime Pass I-String Workflow
        20      0     M-Stg Dflt  00000000    Subpass M-Stg Flow (Default)
        20      1     00-M-Stg    00000000    Prime Pass M-String Workflow
        21      0     01-M-Stg    00000000    01-M-Stg Flow (Default)
 S      21      1     01-M-Stg    00000000    Interim M-String Workflow
        22      0     50-M-Stg    00000000    88-M-Stg Flow (Default)
        22      1     50-M-Stg    00000000    HSRR 50-M-String Workflow
        23      0     88-M-Stg    00000000    88-M-Stg Flow (Default)
        23      1     88-M-Stg    00000000    Balancing Rework M-Stg Wfl
        25      0     99-M-Stg    00000000    99-M-Stg Flow (Default)
        25      1     99-M-Stg    00000000    Balanced M-String Workflow

Option:  B = Browse    S = Select    D = Delete    E = Edit    M = Model


PF1=Help  PF2=Menu  PF3=End  PF4=Select All  PF5=Unselect All  PF6=Migrate
PF7=Backward  PF8=Forward
```

Figure 4-35. DKNSMW4-01 Model Workflow List Screen

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the PAGE field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Opt The input field for the option that you select.

Category The category that is associated with this model workflow. Certain categories are predefined; others are user defined. See the values on page 1-7.

Pass The pass for which this model workflow applies.

Short Desc The abbreviated description that is associated with this model workflow entry.

Endpoint The endpoint number that is associated with this model workflow entry (obtained from the SPDEF member that corresponds to this entry).

Model Description The description that is associated with this model workflow entry.

Operator Response: In the **Opt** column next to the entry with which you want to work, type one of the following option codes:

B **Browse**

This option lets you browse this task profile entry.

S **Select**

This option lets you select this task profile entry for migration to another database level.

Note: Migration occurs when you select the migration PF key.

D **Delete**

This option lets you delete this task profile entry.

E **Edit**

This option lets you edit this task profile entry.

M **Model**

This option lets you copy this entry's data to a new task profile entry (a new key value).

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to select all workflow entries that meet the selection criteria specified on the Workflow Selection Criteria (DKNSMW1-01) menu for migration.

  Note: Migration occurs when the migration PF key is selected.
- Press **PF5** to reset all current selected workflow entries
- Press **PF6** to migrate all selected workflow entries to another database level.
- Press **PF7** to scroll backward through the active workflows entries.
- Press **PF8** to scroll forward through the active workflow entries.

DKNSMW5-01–Model Workflow Detail Screen

The model workflow detail screen (DKNSMW5-01) displays the detailed data that is associated with a workflow entry.

```
DKNSMW5-01            System Manager Workflow Definition     Date : 12/11/1995
Page :  001          Model Workflow Detail - DEVELOPMENT     Time : 15:06:30
                                  BROWSE                     Id   : CPCSOPER

 Category   Pass       Short Desc   Endpoint         Model Description
     01      0         I-Stg Dflt   00000000   Subpass I-Stg Flow (Default)

                        Opt    Task     Ver     Prty    Auto  Pkt.Hist.  Type
                             DKNHCDM     01      5       1
                             DKNDIST     02      5       1
                             DKNSLST     01      5       1
                             DKNLDIR     01      5       0









Option:  T = TASK PROFILE


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-36. DKNSMW5-01 Model Workflow Detail Screen

This screen shows the following fields:

Page The page number. This is a variable field. To go to another page of this screen, move the cursor to the Page field and type the number of the page that you want to see. The number 999 causes the last page of this screen to appear.

Category The category that is associated with this model workflow. Certain categories are predefined; others are user defined.

Pass The pass to which this model workflow applies.

Short Desc The category description that is associated with this model workflow entry.

Endpoint The endpoint number that is associated with this model workflow entry (obtained from the SPDEF member that corresponds to this entry). The Endpoint is only valid for IBM-defined model workflow categories. User model workflow categories must have an endpoint of 00000000.

Model Description The description that is associated with this model workflow entry.

Opt The input field for the option that you select.

Task The task assigned to this model workflow.

Ver The task profile version number.

Prty The default priority for this task in this workflow. The valid range is 0 through 9 (0=lowest, 9=highest).

Auto The type of invocation indicator for this task. The values are:

0 Manual initiation
1 Automatic initiation.

Pkt Hst The pocket history for the workflow. This field is required for user-defined model workflow categories. It is ignored for IBM model workflow categories.

Type The string type; valid values are I, M, R, and D.

This field is required for user-defined model workflow categories. It is ignored for IBM model workflow categories.

Operator Response: The function that you select (edit, model, or browse) determines the options that are available to you:

E **Edit**

In the edit mode, type one of the following option codes in the **Opt** column next to the entry with which you want to work:

Task Profile This option lets you look at the task-profile detail entry for the selected task or version.

Insert This option lets you add a task-profile detail entry for the selected task or version.

Delete This option lets you delete a task-profile detail entry for the selected task or version.

M **Model**

In the model mode, type one of the following option codes in the **Opt** column next to the entry with which you want to work.

You can also modify any of the other fields displayed on the screen. These modifications are carried forward to all workflows based on this model.

Task Profile This option lets you look at the task-profile detail entry for the selected task or version.

Insert This option lets you add a task-profile detail entry for the selected task or version.

Delete This option lets you delete a task-profile detail entry for the selected task or version.

B **Browse**

In the browse mode, you can look at the task-profile detail entry for the selected task or version by typing the option code **T** in the **Opt** column next to the entry with which you want to work.

You can then do one of the following:

- Press **ENTER** to complete your selection.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the model workflow entries.
- Press **PF8** to scroll forward through the model workflow entries.

DKNSMWR-01–Dynamic Workflow Rules List

The Dynamic Workflow Rules List (DKNSMWR-01) screen displays the existing DWA rules that have been created for ESM. From this menu, you may also enter the ESM SMOF screens used to create new DWA rules.

DKNSMWR-01 (Dynamic Workflow Rules List)

This screen consists of five different screen views. Press the PF10/PF11 keys to scroll left or right to get to the view that contains the information you wish to see.

```
DKNSMWR-01                  System Manager                Date : 08/07/2000
Page :  001         - Dynamic Workflow Rules List -       Time : 10:39:05
                                                          Id   : WAY

Opt Task      Ver  Action   Replacement/Ver  Operator    Rule Created

    DKNDIST   02   REPLACE  DKNDIST     01   WAY      08/04/2000 09:03:21
    DKNKILL   01   REPLACE  DKNKILL     02   WAY      08/04/2000 09:08:28
    DKNMCRE   01   REPLACE  DKNMCRE     09   WAY      08/04/2000 14:13:14
    DKNMCRE   01   REPLACE  DKNMCRE     09   WAY      08/04/2000 14:13:23
    DKNPSCR   01   EXCLUDE                  WAY      08/04/2000 13:09:50









Option:  B = Browse   D = Delete

DKNSMWR 00004  This is the first page of data to display
PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-37. DKNSMWR-01 - DWA Rule List

This screen shows the following fields:

OPT The option the user may select to perform on the rule. Valid options are B (Browse) or D (Delete).

TASK The task name to which the rule applies

VER The task version to which the rule applies

ACTION The action that may be done by the DWA rule. Valid actions are:

- **INCLUDE** The task and version are used in the workflow. This is the default action.
- **REPLACE** The task and version are replaced with a different task and/or version.
- **EXCLUDE** The task is not associated with the UOW being created.
- **USEREXIT** The DWA user exit is used to check whether the action is I, R, or E.

Note: For the actions Include, Replace, and Exclude, enter only the first character (I, R, or E).

REPLACEMENT/VER
The task name and version of the task that are the replacement, if the action is REPLACE.

OPERATOR The user ID of the operator that created the DWA rule.

RULE CREATED
The date and time the rule was created.

OPERATOR RESPONSE
You can do one of the following:

- You may browse the DWA rule by placing a “B” in the OPT column and pressing ENTER.
- You may delete a DWA rule by placing a “D” in the OPT column and pressing ENTER.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF4 to create a new DWA rule.
- Press PF7 to page backward in the DWA rule list.
- Press PF8 to page forward in the DWA rule list.
- Press PF10 to scroll left to the previous view of the DKNSMWR screen.
- Press PF11 to scroll right to the next view of the DKNSMWR screen.

DKNSMWR-02 (Dynamic Workflow Rules List)

```
DKNSMWR-02                        System Manager
Page :  001             - Dynamic Workflow Rules List -      Date : 08/07/2000
                                                             Time : 11:05:41
                                                             Id   : WAY

Opt Task      Ver  Crt Task  Cyc  Sorter  Pat  Bank    Endpoint

    DKNDIST   02   DKNLIST    L     04    005  022     92222222
    DKNKILL   01
    DKNMCRE   01
    DKNMCRE   01
    DKNPSCR   01









Option:  B = Browse   D = Delete

PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-38. DKNSMWR-02 -- Dynamic Workflow Rules List

This screen shows the following fields:

OPT The option the user may select to perform on the rule. Valid options are B (Browse) or D (Delete).

TASK The task name to which the rule applies.

VER The task version to which the rule applies.

CRT TASK The name of the task that created the UOW.

CYC The cycle on which the UOW was created.

SORTER The sorter associated with the UOW.

PAT The sort pattern for the UOW.

BANK The bank number associated with the string.

ENDPOINT The endpoint number for the UOW.

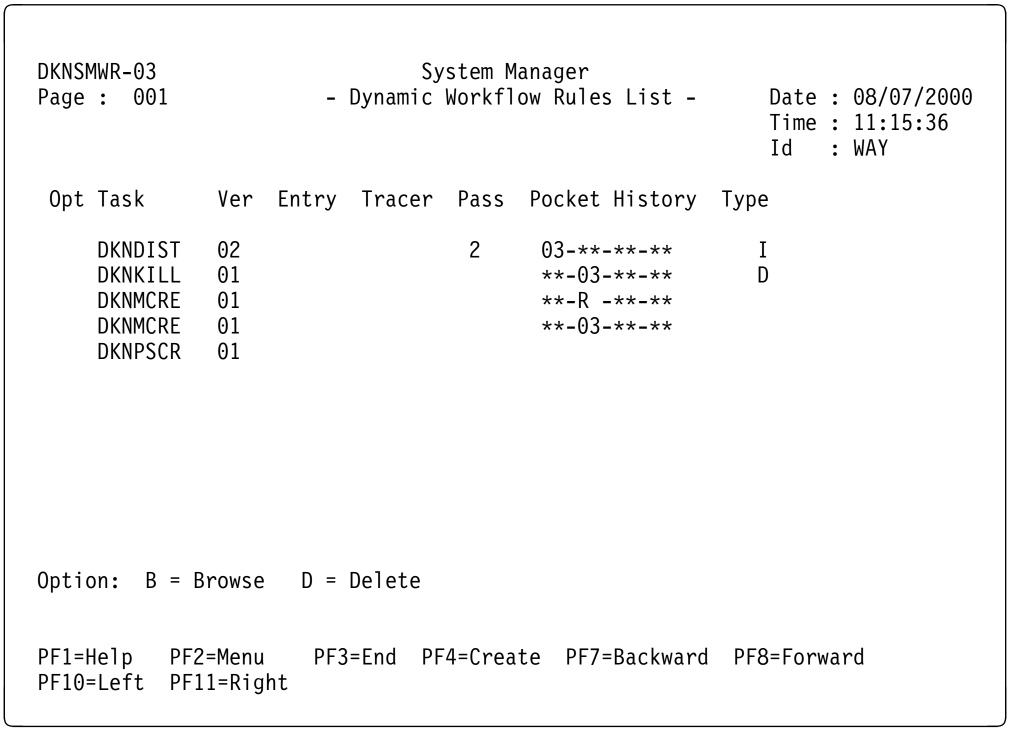
OPERATOR RESPONSE

You can do one of the following:

- You may browse the DWA rule by placing a “B” in the OPT column and pressing ENTER.
- You may delete a DWA rule by placing a “D” in the OPT column and pressing ENTER.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF4 to create a new DWA rule.
- Press PF7 to page backward in the DWA rule list.
- Press PF8 to page forward in the DWA rule list.

- Press PF10 to scroll left to the previous view of the DKNSMWR screen.
- Press PF11 to scroll right to the next view of the DKNSMWR screen.

DKNSMWR-03 (Dynamic Workflow Rules List)



```
DKNSMWR-03                      System Manager
Page :  001             - Dynamic Workflow Rules List -      Date : 08/07/2000
                                                             Time : 11:15:36
                                                             Id   : WAY

 Opt Task      Ver  Entry  Tracer  Pass  Pocket History  Type

     DKNDIST   02                   2     03-**-**-**       I
     DKNKILL   01                         **-03-**-**       D
     DKNMCRE   01                         **-R -**-**
     DKNMCRE   01                         **-03-**-**
     DKNPSCR   01






Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-39. DKNSMWR-03 -- Dynamic Workflow Rules List

This screen shows the following fields:

OPT	The option the user may select to perform on the rule. Valid options are B (Browse) or D (Delete).
TASK	The task name to which the rule applies.
VER	The task version to which the rule applies.
ENTRY	The entry number for the UOW.
TRACER	The tracer for the UOW.
PASS	The pass for the string (valid values are 1 - 4).
POCKET HISTORY	The pocket history for the string. For DWA rules, asterisks (**) may be used as a wildcard to indicate that any pocket value can be considered a match for that pocket. Any combination of valid pocket numbers may be entered. For example, pocket history **-R -**-** will match any string that has an “R” in the second pocket of the string name.
TYPE	The string type; valid types are I, D, R, M, or E.

OPERATOR RESPONSE

You can do one of the following:

- You may browse the DWA rule by placing a “B” in the OPT column and pressing ENTER.
- You may delete a DWA rule by placing a “D” in the OPT column and pressing ENTER.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF4 to create a new DWA rule.
- Press PF7 to page backward in the DWA rule list.
- Press PF8 to page forward in the DWA rule list.
- Press PF10 to scroll left to the previous view of the DKNSMWR screen.
- Press PF11 to scroll right to the next view of the DKNSMWR screen.

DKNSMWR-04 (Dynamic Workflow Rules List)

```
DKNSMWR-04                        System Manager
Page :  001             - Dynamic Workflow Rules List -      Date : 08/07/2000
                                                             Time : 11:29:25
                                                             Id   : WAY

 Opt Task      Own Site  ProcSite  UserFld1  UserFld2  StartTime  StopTime

     DKNDIST
     DKNKILL
     DKNMCRE
     DKNMCRE
     DKNPSCR









 Option:  B = Browse   D = Delete


 PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
 PF10=Left  PF11=Right
```

Figure 4-40. DKNSMWR-04 -- Dynamic Workflow Rules List

This screen shows the following fields:

OPT The option the user may select to perform on the rule. Valid options are B (Browse) or D (Delete).

TASK The task name to which the rule applies.

OWN SITE The owning site of the UOW.

PROCSITE The processing site of the UOW.

USERFLD1 The User Field 1 data that is specified in the task profile for the task.

USERFLD2 The User Field 2 data that is specified in the task profile for the task.

STARTTIME The time that the DWA rule becomes active.

STOPTIME The time that the DWA rule becomes inactive.

OPERATOR RESPONSE

You can do one of the following:

- You may browse the DWA rule by placing a “B” in the OPT column and pressing ENTER.
- You may delete a DWA rule by placing a “D” in the OPT column and pressing ENTER.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF4 to create a new DWA rule.
- Press PF7 to page backward in the DWA rule list.
- Press PF8 to page forward in the DWA rule list.
- Press PF10 to scroll left to the previous view of the DKNSMWR screen.
- Press PF11 to scroll right to the next view of the DKNSMWR screen.

DKNSMWR-05 (Dynamic Workflow Rules List)

```
DKNSMWR-05                        System Manager
Page :  001             - Dynamic Workflow Rules List -      Date : 08/07/2000
                                                             Time : 11:29:25
                                                             Id   : WAY

Opt Task       Low Count  High Count           Low Amount          High Amount

    DKNDIST
    DKNKILL
    DKNMCRE
    DKNMCRE
    DKNPSCR            0      55,500                    0   444,000,000,000,000


Option:  B = Browse   D = Delete


PF1=Help   PF2=Menu    PF3=End  PF4=Create  PF7=Backward  PF8=Forward
PF10=Left  PF11=Right
```

Figure 4-41. DKNSMWR-05 -- Dynamic Workflow Rules List

This screen shows the following fields:

OPT The option the user may select to perform on the rule. Valid options are B (Browse) or D (Delete).

TASK The task name to which the rule applies.

LOW COUNT The low limit of items in the string. This rule is a match for a UOW if the UOW contains at least as many items as the low count.

HIGH COUNT The high limit of items in the string. This rule is a match for a UOW if the UOW contains no more items than the high count.

LOW AMOUNT The low limit of the dollar amount in the string. This rule is a match for a UOW if the UOW contains at least as much money as the low amount. This field does not show cents.

HIGH AMOUNT The high limit of dollar amount in the string. This rule is a match for a UOW if the UOW contains no more money than the high amount. This field does not show cents.

- You may browse the DWA rule by placing a “B” in the OPT column and pressing ENTER.
- You may delete a DWA rule by placing a “D” in the OPT column and pressing ENTER.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF4 to create a new DWA rule.
- Press PF7 to page backward in the DWA rule list.
- Press PF8 to page forward in the DWA rule list.
- Press PF10 to scroll left to the previous view of the DKNSMWR screen.
- Press PF11 to scroll right to the next view of the DKNSMWR screen.

DKNSMR1-01—Dynamic Workflow Rule Creation

The Dynamic Workflow Rule Creation screen is used to enter the criteria for DWA rules. You may enter data for any of the fields displayed on the screen. When ESM creates a UOW that contains a task in its workflow that matches the criteria in the DWA rule, ESM associates that UOW with the task that the DWA rule describes.

```
DKNSMR1-01                        System Manager
                        - Dynamic Workflow Rule Creation -   Date : 08/07/2000
                                                             Time : 11:29:25
                                                             Id   : WAY

     Task Name    :                Start (HHMM) :
     Task Version :                Stop  (HHMM) :
     Action       :
     Replace Task :                Owner Site   :
     Repl Version :                Process Site :

     Low Amount   :                High Amount  :
     Low Count    :                High Count   :
     Create Task  :                Bank         :
     Cycle        :                Sorter       :
     Sort Pattern :                Endpoint     :
     Entry        :                Tracer       :
     Pass         :
     Pockets      :                User Field 1 :
     String Type  :                User Field 2 :


PF1=Help  PF2=Menu  PF3=End  PF5=Reset
```

Figure 4-42. DKNSMR1-01 -- Dynamic Workflow Rule Creation

This screen shows the following fields:

TASK The task name to which the rule applies.

VER The task version to which the rule applies.

ACTION The action that may be done by the DWA rule. Valid actions are:

INCLUDE The task and version are used in the workflow. This is the default action.

REPLACE The task and version are replaced with a different task and/or version.

EXCLUDE The task is not associated with the UOW that is being created.

U The DWA user exit is used to check whether the action is I, R, or E.

Note: For the actions Include, Replace, and Exclude, enter only the first character (I, R, or E).

REPL VERSION
The task name and version of the task that is the replacement if the action is REPLACE.

LOW AMOUNT
The low limit of the dollar amount in the string. This rule is a match for a UOW if the UOW contains at least as much money as the low amount. This field does not show cents.

HIGH AMOUNT
The high limit of dollar amount in the string. This rule is a match for a UOW if the UOW contains no more money than the high amount. This field does not show cents.

LOW COUNT The low limit of items in the string. This rule is a match for a UOW if the UOW contains at least as many items as the low count.

HIGH COUNT The high limit of items in the string. This rule is a match for a UOW if the UOW contains no more items than the high count.

CREATE TASK
The name of the task that created the UOW.

CYCLE The cycle on which the UOW was created.

SORT PATTERN
The sort pattern for the UOW.

ENTRY The entry number for the UOW.

PASS The pass for the string (valid values are 1 - 4).

POCKETS The pocket history for the string. For DWA rules, asterisks (**) may be used as a wildcard to indicate that any pocket value can be considered a match for that pocket. Any combination of valid pocket numbers may be entered. For example, pocket history **-R -**-** matches any string that has an R in the second pocket of the string name.

STRING TYPE
The string type; valid types are I, D, R, M, or E.

START The time that the DWA rule becomes active.

STOP The time that the DWA rule becomes inactive.

OWNER SITE The owning site of the UOW.

PROCESS SITE
The processing site of the UOW.

BANK The bank number associated with the string.

SORTER The sorter associated with the UOW.

ENDPOINT The endpoint number for the UOW.

TRACER The tracer for the UOW.

USER FIELD 1
The User Field 1 data that is specified in the task profile for the task.

User FIELD 2 The User Field 2 data that is specified in the task profile for the task.

OPERATOR RESPONSE
You can do one of the following:

- Update a highlighted field, type over the value that is currently in the field, and press ENTER. DKNSMR1-01 refreshes and displays the new values.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.
- Press PF5 to reset all values on the screen.

DKNSMR2-01—Dynamic Workflow Rule Summary Create

The Dynamic Workflow Rule Summary Create screen summarizes all criteria entered on the DKNSMR1-01 screen in any easy-to-view layout. If the criteria are correct, the operator creates the rule by pressing the ENTER key.

```
DKNSMR2-01                        System Manager
                        - Dynamic Workflow Rule Summary -    Date : 08/07/2000
                                     Create                  Time : 11:29:25
                                                             Id   : WAY

         Task Name    :
         xxxxxxxxx    :
            .
            .
            .
         xxxxxxxxx    :









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-43. DKNSMR2-01 -- Dynamic Workflow Rule Summary

This screen shows the following fields that were entered from the DKNSMR1-01 screen.

xxxxxxxxx indicates the fields that were changed.

See the “DKNSMR1-01—Dynamic Workflow Rule Creation” on page 4-80 section of this manual for descriptions of the fields that are being changed.

OPERATOR RESPONSE

You can do one of the following:

- To accept the changes and create the DWA rule, press the ENTER key.
- Press PF1 to get help.
- Press PF2 to return to the main ESM menu.
- Press PF3 to return to the previous menu.

Supervisor Function Screens

The supervisor function screens let you perform high level functions within Enhanced System Manager such as the setting of ENDPRIME for cycles, generating Units of Work (UOWs), etc:

- DKNSMC0 - Supervisor Functions Main Menu Screen
- DKNSMC1 - Endprime Screen
- DKNSMC2 - UOW Generation Screen
- DKNSMC3 - MDS String List Selection Criteria Display
- DKNSMC4 - UOW Generation Workflow Selection Screen
- DKNSME1 - Event List Selection Menu
- DKNSME2 - Service Processor Selection Menu
- DKNSMF0 - CPCS Feature List Menu
- DKNSMS0 - Site Management Main Menu

The following sections describe each of these screens.

DKNSMC0-01–Supervisor Functions Main Menu Screen

The supervisor functions menu screen (DKNSMC0-01) shows all supervisor functions that Enhanced System Manager supports. To request this screen, select option 4 from the Enhanced System Manager main menu (see Figure 4-1 on page 4-4).

```
DKNSMC0-01                        System Manager              Date : 12/11/1995
                       - Supervisor Functions Main Menu -     Time : 13:59:47
                                                              Id   : CPCSOPER



        Selection:     1) Endprime
                       2) UOW Generation
                       3) Event Management
                       4) Feature Management
                       5) Site Management
                       6) Diagnostic Facility









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-44. DKNSMC0-01 Supervisor Functions Main Menu

Operator Response: You can do the following:

- Select option 1, **Endprime**. When you select option 1, the DKNSMC1-01 screen appears, which lists the end-prime status for each cycle. If you are an authorized operator, you can use this list to update that end-prime status.
- Select option 2, **UOW Generation**. When you select option 2, the DKNSMC2-01 screen appears, which generates a UOW for the entered string. To begin UOW generation, complete the STRING NAME. If you do not know the STRING NAME, complete CYCLE. ENTRY and STRING TYPE are optional.
- Select option 3, **Event Management**. When you select option 3, the DKNSME1-01 screen appears that allows selection of a specific event for subscription.
- Select option 4, **Feature Management**. When you select option 4, the DKNSMF0-01 screen appears that displays the CPCS Feature Table.
- Select option 5, **Site Management**. When you select option 5, the DKNSMS0-01 screen appears that allows you to change all work (WRBs and UOWs) from one processing site to a different processing site.
- Select option 6, **Diagnostic Facility**. When you select option 6, the DKNSMD0-01 screen appears.

  Note: The Diagnostic Facility for use by IBM Service Personnel **only**.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.

DKNSMC1-01–Endprime Screen

The end-prime screen (DKNSMC1-01) provides a line of information for each cycle.

```
DKNSMC1-01                        System Manager              Date : 12/11/1995
                                   - Endprime -               Time : 14:45:24
Cycle:                                                        Id   : CPCSOPER

Opt   Cyc#   Stat    Eprm        Date       Endorse Date

        0     D       D
        1     D       D
        2     D       D
        3     D       D
        4     D       D
        5     A       D        12/11/1995     12/11/1995
        6     D       D
        7     D       D
        8     D       D
        9     D       D
        A     D       D
        B     D       D

Option:  A = Activate Endprime       D = De-activate Endprime


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-45. DKNSMC1-01 Endprime Screen

```
DKNSMC1-01                        System Manager              Date : 12/11/1995
                                   - Endprime -               Time : 14:45:35
Cycle:                                                        Id   : CPCSOPER

Opt   Cyc#   Stat    Eprm        Date       Endorse Date

        0     D       D
        1     D       D
        2     D       D
        3     D       D
        4     D       D
        5     A       P        12/11/1995     12/11/1995
        6     D       D
        7     D       D
        8     D       D
        9     D       D
        A     D       D
        B     D       D

Option:  A = Activate Endprime       D = De-activate Endprime


DKNSMC1 00003  ENDPRIME successfully updated for Cycle 5.
PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-46. DKNSMC1-01 Endprime Screen with Message

This screen shows the following fields:

Cycle The cycle selection field that you can use for direct paging. You can move the cursor to the cycle field and type a cycle code if you want the screen to display data beginning with a certain cycle.

Opt The input field for the option that you select.

Cyc# The cycle code.

Stat The cycle status. The values are:

A Activated
D Deactivated
E Ending

Eprm The end-prime status. The values are:

A Activated
D Deactivated
P Pending

Date The cycle date.

Endorse Date The pending endorse date.

Operator Response: You can select any cycle in the list. If you know the earliest cycle for which status is required, you can type a cycle code in the Cycle field. For example, you might type 5, which causes the screen to refresh with 5 as the first cycle code in the list.

In the **Opt** column next to the cycle that you want to change, type one of the following option codes:

Activate Endprime
This option sets end prime to a pending status for the cycle. This option is valid only when the end-prime status for the cycle is deactivated.

De-activate Endprime
This option sets end prime to a deactivated status for the cycle. This option is valid only when the end-prime status for the cycle is pending or active.

Then do one of the following:

- Press **ENTER** to complete the update.
- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMC2-01–UOW Generation

The UOW generation screen (DKNSMC2-01) allows the operator to tell Enhanced System Manager to start tracking a string that has been recovered through DKNRCVY or other methods. The following screen appears:

```
DKNSMC2-01                        System Manager              Date : 12/11/1995
                                  UOW Generation              Time : 14:44:31
                             - Selection Criteria -           Id   : CPCSOPER




   String Name :  EEEE - P - AA - BB - CC - DD - T - SSS
         Entry :  EEEE
         Cycle :  5
   String Type :  T









PF1=Help  PF2=Menu  PF3=End
```

Figure 4-47. DKNSMC2-01 UOW Generation Selection Screen

This screen shows the following fields:

String Name Generate a UOW for the string name.

Entry The entry that you use to select a string. It must be four digits.

Cycle The cycle number that you use to select a string. It must be 0–9 or A — L.

String Type The type of string that you want to select should be I, D, R or M.

To begin UOW generation, complete the String Name. If you do not know the String Name, type in the Cycle. This brings up a list of strings on the mass data set that currently do not have a UOW. Specifying Entry and String Type limits the list to the specified Entry and String Type.

Note: A UOW is **not** generated if:

- The UOW already exists
- The Tracer Data for the entry is missing from the Tracer data set
- The string is not on the mass data set

DKNSMC3-01–MDS String List Selection Criteria Display

The MDS String List Selection Criteria Display screen provides a line of information for each string on the mass data set that meets the search criteria from DKNSMC2 and does not currently have a UOW.

```
DKNSMC3-01                        System Manager              Date : 12/11/1995
Page :  001                   - MDS String List -             Time : 14:44:40
                           Selection Criteria Display         Id   : CPCSOPER

  Opt    String Name                Cycle    Entry   Sort Pattern   Status

   s     0025-1-00-00-00-00-I-000     5      0025        010



Option:  S = Select


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-48. DKNSMC3-01 MDS String List

This screen shows the following fields:

Opt The input field for the function the user selects

String Name The String name

Cycle The Cycle associated with the String

Entry The Entry number (or Tracer number for subset processing) associated with the String

Sort Pattern The Sort Pattern used to capture the String

Option S **Select**

Entering an S selects a string for UOW generation.

DKNSMC4-01–UOW Generation Workflow Selection

The workflow selection screen (DKNSMC4-01) enables you to select the workflow database level to use during the creation of the UOW.

```
DKNSMC4-01              System Manager UOW Generation        Date : 12/11/1995
                             Workflow Selection              Time : 14:44:48
                                                             Id   : CPCSOPER

                  String Name : 0025-1-00-00-00-00-I-000

                    Option  1  1) PRODUCTION
                               2) DEVELOPMENT

PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-49. DKNSMC4-01 UOW Generation Workflow Selection Screen 1

```
DKNSMC4-01              System Manager UOW Generation        DATE : 12/11/1995
                             Workflow Selection              TIME : 14:44:48
                                                             ID   : CPCSOPER

                  String Name : 0025-1-00-00-00-00-I-000

                    Option  1  1) PRODUCTION
                               2) DEVELOPMENT

DKNSMC4 00015  Press ENTER to generate the UOW, or press PF3 to END.

PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-50. DKNSMC4-01 UOW Generation Workflow Selection Screen with Message

```
DKNSMC4-01              System Manager UOW Generation        DATE : 12/11/1995
                             Workflow Selection              TIME : 14:44:48
                                                             ID   : CPCSOPER

                   String Name : 0025-1-00-00-00-00-I-000


                     Option     1) PRODUCTION
                                2) DEVELOPMENT









DKNSMC4 00005  UOW Generate submitted.

 PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-51. DKNSMC4-01 Workflow Selection Screen with Message

Select one of the following database levels to generate the UOW.

1 **PRODUCTION**

2 **DEVELOPMENT**

Note: The Production and Development database levels are defined in the DKNSMDBL macro. The user can define up to eight database levels. See “Adding a New Workflow Database Level” on page 3-4 for more information.

The database level is displayed for each logical workflow level defined in the Enhanced System Manager Workflow Database Module (DKNSMDB).

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward.
- Press **PF8** to scroll forward.

DKNSME1-01–Event List Selection Menu

The event list selection screen (DKNSME1-01) enables you to select the event for subscription to one of the Enhanced System Manager internal modules.

```
DKNSME1-01                        System Manager              Date : 12/11/1995
Page :  004                       - Event List -              Time : 13:46:15
                                                              Id   : CPCSOPER

Opt  Event       Description                            Subscriptions

     TLRFREE     Task List Record Free                        0
     SPATTERR    Service Processor Attach Error               1
     EXUOWRED    Ext UOW READ Request                         0
     CSRBERR     External Service Request Error               1
     STRINGCL    Mass Data Set String Close                   0
 s   TASKTERM    Task Termination                             0
     ENDCYCLE    CPCS End Cycle                               1
     EXDSMREQ    Ext. Dataspace Manager Request               0
     EXWRBUPD    External WRB Update Request                  0
     EXGETLST    External Get List Request                    0
     EXFRELST    External Free List Request                   0
     X03READ     User Exit #3 MDS Read                        0

Option:  S = Select


PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-52. DKNSME1-01 Event List Selection Menu

This screen shows the following fields:

Opt The input field for the function the user selects

Event The event name

Description The description of the event.

Subscriptions The total number of subscriptions for the event across all Enhanced System Manager modules

Option S **Select**

Entering an S selects an event for subscription

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSME2-01–Service Processor Selection Menu

The service processor list selection screen (DKNSME2-01) enables you to select the service processor that you wish to subscribe to the event selected on the previous menu.

```
DKNSME2-01                          System Manager              Date : 12/11/1995
Page :  001                  - Service Processor List -         Time : 13:46:38
                                 Event = TASKTERM               Id   : CPCSOPER

Opt Spname    Epname    Description

    LOGMGR    DKNSMLOG  Log Manager
    UOWDATA   DKNAIT01  Unit of Work Hiperspace Manager
    TLRDATA   DKNAIT01  Task List Record Hiperspace Mgr
    WRBDATA   DKNAIT01  Work Request Blk Hiperspace Mgr
    STRNGINT  DKNSMTQM  Task Queue Manager
    PRIMEINT  DKNAIT02  Entry Initialization Manager
    TASKSTRT  DKNAIT25  Task Start/Stop Manager
    UOWINDEX  DKNSMIDX  Unit of Work Index Manager
    WRBINDEX  DKNSMWDX  Work Request Blk Index Manager
    TLRINDEX  DKNSMTDX  UOW/WRB Relationship Manager
    PASSCUOW  DKNSMCUP  Pass Control UOW Manager
    TASKCUOW  DKNSMCUT  Task Event CUOW Manager

Option:  S = Subscribe   U = Unsubscribe


DKNSME2 00004  This is the first page of data to display.
PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-53. DKNSME2-01 Service Processor List Selection Screen

This screen shows the following fields:

Opt The input field for the function the user selects

Spname The service processor's alias name

Epname The service processor's module name

Description The description of the service processor

Option S **Subscribe**

Entering an S subscribes the service processor to the event selected on the previous menu.

Option U **Unsubscribe**

Entering a U removes the service processor subscription to the event selected on the previous menu.

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMF0-01–CPCS Feature List Menu

The CPCS feature list screen (DKNSMF0-01) enables you activate or deactivate any feature listed in the CPCS feature table.

```
DKNSMF0-01                        System Manager              Date : 12/11/1995
Page :  001                  - CPCS Feature List -            Time : 13:45:33
                                                              Id   : CPCSOPER

Opt  Feature     Description                        Status

     CPCSPRAD    Propagation of Adjustments         ACTIVE









Option:  A = Activate  D = Deactivate


DKNSMF0 00004  This is the first page of data to display.
PF1=Help  PF2=Menu  PF3=End  PF7=Backward  PF8=Forward
```

Figure 4-54. DKNSMF0-01 CPCS Feature List Screen

This screen shows the following fields:

Opt The input field for the function the user selects

Feature The name of the feature

Description The description of the feature

Status The current status of the feature

Option A **Activate**

Entering an A flags the feature as ‘ACTIVE’ in the CPCS feature table.

Option D **Deactivate**

Entering a D flags the feature as ‘DEACTIVATED’ in the CPCS feature table.

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF7** to scroll backward through the list.
- Press **PF8** to scroll forward through the list.

DKNSMS0-01–Site Management Main Menu

The site management screen (DKNSMS0-01) enables you to move all WRBs and UOWs from one processing site to another processing site.

```
DKNSMS0-01                        System Manager              Date : 12/11/1995
                           - Site Management Facility -       Time : 14:39:40
                                                              Id   : CPCSOPER




            Current Processing Site : charlott

            New Processing Site     : columbia









PF1=Help  PF2=Menu  PF3=End  PF4=Process
```

Figure 4-55. DKNSMS0-01 Site Management Screen

This screen shows the following fields:

Current Processing Site
The field that specifies the current processing site of the WRBs and UOWs that are to be changed.

New Processing Site
The field that specifies the new processing site to assign to all WRBs and UOWs that were assigned the specified ‘Current Processing Site’ identifier.

- Press **PF1** to get help.
- Press **PF2** to return to the main menu.
- Press **PF3** to return to the previous screen.
- Press **PF4** to perform the processing site change.

Chapter 5. Enhanced System Manager Programming and Diagnostic Information

Overview

General-Use Programming Interface

This chapter describes the application programming interface module for Enhanced System Manager (DKNSMAPI) and the supported Enhanced System Manager service requests. This chapter also describes return codes and their meanings for the Enhanced System Manager service requests.

End of General-Use Programming Interface

Enhanced System Manager Application Program Interfaces (APIs)

The Enhanced System Manager application program interfaces consist of:

- The callable service module DKNSMAPI
- The Enhanced System Manager callable services vector, DKNSMCSV (assembler)
- The standard DKNSMAPI call service request block, DKNCSRBA (assembler) or DKNSMCRB (COBOL)
- The Work-Request-Block data record DKNWRB (assembler), DKNCWRB (COBOL)
- The unit-of-work data record DKNUOWDR (assembler), DKNCUWDR (COBOL)
- The unit-of-work data space control block DKNSDSCA (assembler)
- The unit-of-work data space header record DKNSDSHA (assembler), DKNSDSHB (C-language)
- The unit-of-work data space item record DKNSDSIA (assembler), DKNSDSIB (C-language)

Enhanced System Manager service requests support the retrieval of application-required information from the system. The application program interfaces are normally required for programs that Enhanced System Manager does not start automatically. For automatically started applications, an application work-request block supplies the required information to the application at startup. Service calls might not be necessary.

DKNSMAPI–Application Program Interface Module

The DKNSMAPI module lets an assembler (and high-level languages that use IBM standard linkage and reside in the CPCS address space) request information from and send information to Enhanced System Manager. The DKNSMAPI module is called from the application task that requires Enhanced System Manager services. Its primary function is to interpret and validate the parameters passed to it, and to build and route an appropriate SMSRB (service request block).

The calling program passes a set of parameters to DKNSMAPI through the callable service request block that is mapped by the DKNSMCRB copybook (COBOL) or the DKNCSRBA DSECT (assembler) macro. The program receives service-request information and, optionally, data.

Enhanced System Manager API Service Requests

The calling applications pass service requests in the form of Object and Action pairs as part of the Callable Service Request Block (CSRB). All requests require the following fields within the CSRB and may require additional fields and structures to be completed depending on the specific request. Refer to each specific request's section for additional information.

Figure 5-1. Additional Information for Enhanced System Manager API Service Requests. It is important to clear all applicable control blocks with binary zeroes before filling in specific fields.

Types of Service Requests	For additional information, refer to:
Callable Service Request Block (CSRB)	"Callable Service-Request Block" on page A-2
Work Request Block (WRB)	"Work-Request Block (WRB)" on page A-3
Unit of Work (UOW)	"Unit-of-Work (UOW) Data Record" on page A-6
Unit of Work Data Space Control Block (DSCB)	"Unit-of-Work Data Space (UOWDS) Control Block (DSCB)" on page A-8
Application Work Request Block (APPLWRB)	"Application Work Request Block (APPLWRB)" on page A-15
Unit of Work List Data Record	"Application Unit-of-Work List (APPLUOWL) Data Structure" on page A-16
Unit of Work Data Space (UOWDS) layout	"Unit-of-Work Data Space (UOWDS) Layout and Create Details" on page A-14

Figure 5-2. Passed Fields for all Requests

Data Structure	Field	Description/Contents
Register #1	SMCSRBA	The address of the Callers SRB with the following fields filled in, (This is the DKNSMAPI parameter list).
DKNCSRBA/ DKNSMCRB	CSRBEYE	Structure ID (constant DKNCSRBA)
	CSRBOBJ	Object Token - Refer to each specific request's section for the content.
	CSRBACT	Action to perform against the object - Refer to each specific request's section for the content.
	CSRBAPTB	The address of calling applications CPCS APTCB.
	CSRBOCOP	The address of the Enhanced System Manager Object Code Only (OCO) Parameter List (DKNPARM field OCOPRMLA).

Figure 5-3. Returned Fields for all Requests

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code
	CSRBRESC	Request Reason Code

All requests can result in the following return / reason codes for DKNSMAPI failures that indicate a non-service request specific error.

Figure 5-4 describes the return and reason codes that DKNSMAPI generates.

Figure 5-4. DKNSMAPI Return Codes

Return Code	Reason Code	Description
0	0	Successful Request
12	Refer to specific API for reasons listed with return code of 8.	An abnormal end for an internal module that recovered.
28	4	The required Enhanced System Manager service module was not found.
	8	The specified object and action pair is not supported.
	12	Unable to acquire sufficient storage.
	16	All required parameters were not specified.
	20	Enhanced System Manager was unable to allocate an asynchronous request buffer.
	24	Enhanced System Manager was unable to allocate an asynchronous SMSRB.
	28	An abnormal end for an internal module

Object/Action Pairs and Service Request Parameter List Fields

This section describes the service requests and identifies the additional fields that the Enhanced System Manager is passed or returns, based on the Object/Action pair fields.

Each action requires the information previously specified and, in addition, the structures and fields indicated in the specific service request section. See the following tables for a listing of the fields and the contents required for each Enhanced System Manager action.

Application Work Request Block (APPLWRB) - ACTIVATE Service Request

Requests Enhanced System Manager to activate the APPLWRB pointed to in the CSRB passed from the user. The APPLWRB is not returned to the calling program.

Figure 5-5. APPLWRB ACTIVATE Service Request Passed Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLWRB"
	ACTIVATE	The requested action is "ACTIVATE"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requestor with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requestor.
DKNWRB/ DKNCWRB	WRBTASK1	The eight-character task name to be used in the search.
	WRBSTAT	Filter for the task's status; typically ready (R).
	WRBSOP01	Filter for WRB priority of a certain range; typically less than/equal (LE) as non-active WRB's are less than/equal to priority 9 (active indicated by X'FF').
	WRBPRTY	Filter for WRB of a certain range; typically 9
	WRBOSITE	Filter for WRB of a certain owning site; optional parameter.
	WRBPSITE	Filter for WRB of a certain processing site; optional parameter.

Figure 5-6. APPLWRB ACTIVATE Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-7.
	CSRBRESC	Request Reason Code in Figure 5-7.

Figure 5-7. APPLWRB ACTIVATE Service Request Return Codes

Return Code	Reason	Description
0	00	Successful request
x		An internal error occurred.

Application Work Request Block (APPLWRB) - CANCEL Service Request

Requests Enhanced System Manager complete (C) a ready (R) but not active work-request block for the user specified unit-of-work, task, and return code.

Figure 5-8 (Page 1 of 2). APPLWRB CANCEL Service Request Specific Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLWRB"
	CSRBACT	The requested action is "CANCEL"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the following fields completed.

Figure 5-8 (Page 2 of 2). APPLWRB CANCEL Service Request Specific Fields

Data Structure	Field	Description/Contents
	CSRBWRBL	The length of the WRB data record from the requester.
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
	CSRBUCC	Four bytes for the return codes to use in termination, for example, X'00000108' as a user completion code.
DKNWRB/ DKNCWRB	WRBTASK1	Eight bytes for the name of the task to use in the search
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically deleted (D)
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID

Figure 5-9. APPLWRB CANCEL Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-10.
	CSRBRESC	Request Reason Code in Figure 5-10.

Figure 5-10. APPLWRB CANCEL Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
8	0	No (R)eady task was found for the specified task name and the specified Unit of Work (UOW)

Application Work Request Block (APPLWRB) - GETNEXT Service Request

Requests Enhanced System Manager build an Application Work Request Block for the first ready (R) but not active task, and mark the task active.

Figure 5-11 (Page 1 of 2). APPLWRB GETNEXT Service Request Passed Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLWRB"
	CSRBACT	The requested action is "GETNEXT"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requestor with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requestor.
DKNWRB/ DKNCWRB	WRBTASK1	The eight character task name to be used in the search.
	WRBSTAT	Filter for the task's status; typically ready (R).
	WRBSOP01	Filter for WRB priority of a certain range; typically less than/equal (LE) as non-active WRBs are less than/equal to priority 9 (active indicated by X'FF').

Figure 5-11 (Page 2 of 2). APPLWRB GETNEXT Service Request Passed Fields

Data Structure	Field	Description/Contents
	WRBPRTY	Filter for WRB of a certain range; typically 9
	WRBOSITE	Filter for WRB of a certain owning site; optional parameter.
	WRBPSITE	Filter for WRB of a certain processing site; optional parameter.

Figure 5-12. APPLWRB GETNEXT Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-13.
	CSRBRESC	Request Reason Code in Figure 5-13.
	CSRBAPWA	The address of a completed Application Work Request Block (APPLWRB) data structure.
	CSRBAPWL	The length of a completed Application Work Request Block (APPLWRB) data structure.
APPLWRB	All Fields	The WRB that matched the input search criteria and the addresses of the Unit(s) of Work that are associated with it.

Figure 5-13. APPLWRB GETNEXT Service Request Return Codes

Return Code	Reason	Description
4	0	No work is currently (R)eady for the specified task name.
8	0	Request failed for Object/Action indicated in CSRB.

Application Work Request Block (APPLWRB) - GETNEXTA Service Request

Request Enhanced System Manager build an Application Work Request Block for the first occurrence of the task, and mark the task active. If the task is found in the Complete Queue, it is then moved to the ready queue, and the rerun or reset switch is set.

Figure 5-14 (Page 1 of 2). APPLWRB GETNEXTA Service Request Passed Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLWRB"
	CSRBACT	The requested action is "GETNEXTA"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requestor with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requestor.
DKNWRB/ DKNCWRB	WRBTASK1	The eight character task name to be used in the search.
	WRBSTAT	Filter for the task's status; typically ready (R).
	WRBSOP01	Filter for WRB priority of a certain range; typically less than/equal (LE) as non-active WRBs are less than/equal to priority 9 (active indicated by X'FF').
	WRBPRTY	Filter for WRB of a certain range; typically 9

Figure 5-14 (Page 2 of 2). APPLWRB GETNEXTA Service Request Passed Fields

Data Structure	Field	Description/Contents
	WRBOSITE	Filter for WRB of a certain owning site; optional parameter.
	WRBPSITE	Filter for WRB of a certain processing site; optional parameter.

Figure 5-15. APPLWRB GETNEXTA Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-16.
	CSRBRESC	Request Reason Code in Figure 5-16.
	CSRBAPWA	The address of a completed Application Work Request Block (APPLWRB) data structure.
	CSRBAPWL	The length of a completed Application Work Request Block (APPLWRB) data structure.
APPLWRB	All Fields	The WRB that matched the input search criteria and the addresses of the Unit(s) of Work that are associated with it.

Figure 5-16. APPLWRB GETNEXTA Service Request Return Codes

Return Code	Reason	Description
0	00	Successful request
4	*xx*	GETNEXT failed: *xx*=**04** No work is currently (R)eady for the specified task name. *xx*=**08** Request failed for Object/Action indicated in CSRB.
8	00	ACTIVATE failed.

Application Work Request Block (APPLWRB) - GETSPECF Service Request

Requests Enhanced System Manager build an Application Work Request Block for the:

ready (R) but not active task, or the

complete (C) task with a non-zero return code

that is associated with the UOW provided in the CSRB, and mark the WRB active.

Figure 5-17. APPLWRB GETSPECF Service Request Passed Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBUOWA	The address of a cleared UOW record, with the string name filled in for the UOW for which the APPLWRB is required.
	CSRBUOWL	The length of the UOW record from the requestor.

Figure 5-18 (Page 1 of 2). APPLWRB GETSPECF Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-19 on page 5-10.
	CSRBRESC	Request Reason Code in Figure 5-19 on page 5-10.

Figure 5-18 (Page 2 of 2). APPLWRB GETSPECF Service Request Returned Fields

Data Structure	Field	Description/Contents
	CSRBAPWA	The address of a completed Application Work Request Block (APPLWRB) data structure.
	CSRBAPWL	The length of a completed Application Work Request Block (APPLWRB) data structure.
APPLWRB	All Fields	The WRB that matched the input search criteria and the addresses of the Unit(s) of Work that are associated with it.

Figure 5-19. APPLWRB GETSPECF Service Request Return Codes

Return Code	Reason	Description
0	00	Successful request
4	00	No matching UOW was found.
8	00	No matching “active” WRB was found.
12	*xx*	Internal processing error (reason code was internal return code).
16	00	No APTCB was provided in the CSRB.
20	00	The name in the CSRB does not match the name in the provided APTCB.

Application Work Request Block (APPLWRB) - TERMINAT Service Request

Requests Enhanced System Manager complete an active work-request block for the user specified unit-of-work, task, and return code.

Figure 5-20. APPLWRB TERMINAT Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is “`APPLWRB`”
	CSRBACT	The requested action is “`TERMINAT`”
	CSRBWRBA	The address of a cleared (`X'00'`) WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
	CSRBUOWA	The address of a cleared (`X'00'`) UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
	CSRBUCC	Four bytes for the return codes to use in termination, for example, `X'00000107'` as a user completion code.
DKNWRB/ DKNCWRB	WRBTASK1	Application Task Name filter to use in the search
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15-byte UOW-ID and/or the 24-byte String-ID

Figure 5-21. APPLWRB TERMINAT Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-22 on page 5-11.
	CSRBRESC	Request Reason Code in Figure 5-22 on page 5-11.

Figure 5-22. APPLWRB TERMINAT Specific Service Request Return Codes

Return Code	Reason	Description
4	0	Unit of Work (UOW) was not found
8	0	No active task was found for the specified task name and the specified Unit of Work (UOW)

Work Request Block (WRB) - UPDATE Service Request

Requests Enhanced System Manager update a work request block based on the search parameters specified by the user.

Figure 5-23. WRB UPDATE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "`WRB`"
	CSRBACT	The requested action is "`UPDATE`"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
DKNWRB/ DKNCWRB	WRBSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R)
	WRBTSTMP	The 8 byte WRB Timestamp
	<Variable>	The WRB fields to update (Supported ONLY) • WRBSUBTA • WRBPRTY (may be 0 - 9)

Figure 5-24. WRB UPDATE Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-25.
	CSRBRESC	Request Reason Code in Figure 5-25.
	CSRBWRBA	The address of a updated WRB record.
	CSRBWRBL	The length of the WRB record.
	WRB	The WRB that matched the input search criteria.

Figure 5-25. WRB UPDATE Service Request Return Codes

Return Code	Reason Code	Description
4	0	Work Request Block (WRB) was not found

Application Unit-of-Work List (APPLUOWL) - GETLIST Service Request

Requests Enhanced System Manager provide a list of UOWs based on the search parameters specified by the user.

Figure 5-26. APPLUOWL GETLIST Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLUOWL"
	CSRBACT	The requested action is "GETLIST"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
DKNWRB/ DKNCWRB	WRBSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R)
	WRBSOP01	Filter for WRB priority of a certain range; typically less than/equal (LE) as non-active WRBs are less than/equal to priority 9 (active indicated by x'FF').
	WRBPRTY	Filter for WRB of a certain range; typically 9
	WRBOSITE	Filter for WRB of a certain owning site; optional parameter.
	WRBPSITE	Filter for WRB of a certain processing site; optional parameter.
	WRBSUBTA	Filter for which Enhanced System Manager queue subset is to search (this particular field is optional and may be used by applications to group work by subtask).
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R)

Figure 5-27. APPLUOWL GETLIST Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-28.
	CSRBRESC	Request Reason Code in Figure 5-28.
	CSRBLSTA	The address of a completed APPLUOW List data structure
	CSRBLSTL	The length of the APPLUOW List data structure.
APPLUOW List	All Fields	The Application UOW List that matched the input search criteria.

Figure 5-28 (Page 1 of 2). APPLUOWL GETLIST Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	No matching work request blocks were found.
8	0	No units of work were found.
12	0	Invalid WRB address
16	0	Invalid WRB length

Figure 5-28 (Page 2 of 2). APPLUOWL GETLIST Specific Service Request Return Codes

Return Code	Reason Code	Description
20	0	Internal WRB READ error
24	0	STORAGE OBTAIN failure

Application Unit-of-Work List (APPLUOWL) - FREELIST Service Request

Requests Enhanced System Manager free the list of UOWs previously provided.

Figure 5-29. APPLUOWL FREELIST Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "APPLUOWL"
	CSRBACT	The requested action is "FREELIST"
	CSRBLSTA	The address of the APPLUOW List record to be freed.
	CSRBLSTL	The length of the APPLUOW List record to be freed.

Figure 5-30. APPLUOWL FREELIST Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-31.
	CSRBRESC	Request Reason Code in Figure 5-31.

Figure 5-31. APPLUOWL FREELIST Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Invalid APPLUOW list address specified
8	0	Invalid APPLUOW list length specified
12	0	STORAGE RELEASE failure

Unit-of-Work (UOW) - READ Service Request

Requests Enhanced System Manager provide a unit-of-work record based on the search parameters specified by the user.

Figure 5-32. UOW READ Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOW"
	CSRBACT	The requested action is "READ"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R)
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID

Figure 5-33. UOW READ Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-34 on page 5-14.
	CSRBRESC	Request Reason Code in Figure 5-34 on page 5-14.
	CSRBUOWA	The address of a completed UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria.

Figure 5-34. UOW READ Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
8	2	Unit of Work (UOW) internal READ error

Unit-of-Work (UOW) - GENERATE Service Request

Requests Enhanced System Manager create a unit-of-work for the user specified string.

Figure 5-35. UOW GENERATE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOW"
	CSRBACT	The requested action is "GENERATE"
	CSRBREQA	The address of the extended list that contains the following: • String name in UOWSTR format. UOWSTR is in DKNUOWDR. • LVLABBR is a two character workflow database level abbreviation. The LVLABBR you specify should correspond to the workflow database you want to use to generate the UOW. • LVLABBR is a two character task profile database level abbreviation. The LVLABBR you specify should correspond to the task profile database that you want to use to generate the UOW.
	CSRBREQL	The length of the above data record from the requester.

Figure 5-36. UOW GENERATE Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-37.
	CSRBRESC	Request Reason Code in Figure 5-37.

Figure 5-37 (Page 1 of 2). UOW GENERATE Service Request Return Codes

Return Code	Reason Code	Description
0	0	UOW is successfully
12	0	Tracer/Entry does not exist
16	0	UOW already exists for the string specified
24	0	Workflows do not exist for specified sort pattern

Figure 5-37 (Page 2 of 2). UOW GENERATE Service Request Return Codes

Return Code	Reason Code	Description
32	255	DKNSMDUG: MDS init failed - invalid parameters
36	6	DKNSMDUG: MDS read/write failed - SDI record does not exist
	8	DKNSMDUG: MDS read/write failed - I/O error
40	94	DKNSMDUG: MDS end failed - MDCTL ended abnormally
44	255	DKNSMMDS: MDS init failed - parameters invalid
48	1	DKNSMMDS: MDS open string failed - too many strings open
	2	DKNSMMDS: MDS open string failed - output string already exists
	3	DKNSMMDS: MDS open string failed - input string does not exist
	7	DKNSMMDS: MDS open string failed - input string already open
	8	DKNSMMDS: MDS open string failed - I/O error
	255	DKNSMMDS: MDS open string failed - parameters invalid
52	1	DKNSMMDS: MDS close string failed - not enough index records
	4	DKNSMMDS: MDS close string failed - string not open can't close
	8	DKNSMMDS: MDS close string failed - I/O error
	255	DKNSMMDS: MDS close string failed - parameters invalid
56	94	DKNSMMDS: MDS end string failed - MDCTL ended abnormally
64	0	Bad return code from DKNGNINT
68	0	Unable to open workflow database

Mass Dataset XREC (USERXREC) - READ Service Request

Requests Enhanced System Manager return the XREC for the type of CPCS Mass Dataset string record format requested.

1. Provides the XREC requested

Figure 5-38. USERXREC READ Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is `USERXREC`
	CSRBACT	The requested action is `READ`
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
	CSRBRTNA	The address of the data area to place the User XREC.
	CSRBRTNL	The length of the data area to place the User XREC.
DKNUOWDR/ DKNCUWDR	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHXRECTP	The type of User XREC, and in turn string format, that the application is returning in the data space. For the XREC of the MDS use 00, for the User XREC (based on codeline exit) use 01.

Figure 5-39. USERXREC READ Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-40 on page 5-16.
	CSRBRESC	Request Reason Code in Figure 5-40 on page 5-16.
MDS USERXREC	All Fields	The XREC for the format requested. This data is placed in the area allocated by the requester and pointed to with the field CSRBRTNA.

Figure 5-40. USERXREC READ Service Request Return Codes

Return Code	Reason	Description
8	4	Request failed for input data problems.

Data Space (DTASPACE) - GETSIZE Service Request

Requests Enhanced System Manager return the size of a data space needed to hold a specific string.

1. Invokes the UOW - READ API.
2. Determines the string item count
3. Invokes the USERXREC READ API. to obtain the size of the string record for this UOW requested in this format.
4. Calculates the number of blocks needed in the data space to contain the DKNSDSHB, 1 per item count - DKNSDSIB (including the size of string record for this USERXREC), and JHINSPCT.

Figure 5-41. DTASPACE GETSIZE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "DTASPACE"
	CSRBACT	The requested action is "GETSIZE"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHINSPCT	The percentage (0-999), in hexadecimal, of data space to allocate for application item insertions into the string.
	JHXRECTP	The type of XREC, and in turn string format, that the application desires to be placed into the data space.

Figure 5-42. DTASPACE GETSIZE Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-43 on page 5-17.
	CSRBRESC	Request Reason Code in Figure 5-43 on page 5-17.
	CSRBUOWA	The address of a completed UOW data record.
	CSRBUOWL	The length of the completed UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria with the address of the requester's DSCB associated with it.
DKNSDSCB	Previous fields plus	The DSCB of the above UOW with the following information. **Note:** No real DSCB exists for the UOW at this time.
	JHQSPAN	The number of 4K blocks to be used in creating the data space.

Figure 5-43. DTASPACE GETSIZE Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	8	Request failed due to deleted string detect.
8	0	Request failed for UOW Read problem.
8	4	Request failed for input data problem.

Data Space (DTASPACE) - CREATE Service Request

Requests Enhanced System Manager create a data space for the size specified and provide addressability to the data space. This applies to a specific unit-of-work.

1. Invokes the UOW - READ API.
2. Builds the DSCB
3. Performs a data space create function.
4. Performs an addressability function.
5. Updates the UOW with the DSCB address and the DSCB information in the Enhanced System Manager track area.

Figure 5-44 (Page 1 of 2). DTASPACE CREATE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is 'DTASPACE'
	CSRBACT	The requested action is 'CREATE'
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which the Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15-byte UOW-ID and/or the 24-byte String-ID **Note:** This string is the ID of the item that is to be placed or was originally placed into this data space.

Figure 5-44 (Page 2 of 2). DTASPACE CREATE Service Request Specific Fields

Data Structure	Fields	Description/Contents
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the following fields completed.
DKNSDSCB	JHQSPAN	The number of 4K blocks to be used in creating the data space. This would have been maintained by the application from the data space that previously contained the string in question or from the fastpath function.

Figure 5-45. DTASPACE CREATE Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-46.
	CSRBRESC	Request Reason Code in Figure 5-46.
	CSRBUOWA	The address of a completed UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria with the address of the DSCB associated with it.
DKNSDSCB	All Fields	The DSCB of the above UOW with UOWDS access information.
Data space	N/A	The data space with addressability but not complete with data.

Figure 5-46. DTASPACE CREATE Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	4	Request failed due to UOWDS already active.
8	0	Request failed for UOW Read problem.
8	4	Request failed for input data problem.
8	8	Request failed for STORAGE macro problem.
8	20	Request failed for DSPSERV or ALESERV macro problem.
8	28	Request failed for UOW Update problem.
8	32	Request failed for LISTUOW problem.

Data Space (DTASPACE) - DELETE Service Request

Requests Enhanced System Manager delete a data space for the UOW specified.

1. Invokes the UOW - READ API. to obtain the data space information stored there (this is one Enhanced System Manager created)
2. Performs a data space delete function.
3. Updates the UOW to remove the DSCB address and eliminates the DSCB.

Figure 5-47 (Page 1 of 2). DTASPACE DELETE Service Request Specific Fields

Data Structures	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "DTASPACE"
	CSRBACT	The requested action is "DELETE"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.

Figure 5-47 (Page 2 of 2). DTASPACE DELETE Service Request Specific Fields

Data Structures	Fields	Description/Contents
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID

Figure 5-48. DTASPACE DELETE Service Request Returned Fields

Data Structures	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-49.
	CSRBRESC	Request Reason Code in Figure 5-49.
	CSRBUOWA	The address of the updated UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria.

Figure 5-49. DTASPACE DELETE Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	4	No active UOWDS for this UOW
4	8	Request failed for STORAGE macro problem.
4	20	Request failed for DSPSERV or ALESERV macro problem.
4	36	Request failed for DSCB data problem after output string created.
8	0	Request failed for UOW Read problem.
8	4	Request failed for input data problem.
8	28	Request failed for UOW Update problem.
8	32	Request failed for LISTUOW problem.

Data Space (DTASPACE) - EXTEND Service Request

Requests Enhanced System Manager extend the size of a data space for a specific unit-of-work.

1. Invokes the UOW - READ API.
2. Performs a data space extend function.
3. Updates the UOW with the DSCB address and the DSCB information in the Enhanced System Manager track area.

Figure 5-50 (Page 1 of 2). DTASPACE EXTEND Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "DTASPACE"
	CSRBACT	The requested action is "EXTEND"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.

Figure 5-50 (Page 2 of 2). DTASPACE EXTEND Service Request Specific Fields

Data Structure	Fields	Description/Contents
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHQSPAN	The number of 4K blocks to extend the current data space by.

Figure 5-51. DTASPACE EXTEND Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-52.
	CSRBRESC	Request Reason Code in Figure 5-52.
	CSRBUOWA	The address of a completed UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria with the address of the DSCB associated with it.
DKNSDSCB	All Fields	The DSCB of the above UOW with the following information updated.
	JHQSPAN	The new number of blocks the data space has been updated to contain.
Data space	N/A	The Data Space complete with the previous data as described in “Unit-of-Work Data Space (UOWDS) Layout and Create Details” on page A-14 plus extended to the size indicated in JHQSPAN and updated fields in the UOWDS Header (JBSPAN & JBLAPDAN).

Figure 5-52. DTASPACE EXTEND Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	4	Request failed due to UOWDS already active.
8	0	Request failed for UOW Read problem.
8	4	Request failed for input data problem.

Data Space (DTASPACE) - LOAD Service Request

Requests Enhanced System Manager load the data space with the specified string.

1. Creates the UOWDS Header (DKNSDSHA). DKNSDSHB is the ‘C’ version of the UOWDS Header.
2. Performs a data space string load function, calling the codeline exit and a Bank Exit if present. Refer to Figure A-8 on page A-12 for details on the user exits.

Figure 5-53 (Page 1 of 2). DTASPACE LOAD Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "DTASPACE"
	CSRBACT	The requested action is "LOAD"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.

Figure 5-53 (Page 2 of 2). DTASPACE LOAD Service Request Specific Fields

Data Structure	Fields	Description/Contents
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTR and optionally UOWID	The 24 byte String-ID and optionally the 15 byte UOW ID.
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCA	JHUALET	The data space access list entry token.
	JHQOFSET	The origin for the data space.
	JHQSPAN	The current number of blocks that the data space contains.
	JHINSPCT	The percentage (0-999), in hexadecimal, of data space to allocate for application item insertions into the string.
	JHXRECTP	The type of User XREC, and in turn string format, that the application desires to be placed into the data space.

Figure 5-54. DTASPACE LOAD Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-55.
	CSRBRESC	Request Reason Code in Figure 5-55.
	CSRBUOWA	The address of the requesters UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	Input fields unchanged	The requesters UOW record used in the search and the address of the DSCB associated with it.
DKNSDSCB	All Fields	The DSCB of the above UOW with UOWDS access information.
Data space	N/A	The Data Space with addressability and complete with data as described in “Unit-of-Work Data Space (UOWDS) Layout and Create Details” on page A-14.

Figure 5-55. DTASPACE LOAD Specific Service Request Return Codes

Return Code	Reason	Description
8	4	Request failed for input data problem.
8	8	Request failed for STORAGE macro problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.
8	24	Request failed for UOW data space data problem (typically end of chain delimiter, pointers or record count).

Data Space (DTASPACE) - UNLOAD Service Request

Requests Enhanced System Manager unload a data space for a specific string (creating a new string as named in the ZEDSCT).

1. Performs a data space string unload function, calling the codeline exit and a Bank Exit if present. Refer to Figure A-8 on page A-12 for details on the user exits.

Figure 5-56. DTASPACE UNLOAD Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "DTASPACE"
	CSRBACT	The requested action is "UNLOAD"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHUALET	The data space access list entry token.
	JHQOFSET	The origin for the data space.
	JHQSPAN	The current number of blocks that the data space contains.
	JHXRECTP	The type of user XREC, and in turn string format, that the application is returning in the data space.
	JHMDSFMD	The state that the application wants an uncompleted string to be left in, 00 -partial string in CLS state with count of last record processed, 01 - D or M string purged with others left in RST mode but no count.
ZEDSCT	<Variable>	Appropriate updates made to the ZEDSCT structure are included in the data space but are not limited to the name to be used for the new string in the field ZESTGNAM.
DKNSDSHB	<Variable>	Appropriate updates made to the data space header record in the data space. These updates include but are not limited to JBDATPTR, JBQUWLCM, and JURNEXT.

Figure 5-57. DTASPACE UNLOAD Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-58.
	CSRBRESC	Request Reason Code in Figure 5-58.

Figure 5-58 (Page 1 of 2). DTASPACE UNLOAD Specific Service Request Return Codes

Return Code	Reason Code	Description
8	4	Request failed for input data problem.
8	8	Request failed for STORAGE macro problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.
8	24	Request failed for UOW data space data problem (typically end of chain delimiter, pointers or record count).

Input String Directory Entry (INPUTSDE) - UPDATE Service Request

Requests Enhanced System Manager update a string directory entry for the string specified using the data provided. The request first checks for a buffer (CSRBREQA) that should contain the string directory record. If however this API is invoked from the UOWDS COMPLETE API, then it will allow that the string dirctory record contained in the UOWDS to be used. Allows updates to the following fields only. Preservation of all data within these fields, that is not to be changes is the responsibility of the application making the request.

1. ZEFLAGS - 61 bytes
2. ZEUNENCD - 36 bytes
3. ZEAMTENT - 36 bytes
4. ZEREPAIR - 36 bytes

Figure 5-59. INPUTSDE UPDATE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is 'INPUTSDE'
	CSRBACT	The requested action is 'UPDATE'
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
	CSRBREQA	The address of the buffer that contains the string directory record. Required if this API is invoked directly and not through the UOWDS COMPLETE API, in which case it is optional.
	CSRBREQL	The length of the data in the buffer from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTR	The 24 byte String-ID.
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed. Required only when invoked from the UOWDS COMPLETE API without also providing the data in the CSRBREQA buffer.
DKNSDSCB	JHUALET	The data space access list entry token.
	JHQOFSET	The origin for the data space.

Figure 5-60. INPUTSDE UPDATE Service Request Returned Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-61 on page 5-24.
	CSRBRESC	Request Reason Code in Figure 5-61 on page 5-24.

Figure 5-61. INPUTSDE UPDATE Service Request Return Codes

Return Code	Reason Code	Description
8	4	Request failed for input data problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.

Unit-of-Work Data Space (UOWDS) - GETNEXT Service Request

Requests Enhanced System Manager create a unit-of-work data space for the first ready but not active string that matches the search criteria. This is a fastpath sequencing function and performs the following.

1. Invokes the APPLWRB - GETNEXT API.
2. Locates the first UOW for the returned WRB.
3. Handles deleted strings as follows
   a. Cancels the current APPLWRB with an APPLWRB - CANCEL API invocation.
   b. Reinvokes the APPLWRB - GETNEXT API.
4. Invokes the DTASPACE - GETSIZE API.
5. Invokes the DTASPACE - CREATE API.
6. Invokes the DTASPACE - LOAD API.
7. Updates the UOW with the DSCB address and the DSCB information in the Enhanced System Manager track area.

Figure 5-62 (Page 1 of 2). UOWDS GETNEXT Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOWDS"
	CSRBACT	The requested action is "GETNEXT"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNWRB/ DKNCWRB	WRBTASK1	Eight bytes for the name of the task to use in the search
	WRBSTAT	Filter for Enhanced System Manager queue; typically ready (R).
	WRBSOP01	Filter for WRB of a certain range; typically less than/equal (LE) as non-active WRBs are less than/equal to priority 9 (active indicated by FF).
	WRBPRTY	Filter for WRB of a certain range; typically 9
	WRBOSITE	Filter for WRB of a certain owning site; optional parameter.
	WRBPSITE	Filter for WRB of a certain processing site; optional parameter.
DKNUOWDR/ DKNCUWDR	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHINSPCT	The percentage (0-999), in hexadecimal, of data space to allocate for application item insertions into the string.
	JHXRECTP	The type of user XREC, and in turn string format, that the application desires to be placed into the data space.

Figure 5-63. UOWDS GETNEXT Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-64 on page 5-25.
	CSRBRESC	Request Reason Code in Figure 5-64 on page 5-25.
	CSRBAPWA	The address of a completed APPLWRB data record.
	CSRBAPWL	The length of the APPLWRB data record.
	CSRBWRBA	The WRB that matched the input search criteria and the address' of the Unit(s)-of-Work that are associated with it and the following address.
	CSRBWRBL	The length of the WRB data record.
	CSRBUOWA	The address of the first UOW data record in the APPLWRB with the required fields completed (including DKNSDSCB address).
	CSRBUOWL	The length of the UOW data record from the requester.
APPLWRB	All Fields	The WRB that matched the input search criteria and the address' of the Unit(s)-of-Work that are associated with it and the following address.
DKNSDSCB	All Fields	The DSCB of the first attached functional UOW with UOWDS access information.
Data space	N/A	The data space with addressability and complete with data as described in “Unit-of-Work Data Space (UOWDS) Layout and Create Details” on page A-14. This is for the first attached functional UOW.

Figure 5-64. UOWDS GETNEXT Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	4	Request failed due to UOWDS already active.
8	0	Request failed for TERMAWRB problem.
8	4	Request failed for input data problem.
8	8	Request failed for STORAGE macro problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.
8	20	Request failed for DSPSERV or ALESERV macro problem.
8	24	Request failed for UOW data space data problem (typically end of chain delimiter, pointers or record count).
8	28	Request failed for UOW Update problem.

Unit-of-Work Data Space (UOWDS) - SPECIFIC Service Request

Requests Enhanced System Manager create a unit-of-work data space for a specific string. This is a fastpath sequencing function and performs the following.

1. Invokes the UOW - READ API.
2. Handles deleted strings as follows
   - Returns to application with failure code.
3. Invokes the DTASPACE - GETSIZE API.
4. Invokes the DTASPACE - CREATE API.
5. Invokes the DTASPACE - LOAD API.

6. Updates the UOW with the DSCB address and the DSCB information in the Enhanced System Manager track area.

Figure 5-65. UOWDS SPECIFIC Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOWDS"
	CSRBACT	The requested action is "SPECIFIC"
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID
	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHINSPCT	The percentage (0-999), in hexadecimal, of data space to allocate for application item insertions into the string.
	JHXRECTP	The type of user XREC, and in turn string format, that the application desires to be placed into the data space.

Figure 5-66. UOWDS SPECIFIC Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-67 on page 5-27.
	CSRBRESC	Request Reason Code in Figure 5-67 on page 5-27.
	CSRBUOWA	The address of a completed UOW data record.
	CSRBUOWL	The length of the UOW data record.
DKNUOWDR/ DKNCUWDR	All Fields	The UOW that matched the input search criteria
DKNSDSCB	All Fields	The DSCB associated with the returned UOW.
Data space	N/A	The data space with addressability and complete with data as described in “Unit-of-Work Data Space (UOWDS) Layout and Create Details” on page A-14.

Figure 5-67. UOWDS SPECIFIC Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found.
4	4	Request failed due to UOWDS already active.
4	8	Request failed due to deleted string detect.
8	0	Request failed for TERMAWRB problem.
8	4	Request failed for input data problem.
8	8	Request failed for STORAGE macro problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.
8	20	Request failed for DSPSERV or ALESERV macro problem.

Figure 5-67. UOWDS SPECIFIC Specific Service Request Return Codes

Return Code	Reason Code	Description
8	24	Request failed for UOW data space data problem (typically end of chain delimiter, pointers or record count).
8	28	Request failed for UOW Update problem.

Unit-of-Work Data Space (UOWDS) - TERMINAT Service Request

Requests Enhanced System Manager delete a data space if present, then terminates processing on the input unit-of-work with a user supplied completion code. This is a fastpath sequencing function and performs the following.

1. Invokes the UOW - READ API.
2. Invokes the DTASPACE - DELETE API.
3. Invokes the APPLWRB - TERMINAT API.

Figure 5-68. UOWDS TERMINAT Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOWDS"
	CSRBACT	The requested action is "TERMINAT"
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the following fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
	CSRBUCC	Four bytes for the return codes to use in termination, for example, X'00000107' as a user completion code.
DKNWRB/ DKNCWRB	WRBTASK1	Eight bytes for the name of the task to use in the search
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID

Figure 5-69 (Page 1 of 2). UOWDS TERMINAT Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-70 on page 5-28.
	CSRBRESC	Request Reason Code in Figure 5-70 on page 5-28.

Figure 5-70. UOWDS TERMINAT Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found
4	8	Request failed for STORAGE macro problem.
4	20	Request failed for DSPSERV or ALESERV macro problem.

Figure 5-70. UOWDS TERMINAT Specific Service Request Return Codes

Return Code	Reason Code	Description
4	36	Request failed for DSCB data problem after output string created.
8	0	Request failed for UOW Read problem.
8	4	Request failed for input data problem.
8	28	Request failed for UOW Update problem.
8	32	Request failed for LISTUOW problem.

Unit-of-Work Data Space (UOWDS) - COMPLETE Service Request

Requests Enhanced System Manager unload a unit-of-work data space for a specific string (creating a new string as named in the ZEDSCT), then terminates processing on the input unit-of-work with a successful completion code. This is a fastpath sequencing function and performs the following.

1. Invokes the UOW - READ API.
2. Invokes the DTASPACE - UNLOAD API.
3. Invokes the INPUTSDE - UPDATE API if string not deleted.
4. Invokes the UOWDS - TERMINAT API with CSRBUCC = X'00000nnn', where *nnn* is the value to be put in the user completion code (UCC).

Figure 5-71 (Page 1 of 2). UOWDS COMPLETE Service Request Specific Fields

Data Structure	Fields	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBOBJ	The requested object is "UOWDS"
	CSRBACT	The requested action is "COMPLETE"
	CSRBUCC	The User Completion Code (UCC), four bytes for the return codes to use in termination; for example, X'00000017' as a user completion code 017.
	CSRBWRBA	The address of a cleared (X'00') WRB data record from the requester with the required fields completed.
	CSRBWRBL	The length of the WRB data record from the requester.
	CSRBUOWA	The address of a cleared (X'00') UOW data record from the requester with the required fields completed.
	CSRBUOWL	The length of the UOW data record from the requester.
DKNWRB/ DKNCWRB	WRBTASK1	Eight bytes for the name of the task to use in the search
DKNUOWDR/ DKNCUWDR	UOWSTAT	Filter for which Enhanced System Manager queue is to search; typically ready (R) but optional.
	UOWID and/or UOWSTR	The 15 byte UOW-ID and/or the 24 byte String-ID
DKNUOWDR/ DKNCUWDR	UOWDSCBA	The address of a cleared (X'00') DSCB data record from the requester with the required fields completed.
DKNSDSCB	JHXRECTP	The type of XREC, and in turn string format, that the application desires to be removed from the data space.
	JHMDSFMD	The state that the application wants an uncompleted string to be left in, 00 -partial string in CLS state with count of last record processed, 01 - D or M string purged with others left in RST mode but no count.

Figure 5-71 (Page 2 of 2). UOWDS COMPLETE Service Request Specific Fields

Data Structure	Fields	Description/Contents
ZEDSCT	<Variable>	Appropriate updates made to the ZEDSCT structure included in the data space including but not limited to the name to be used for the new string in the field ZESTGNAM.
DKNSDSHB	<Variable>	Appropriate updates made to the data space header record in the data space. These updates include but are not limited to JBDATPTR, JBQUWLCM, and JURNEXT.

Figure 5-72. UOWDS COMPLETE Service Request Returned Fields

Data Structure	Field	Description/Contents
DKNCSRBA/ DKNSMCRB	CSRBRETC	Request Return Code in Figure 5-73.
	CSRBRESC	Request Reason Code in Figure 5-73.

Figure 5-73. UOWDS COMPLETE Specific Service Request Return Codes

Return Code	Reason Code	Description
4	0	Unit of Work (UOW) was not found during APPLWRB TERMINAT after output string was created.
4	4	No active UOWDS for this UOW
4	8	Request failed for STORAGE macro problem.
4	12	Request failed for Mass Data Set I/O problem during a input string directory update after output string was created.
4	20	Request failed for DSPSERV or ALESERV macro problem.
4	28	Request failed for UOW Update problem after output string was created.
4	32	Request failed for LISTUOW problem after output string was created.
4	36	Request failed for an input data (DSCB data) problem after the output string was created.
4	40	No active task was found for the specified task name and the specified Unit of Work (UOW) during an APPLWRB TERMINAT after the output string was created.
8	0	Unit of Work (UOW) was not found before output string was created.
8	4	Request failed for input data problem.
8	12	Request failed for Mass Data Set I/O problem.
8	16	Request failed for user exit problem.
8	24	Request failed for UOW data space data problem (typically end of chain delimiter, pointers or record count).
8	28	Request failed for UOW Update problem.

DKNSMAPI Invocation Examples

The following figures illustrate programming examples of how to invoke the Enhanced System Manager Application Programming Interface module (DKNSMAPI) with the appropriate data parameters.

APPLWRB TERMINAT Example (Assembler)

This example illustrates the assembler invocation of DKNSMAPI for an APPLWRB TERMINAT request:

```
*
*-----------------------------------------------------------------*
                  FILL IN THE REQUEST PARAMETERS
*-----------------------------------------------------------------*
*
TTERM10  DS    0H
         DKNFILL CSRB,CSRBLEN,R0,R2,X'00'  CLEAR SERVICE REQUEST BLK
         DKNFILL MYUOW,UOWDLN,R0,R2,X'00'  CLEAR UOW RECORD
         DKNFILL MYWRB,WRBLEN,R0,R2,X'00'  CLEAR WRB RECORD
TTERM20  DS    0H
         LA    R5,MYUOW              GET ADDRESS OF "WORK" UOW REC
         ST    R5,CSRBUOWA           STORE ADDRESS IN CSRB
         LA    R5,UOWDLN             GET LENGTH OF "WORK" UOW REC
         ST    R5,CSRBUOWL           STORE LENGTH IN CSRB
         LA    R5,MYWRB              GET ADDRESS OF "WORK" WRB REC
         ST    R5,CSRBWRBA           STORE ADDRESS IN CSRB
         LA    R5,UOWDLN             GET LENGTH OF "WORK" WRB REC
         ST    R5,CSRBWRBL           STORE LENGTH IN CSRB
         MVC   WRBTASK1,MYNAME       SPECIFY TASK TO TERMINATE
         MVC   CSRBUCC,GCRCODE       SPECIFY USER RETURN CODE
         MVC   UOWID,MYUOWID         CPY REQUESTED UOW ID INTO RECD
         MVC   UOWSTAT,=C'R'         CPY UOW STATUS INTO UOW RECORD
TTERM30  DS    0H
         MVC   CSRBAPTB,MYAPTCB      STORE MY APTCB ADDRESS
         MVC   CSRBOCOP,OCOPRMLA     GET THE OCO PARMLIST ADDRESS
         MVC   CSRBOBJ,=C'APPLWRB '  SET THE OBJECT TO APPLWRB
         MVC   CSRBACT,=C'TERMINAT'  SET THE ACTION TO TERMINATE
         LA    R1,CSRB               GET ADDRESS OF CALLERS SRB
         ST    R1,SMCSRBA            STORE IT IN DKNSMAPI'S PARML
*
*-----------------------------------------------------------------*
                 TELL SMGR TO TERMINATE THE TASK...
*-----------------------------------------------------------------*
*
TTERM40  DS    0H
         LA    R1,SMAPIPRM           GET ADDRESS OF SMAPI PARML
         L     R15,SMAPIPTR          GET ADDRESS OF DKNSMAPI...
         BASSM R14,R15               PASS CONTROL TO DKNSMAPI...
         LTR   R15,R15               WERE WE SUCCESSFUL...
         BZ    TTERM98               YES....CONTINUE...

 ...
 ...
 ...
```

Figure 5-74 (Part 1 of 2). DKNSMAPI Invocation (Assembler)

```
 ...
 ...
 ...

MYNAME   DC    CL8'DKNMYPGM'         MY PROGRAM NAME
MYAPTCB  DC    F'0'                  MY APTCB ADDRESS
MYUOWID  DC    CL15' '               MY UNIT OF WORK ID
AJACODE  DC    XL4'00000004'         USER RETURN CODE OF FOUR
GCRCODE  DC    XL4'00000008'         USER RETURN CODE OF EIGHT
CSRB     DKNCSRBA TYPE=DATA          CALLERS SERVICE REQUEST BLK
MYUOW    DC    XL(UOWDLN)'00'        MY UNIT OF WORK RECORD
MYWRB    DC    XL(WRBLEN)'00'        MY WORK REQUEST BLOCK
SMAPIPTR DC    F'0'                  DKNSMAPI'S ENTRY POINT ADDR
*
*-------------------------------------------------------------------*
THE FOLLOWING IS THE ONE FULLWORD PARAMETER LIST FOR DKNSMAPI CALLS
*-------------------------------------------------------------------*
*
SMAPIPRM DS    0F                    PARAMETER LIST FOR DKNSMAPI
SMCSRBA  DC    F'0'                  CALLER'S SERV REQUEST BLK ADDR
*
*-------------------------------------------------------------------*
                         D S E C T S
*-------------------------------------------------------------------*
*
         DKNWRB TYPE=DSECT           SMGR WORK REQUEST BLOCK RECORD
         DKNUOWDR TYPE=DSECT         SMGR UNIT OF WORK DATA RECORD
         DKNSMCSV TYPE=DSECT         SMGR CALLABLE SERVICE PARMLIST
         COPY  DKNAPTCB              CPCS APPLICATION TASK CTRL BLK
         COPY  DKNPARM               CPCS PARAMETER LIST
```

Figure 5-74 (Part 2 of 2). DKNSMAPI Invocation (Assembler)

UOW READ Example (COBOL)

This example illustrates the COBOL invocation of DKNSMAPI for a UOW READ request:

Note: The storage for the linkage section work areas is allocated in ATASK when the DKNBLDL entry for the module contains a `WORK=` parameter. For the example shown, code `WORK=3100` in the DKNBLDL.

```
       WORKING-STORAGE SECTION.

       01  WS-STG-NAME.
           05  WS-STG-ENTRY            PIC X(4) VALUE SPACES.
           05  WS-STG-PASS             PIC 9    VALUE ZERO.
           05  WS-STG-PKTS.
               10  WS-STG-PKT1         PIC XX   VALUE SPACES.
               10  WS-STG-PKT2         PIC XX   VALUE SPACES.
               10  WS-STG-PKT3         PIC XX   VALUE SPACES.
               10  WS-STG-PKT4         PIC XX   VALUE SPACES.
           05  WS-STG-PKTS-R REDEFINES WS-STG-PKTS.
               10  WS-STG-PKT  OCCURS 4 TIMES  PIC 99.
           05  WS-STG-TYPE             PIC X     VALUE SPACE.
           05  WS-STG-SUBSET           PIC X(3)  VALUE SPACES.
       01  WS-WORK-FIELDS.
           05  WS-INDEX                PIC S9(8) COMP VALUE 0.
           05  HEX01                   PIC X VALUE X'01'.
           05  HEX07                   PIC X VALUE X'07'.

       01  SW-SWITCHES.
           05  ERROR-IN-PROCESSING      PIC  X(01)      VALUE SPACE.

      *** DKNSMAPI PARAMETER LIST
           COPY DKNSMCRB.

       LINKAGE SECTION.

           COPY DKNCATCB.
           03  WORK-AREA-UOWREC           PIC X(1000).
           03  WORK-AREA-SMAPI-RETURN     PIC X(2000).
           03  WORK-AREA-CSRB-SENDLIST    PIC X(100).

       01  OCOPL                          POINTER.

           COPY DKNCWRB.

           COPY DKNCUWDR.

...
...
...
```

Figure 5-75 (Part 1 of 2). DKNSMAPI Invocation (COBOL)

```
...
...
...

          MOVE 'DKNCSRB ' TO CSRB-STRUCTURE-ID
          SET CSRB-OCO-PLIST TO APTCB-SMGR-OCOPL-ADDR
          MOVE 0          TO CSRB-RETURN-CODE1
                             CSRB-RETURN-CODE2
          SET CSRB-RETURN-RSVD1 TO NULLS
          SET CSRB-RETURN-RSVD2 TO NULLS
          SET CSRB-APTCB TO ADDRESS OF APTCB
          SET CSRB-UOW-ADDRESS TO ADDRESS OF WORK-AREA-UOWREC
          SET CSRB-UOW-LENGTH TO LENGTH OF UOW-DATA-REC
          MOVE 'UOW     ' TO CSRB-OBJECT
          MOVE 'READ    ' TO CSRB-ACTION
          MOVE LOW-VALUES TO UOW-DATA-REC
          MOVE WS-STG-ENTRY TO UOW-DR-ENTRY
          MOVE WS-STG-PASS TO UOW-DR-PASS
          MOVE WS-STG-PKT1 TO UOW-DR-PKT1
          MOVE WS-STG-PKT2 TO UOW-DR-PKT2
          MOVE WS-STG-PKT3 TO UOW-DR-PKT3
          MOVE WS-STG-PKT4 TO UOW-DR-PKT4
          MOVE WS-STG-TYPE TO UOW-DR-TYPE
          MOVE WS-STG-SUBSET TO UOW-DR-SUBSET
          MOVE '-' TO UOW-DR-DASH1
                      UOW-DR-DASH2
                      UOW-DR-DASH3
                      UOW-DR-DASH4
                      UOW-DR-DASH5
                      UOW-DR-DASH6
                      UOW-DR-DASH7
          CALL 'DKNSMAPI' USING CSRB
          IF  CSRB-RETURN-CODE1  =  0
          THEN
              MOVE 'N' TO ERROR-IN-PROCESSING
          ELSE
              MOVE 'Y' TO ERROR-IN-PROCESSING
```

Figure 5-75 (Part 2 of 2). DKNSMAPI Invocation (COBOL)

Appendix A. Data-Area Layouts for General-Use Programming

General-Use Programming Interface

This appendix describes the common data-area layouts of the Enhanced System Manager.

DKNSMCSV—Assembler Callable Services Communication Vector

This record layout contains addresses for the general-use Enhanced System Manager callable services:

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMCSV)

The following table contains Assembler H names.

Figure A-1. DKNSMCSV - Enhanced System Manager Callable Services

Label	Type	Length	Description
SMCSVEYE	Character	8	Callable Services Parmlist Eyecatcher (DKNSMCSV)
SMAIXADR	Fullword	4	DKNSMAIX's entry point address
SMQPUTA	Fullword	4	DKNSMQP's entry point address
SMAPIA	Fullword	4	DKNSMAPI's entry point address
SMEVCA	Fullword	4	DKNSMEVC's entry point address
SMEVETBL	Fullword	4	Enhanced System Manager event table address
	Fullword	4	Reserved for future callable service
	Fullword	4	Reserved for future callable service
	Fullword	4	Reserved for future callable service
	Fullword	4	Reserved for future callable service

Callable Service-Request Block

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 member (DKNCSRBA)
COBOL *ESM.V01R01*.SDKNSRC1 for member (DKNSMCRB)

An application program copies DKNSMCRB into the linkage section of the program and uses it in the program call to the COBOL application program interface (DKNSMAPI).

The following table contains Assembler H names.

This record layout contains data for the general-use Enhanced System Manager callable services requests:

Figure A-2. DKNCSRBA - Enhanced System Manager Callable Service Request Block (CSRB)

Label	Type	Length	Description
CSRBEYE	Character	8	Callable Service Request Block Eyecatcher (DKNCSRBA)
CSRBRETN	Group	(8)	Service Request Return Code Label for the following group.
CSRBRETC	Fullword	4	Service Request Return Code
CSRBRESC	Fullword	4	Service Request Reason Code
CSRBOBJ	Character	8	Target Object Name
CSRBACT	Character	8	Action to perform against target object
CSRBAPTB	Fullword	4	Requestor's APTCB address
CSRBOCOP	Fullword	4	OCO parameter list address
CSRBWRBA	Fullword	4	Address of requester's WRB; zero if not in use.
CSRBWRBL	Fullword	4	Length of requester's WRB; zero if not in use.
CSRBUOWA	Fullword	4	Address of requester's UOW; zero if not in use.
CSRBUOWL	Fullword	4	Length of requester's UOW; zero if not in use.
CSRBREQA	Fullword	4	Address of requester's variable data area; zero if not in use.
CSRBREQL	Fullword	4	Length of requester's variable data area; zero if not in use.
CSRBAPWA	Fullword	4	Address of returned Application Work Request Block (APPLWRB); zero if not in use.
CSRBAPWL	Fullword	4	Length of returned Application Work Request Block (APPLWRB); zero if not in use.
CSRBLSTA	Fullword	4	Address of returned list area; zero it not in use
CSRBLSTL	Fullword	4	Length of returned list area; zero it not in use
CSRBRTNA	Fullword	4	Address of Request Return Information Data Buffer. Used for things like USERXREC, etc.
CSRBRTNL	Fullword	4	Length of Request Return Information Data Buffer
CSRBUCC	Fullword	4	Requesters User return code to be used
CSRBRVD1	Fullword	4	Reserved for System Manager
CSRBRVD2	Fullword	4	Reserved for System Manager
CSRBRVD3	Fullword	4	Reserved for System Manager
CSRBRVD4	Fullword	4	Reserved for System Manager
CSRBLEN	Equate	0	Length of the System Manager CSRB Data Structure

Work-Request Block (WRB)

This control block contains detailed information about a task. There is one WRB built for each COPY of a task to be run.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNWRB)
COBOL *ESM.V01R01*.SDKNSRC1 for member (DKNCWRB)

The following table contains Assembler H names.

Figure A-3 (Page 1 of 3). DKNWRB - Work Request Block (WRB) Data Record Definition

Label	Type	Length	Description
WRBKEY	Group	(98)	High Level Key Label for the following group.
WRBKEY1	Group	(14)	Another High Level Key Label for the following group.
WRBAPTCB	Fullword	4	Task's APTCB Address (If manual)
	Character	2	Reserved for IBM
WRBTASK1	Character	8	Task Name
WRBKEY2	group	(80)	Another High Level Key Label for the following group.
WRBPROF	Character	2	Task Profile Version
WRBDESC	Character	15	Task Profile Description
WRBFLAG	Group	(4)	Task Profile Flags Label for the following group.
WRBFLAG1	Hexadecimal	1	Unit of Work (UOW) Grouping **1** Individual **2** Category **3** Endpoint **4** Bank **5** Workflow
WRBFLAG2	Hexadecimal	1	Grouping Level **1** Subset **2** Pass **3** Entry **4** Sort Pattern **5** Cycle
WRBFLAG3	Hexadecimal	1	User Level Grouping **0** None **1** User Field #1 ONLY **2** User Field #2 ONLY **3** Both User Fields
WRBSTE	Hexadecimal	1	Special Time Event Flag **1** COLD Start **2** WARM Start **3** After ENDPRIME **4** After End Cycle
WRBTG	Character	4	Tracer Group Number
WRBPASS	Character	1	Pass Number (1-4)
WRBENTRY	Character	4	Entry Number
WRBSORTP	Character	4	Sort Pattern Number
WRBCYCL	Character	2	Cycle Number
WRBUOW	Character	15	Unit of Work (UOW) Id
WRBENDPT	Character	8	Endpoint
WRBCAT	Character	2	Unit of Work (UOW) Category
WRBBANK	Character	3	Bank Number
WRBUSR1	Character	8	User Level Grouping Field #1
WRBUSR2	Character	8	User Level Grouping Field #2
WRBOSITE	Character	8	Owning Site Identifier

Figure A-3 (Page 2 of 3). DKNWRB - Work Request Block (WRB) Data Record Definition

Label	Type	Length	Description
WRBPSITE	Character	8	Processing Site Identifier
WRBSUBTA	Character	8	Subtask Name
WRBRTYPE	Hexadecimal	1	Run Type Flag **X'80'** Auto Start Indicator **X'40'** Manual Start Indicator **X'20'** Force Start Indicator **X'10'** Held Indicator **X'08'** Normal Indicator **X'04'** Restart Indicator **X'02'** Re-Run Indicator **X'01'** Split Indicator
WRBPRTY	Hexadecimal	1	Priority **0** Lowest Priority **1-4** Lower Priorities **5** Default Priority **6-8** Higher Priorities **9** Highest Priority **X'FF'** Active
WRBSDATE	Hexadecimal	4	Task Start Date
WRBSTIME	Packed	4	Task Start Time
WRBEDATE	Packed	4	Task End Date
WRBETIME	Hexadecimal	4	Task End Time
WRBUCC	Hexadecimal	4	User Completion Code
WRBSCC	Hexadecimal	4	System Completion Code
WRBSTAT	Character	1	Status **P** Pending **R** Ready **C** Complete
WRBTFLAG	Character	1	Time Event Flag **1** Time of Day Event **2** Pause Event **3** Interval Event
WRBTIMER	Hexadecimal	2	Timer Value (X'HHMM' Unsigned Packed)
WRBUSER	Fullword	4	Variable Length User Data Address
WRBFUOWN	Fullword	4	Number of Attached Functional UOWs
WRBFUOWF	Fullword	4	Address of First Attached FUOW
WRBFUOWL	Fullword	4	Address of Last Attached FUOW
WRBCUOWN	Fullword	4	Number of Attached Control UOWs
WRBCUOWF	Fullword	4	Address of First Attached CUOW
WRBCUOWL	Fullword	4	Address of Last Attached CUOW
WRBAPPL	Fullword	4	Application WRB Address
WRBCYCDT	Packed	4	Cycle Date
WRBTSTMP	Doubleword	8	WRB Record Creation Time Stamp
WRBICNT	packed	8	The record count total for all functional units of work
WRBIAMT	packed	10	The amount total for all functional units of work
WRBSORTR	character	2	The CPCS logical sorter number of the functional unit of work
WRBSOPS	Group	(44)	Search Operators Label for the following group.
WRBSOP01	Character	2	Search Operator for "Priority" **EQ** Equal to... **LT** Less than... **LE** Less than or equal to... **GT** Greater than... **GE** Greater than or equal to...

Figure A-3 (Page 3 of 3). DKNWRB - Work Request Block (WRB) Data Record Definition

Label	Type	Length	Description
WRBSOP02	Character	2	Search Operator for "SCC" **EQ** Equal to... **LT** Less than... **LE** Less than or equal to... **GT** Greater than... **GE** Greater than or equal to...
WRBSOP03	Character	2	Search Operator for "UCC" **EQ** Equal to... **LT** Less than... **LE** Less than or equal to... **GT** Greater than... **GE** Greater than or equal to...
WRBSOP04	Character	2	Search Operator - Reserved
WRBSOP05	Character	2	Search Operator - Reserved
WRBSOP06	Character	2	Search Operator - Reserved
WRBSOP07	Character	2	Search Operator - Reserved
WRBSOP08	Character	2	Search Operator - Reserved
WRBSOP09	Character	2	Search Operator - Reserved
WRBSOP10	Character	2	Search Operator - Reserved
WRBSOP11	Character	2	Search Operator - Reserved
WRBSOP12	Character	2	Search Operator - Reserved
WRBSOP13	Character	2	Search Operator - Reserved
WRBSOP14	Character	2	Search Operator - Reserved
WRBSOP15	Character	2	Search Operator - Reserved
WRBSOP16	Character	2	Search Operator - Reserved
WRBFILL	Fullword	12	Reserved by Enhanced System Manager

Unit-of-Work (UOW) Data Record

This record layout contains data for both Functional and Control UOWs.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNUOWDR)
COBOL *ESM.V01R01*.SDKNSRC1 for member (DKNCUWDR)

The following table contains Assembler H names.

Figure A-4 (Page 1 of 2). DKNUOWDR - Unit Of Work (UOW) Data Record Definition

Label	Type	Length	Description
UOWDREC	Group	(180)	Unit of Work (UOW) Data Record Label for the following group
UOWID	Group	(15)	UOW Identification Number Label for the following group
UOWIDDAT	Character	7	UOW Creation Date (YYYYDDD)
UOWIDSER	Character	8	UOW Serial Number (1 - 99,999,999)
UOWTYPE	Character	1	UOW Type **F** Functional **C** Control
UOWPARID	Fullword	4	UOW Parent Id
UOWSTAT	Character	1	UOW Status **P** Pending (CUOWs Only) **R** Ready **D** Deleted
UOWSTR	Group	(24)	CPCS String associated with this UOW Label for the following group
UOWENTRY	Character	4	CPCS String - Entry Number
UOWDASH1	Character	1	CPCS String - ('-')
UOWPASS	Character	1	CPCS String - Pass
UOWDASH2	Character	1	CPCS String - ('-')
UOWPPH1	Character	2	CPCS String - Pass Pocket History 1
UOWDASH3	Character	1	CPCS String - ('-')
UOWPPH2	Character	2	CPCS String - Pass Pocket History 2
UOWDASH4	Character	1	CPCS String - ('-')
UOWPPH3	Character	2	CPCS String - Pass Pocket History 3
UOWDASH5	Character	1	CPCS String - ('-')
UOWPPH4	Character	2	CPCS String - Pass Pocket History 4
UOWDASH6	Character	1	CPCS String - ('-')
UOWSTYPE	Character	1	CPCS String - String Type
UOWDASH7	Character	1	CPCS String - ('-')
UOWSUBS	Character	3	CPCS String - Subset Number
UOWCYL	Character	2	Cycle Number
UOWTRACE	Character	4	Tracer Group Number
UOWSORTR	Character	2	Logical Sorter Number
UOWSORTP	Character	3	Sort Pattern Number
UOWGRP	Character	3	Group (User-Defined)
UOWCLS	Character	3	Class (User-Defined)
UOWCOUNT	Packed	8	Item Count Total
UOWAMT	Packed	10	Item Amount Total
UOWBANK	Character	3	Bank Number
UOWENDPT	Character	8	Endpoint
UOWCAT	Character	2	String Category

Figure A-4 (Page 2 of 2). DKNUOWDR - Unit Of Work (UOW) Data Record Definition

Label	Type	Length	Description
UOWCTASK	Character	8	Creating Task Name
UOWCSS	Character	3	Control UOW (CUOW) Saved Subset Number
UOWCTIME	Fullword	4	"Latest" String Creation Time
UOWDNEXT	Fullword	4	Next UOW Address for Applications
UOWCSUB	Character	4	CUOW Subtype **FIRS** First Occurrence of a Task **LAST** Last Occurrence of a Task **EVER** Every occurrence of a Task **PREV** Previous Task in Workflow **INIT** System Initialization Event **PAUS** Pause Event **TIME** Time of Day Event **PASS** All D-Strings for the pass are present event.
UOWCLVL	Character	4	CUOW Level (SUB,PASS,ENTR,PATT,CYCL) **SUB** Subset Grouping **PASS** Pass Grouping **ENTR** Entry Grouping **PATT** Sort Pattern Grouping **CYCL** Cycle Grouping
UOWUSR1	Character	8	User Level Grouping Field #1
UOWUSR2	Character	8	User Level Grouping Field #2
UOWTSTMP	Doubleword	8	UOW Creation Time Stamp (STCK)
UOWWFDB	Hexadecimal	1	UOW Workflow Database Index
UOWTPDB	Hexadecimal	1	UOW Task Profile Database Index
UOWCYCDT	Character	4	UOW Cycle Date
UOWSRTR	Hexadecimal	2	UOW Sorter
UOWOSITE	Character	8	Owning Site Identifier
UOWPSITE	Character	8	Processing Site Identifier
UOWDSCBA	Hexadecimal	4	Data Space Control Block (DSCB) Address
UOWTASKF	Hexadecimal	4	UOW First TLR Hiperpointer
UOWTASKL	Hexadecimal	4	UOW Last TLR Hiperpointer

Unit-of-Work Data Space (UOWDS) Control Block (DSCB)

This record layout contains addresses for the general-use Enhanced System Manager callable services:

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSDSCA)

The following table contains Assembler H names.

Figure A-5. DKNSDSCB - UOW Data Space (UOWDS) Control Block

Label	Type	Length	Description
JHUCBID	Char	8	Control block identification number. This field contains DKNSDSCB. This is a constant value.
JHUSTOKN	Char	8	Stoken of data space.
JHNNAME	Char	8	Data space name.
JHUALET	Bin	4	Access list entry token. This is the data space ALET that points to the unit-of-work data space.
JHQOFSET	Bin	4	Data space origin offset. To access data space, use this field with the ALET.
JHQSPAN	Bin	4	Data space block span.
JHINSPCT	Bin	2	Percentage of inserted space in the data space that is requested (0-999), in hexadecimal.
JHXRECTP	Char	2	User XREC Type request flag, 00 - compressed MDS format, 01 - compressed DKNSMX03 format.
JHMDSFMD	Bin	1	Mass Dataset String Create Failure Mode, 00 - partial string in CLS mode with count of last record processed, 01 - D or M string purged with others in RST mode but no count.
JHRESV1	Bin	3	Reserved
JHRESV2	Bin	4	Reserved
JHRESV3	Bin	8	Reserved
JHRESV4	Bin	8	Reserved

Unit-of-Work Data Space (UOWDS) Header Record

This record layout contains addresses for the general-use Enhanced System Manager callable services:

The Enhanced System Manager Unit-of-Work Data Space Header record (DKNSDSHB) is a control record that supplies information about the unit of work data space. This information includes the string directory data and the user (xrec) field format.

The Enhanced System Manager Unit-of-Work Data Space contains one Unit of Work Data Space record. The record consists of one unit-of-work header record (DKNSDSHB), followed by one or more DKNSDSIB records. The JHUALET and JHQOFSET fields in DKNSDSCB point to DKNSDSHB in the data space.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSDSHA)
'C' Language *ESM.V01R01*.SDKNSRC1 for member (DKNSDSHB)

The following table contains Assembler H names.

Figure A-6 (Page 1 of 2). DKNSDSHB - UOW Data Space Header Record

Label	Type	Length	Description
JBUCBID	Char	8	Control block identification number. This field contains DKNSDSHB. This is a constant value.
JBNTASK	Char	8	Task name for the application that is processing the unit of work
JBUSTAT	Char	1	Status of the unit of work.
JBUWPRTY	Char	8	Priority assignment for the unit of work.
JBEXAOFF	Mixed	2	Offset to the Mass Dataset Extended Area
JBINSPCT	Mixed	2	Percentage of data space allowed for inserted records
JBMDSLEN	Bin	2	Length of DKNSDSIB. This is the sum of the: • User formatted string record length • Enhanced System Manager housekeeping information and pointers • Padding to force doubleword alignment
JBUUOWID	Char	15	Identification key for the unit of work, in the format `ccdddnnnnnnnnnn`, where: **cc** Cycle **ddd** Julian day **nnnnnnnnnn** Ten-digit sequence number from CPCS
JBFILL2	Mixed	1	Reserved
JBUSTRID	Char	24	CPCS string name, in the format `EEEE-P-P1-P1-P3-P4-T-SSS`. For information about the format of this string, see the *Check Processing Control System: Programming and Diagnostic Guide*.
JB@APTCB	Bin	4	Address of the APTCB for the calling application. The calling application supplies this information.
JBDATPTR	Bin	4	Unit-of-work data space item record first pointer. This is the pointer to the first DKNSDSIB. It is offset from 0 in the data space.
JBRAPDAN	Bin	4	Application data insert pointer. This field points to the area for data record inserts.
JBSPAN	Bin	4	DS SPAN in 4K blocks
JBLAPDAN	PD	8	Application data insert length

Figure A-6 (Page 2 of 2). DKNSDSHB - UOW Data Space Header Record

Label	Type	Length	Description
JBQUWRCD	PD	8	Number of records in the unit of work when loaded by the Enhanced System Manager.
JBQUWLCM	PD	8	Total number of records that the application returned. The Enhanced System Manager sets this field to 0, and it is the responsibility of your application to update this field with the actual number of returned records (the completed-record count for the unit of work). The calling application supplies this information.
JBUWKAR1	Mixed	256	Application work area (reserved for IBM use)
JBUWKAR2	Mixed	256	Application work area (reserved for non-IBM use)
JBMDXREC	Mixed	800	Copy of the user XREC, which is data that CPCS supplies to define the string record after manipulation. The mass-data-set expansion characteristics map (MDXREC) defines the user XREC.
JBTZE	Mixed	1256	String directory record in the expanded ZE parameter (ZEDSCT) format.

Unit-of-Work Data Space (UOWDS) Item Record

The Enhanced System Manager Unit-of-Work Data Space record contains one Unit of Work. The record consists of one unit-of-work header record (DKNSDSHB), followed by one or more DKNSDSIB records.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSDSIA)
'C' Language *ESM.V01R01*.SDKNSRC1 for member (DKNSDSIB)

The following table contains Assembler H names.

Figure A-7. DKNSDSIB - UOW Data Space Item Record

Label	Type	Length	Description
JUURECID	Char	8	Control block identification number, which contains DKNSDSIB.
JURNEXT	Bin	4	Pointer to the next DKNSDSIB record. If this is the last record in the unit of work, the value is X'FFFFFFFF'.
JURPREV	Bin	4	Pointer to the previous DKNSDSIB record. If this is the first record in the unit of work, the value is X'FFFFFFFF'.
JUTRWORK	Mixed	32	Application record work area
JUMDSREC	Mixed	Var	The user string record after undergoing data manipulation. The mass data set expansion characteristics map (MDXREC) DSECT defines the record and JBMDSLEN determines the variable length of the record.

Unit-of-Work Data Space (UOWDS) Exit Control Block

This record layout contains addresses for the general-use Enhanced System Manager exits:

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMD08)

The following table contains Assembler H names.

Figure A-8 (Page 1 of 2). DKNSMD08 - UOW Data Space (UOWDS) Exit Control Block

Label	Type	Length	Description
D08	Char	8	Control block eye catcher. This field contains DKNSMD08. This is a constant value.
D08OSITE	Char	8	UOW Owner Site.
D08PSITE	Char	8	UOW Processing Site.
D08APTCB	Bin	4	Address of User APTCB.
D08@ZE	Bin	4	Address of ZE area.
D08@ZA	Bin	4	Address of ZA area.
D08UXRCA	Bin	4	Address of User XREC.
D08XRECA	Bin	4	Address of MDS XREC.
D08UDSRA	Bin	4	Address of Rec. to/from UOWDS
D08UDSRL	Bin	2	Length of Rec. to/from UOWDS
D08PADA	Char	2	Pad A
D08MDSRA	Bin	4	Address of Rec. to/from MDS
D08MDSRL	Bin	2	Length of Rec. to/from MDS
D08PADB	Char	2	Pad B
D08RETCD	Bin	4	Exit Return Code
D08RSNCD	Bin	4	Exit Reason Code
D08UXRCT	Char	2	User XREC Type requested
D08PAD1	Char	2	Pad 1
D08OSTRT	group	(17)	Output String Name to Exit
D08TRGP	Char	4	Tracer Group
D08PASS	Char	1	Pass
D08P1PKT	Bin	2	Pass 1 pocket
D08P2PKT	Bin	2	Pass 2 pocket
D08P3PKT	Bin	2	Pass 3 pocket
D08P4PKT	Bin	2	Pass 4 pocket
D08TYPE	Char	1	String Type
D08SUBST	Char	3	Substring Number
D08PAD2	Char	7	Pad 2
D08OSTRF	group	(17)	Output String Name from Exit
D08TRGPF	Char	4	Tracer Group
D08PASSF	Char	1	Pass
D08P1PKF	Bin	2	Pass 1 pocket
D08P2PKF	Bin	2	Pass 2 pocket
D08P3PKF	Bin	2	Pass 3 pocket
D08P4PKF	Bin	2	Pass 4 pocket
D08TYPEF	Char	1	String Type
D08SUBSF	Char	3	Substring Number
D08XCNTL	Hex	1	Exit control field - equates follow
D08EXREC	Equate	X'80'	Exclude this record from the process

Figure A-8 (Page 2 of 2). DKNSMD08 - UOW Data Space (UOWDS) Exit Control Block

Label	Type	Length	Description
D08INREC	Equate	X'40'	Insert this record to the process and return the current record again.
D08FDMOD	Hex	4	Field modified indicator, bit field corresponding to the MDXREC field that was modified.
D08PAD3	Hex	4	Pad 3
D08PAD4	Char	6	Pad 4
D08LEN	Equate	1	Length of DKNSMD08 control block

Unit-of-Work Data Space (UOWDS) Layout and Create Details

The Unit-of-Work Data Space is created with the following options:

Figure A-9. Options for the Unit-of-Work Data Space. Also included are the specific macros from which the options come.

Unit-of-Work Data Space Options	For/From Macros
SCOPE=ALL	For DSPSERV macro
STOKEN=JHUSTOKN	From DSPSERV macro
NAME=DSMNAME	DSM is suffix of macro generated unique name.
GENNAME=YES	For DSPSERV macro
OUTNAME=JHUNAME	From DSPSERV macro
ORIGIN=JHQOFSET	From DSPSERV macro
BLOCKS=JHQSPAN	For DSPSERV macro, calculation from DTASPACE GETSIZE API or from requester with the JHQSPAN field of DKNSDSCB.
NUMBLKS=DSPBLKS	From DSPSERV macro
Subsequent addressability is provided with the ALESERV macro options of:	
STOKEN=JHUSTOKN	For ALESERV macro
ALET=JHUALET	From ALESERV macro
AL=PASN	From ALESERV macro

The Unit-of-Work Data Space contains the following data:

- The Unit-of-Work Data Space Header Record (DKNSDSHB), which contains the following:
  - UOW DS data
  - An 800-byte area to hold a copy of the user XREC for the string contained within this data space. The user XREC type is specified with the JHXRECTP field of the DKNSDSCB. The format of the user XREC follows the MDXREC template.
  - A 1256-byte area to hold a copy of the String Directory Record in the expanded ZE parameter format (ZEDSCT).
- One Unit-of-Work Data Space Item Record (DKNSDSIB) for each item within the string that is contained within this data space.
- Optional insert space area as specified with the JHINSPCT field of the DKNSDSCB.

Application Work Request Block (APPLWRB)

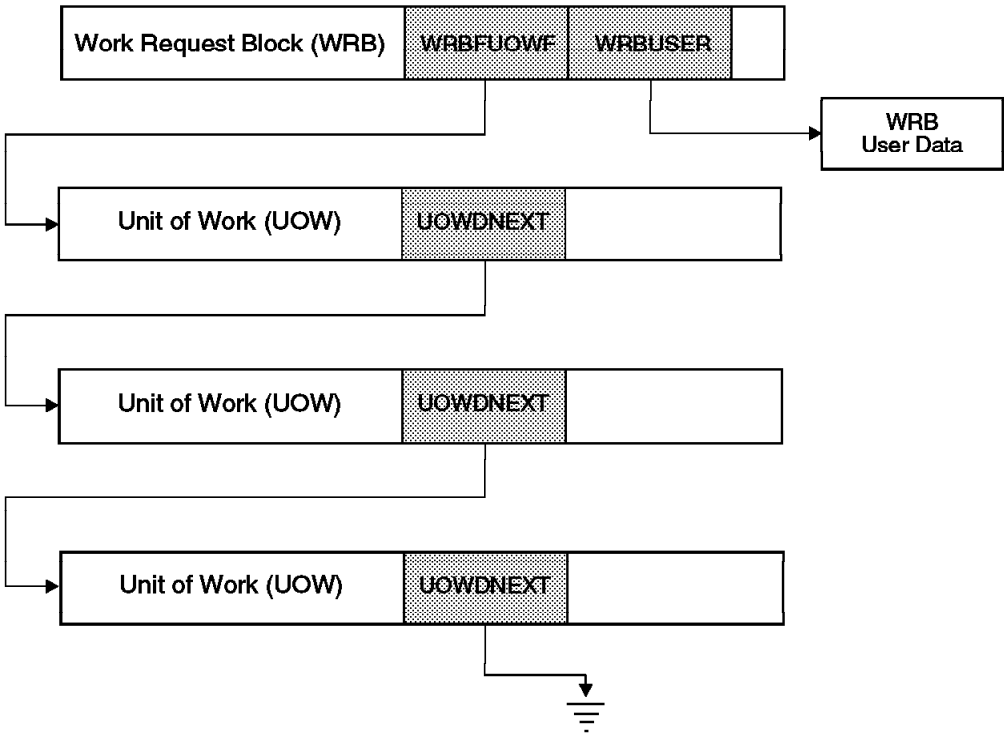


Figure A-10. Application Work Request Block (APPLWRB). This figure illustrates the Application Work Request Block (APPLWRB) data structure as passed to Enhanced System Manager started applications and passed to calling applications as a result of the APPLWRB GETNEXT or the UOWDS GETNEXT general use APIs.

Application Unit-of-Work List (APPLUOWL) Data Structure

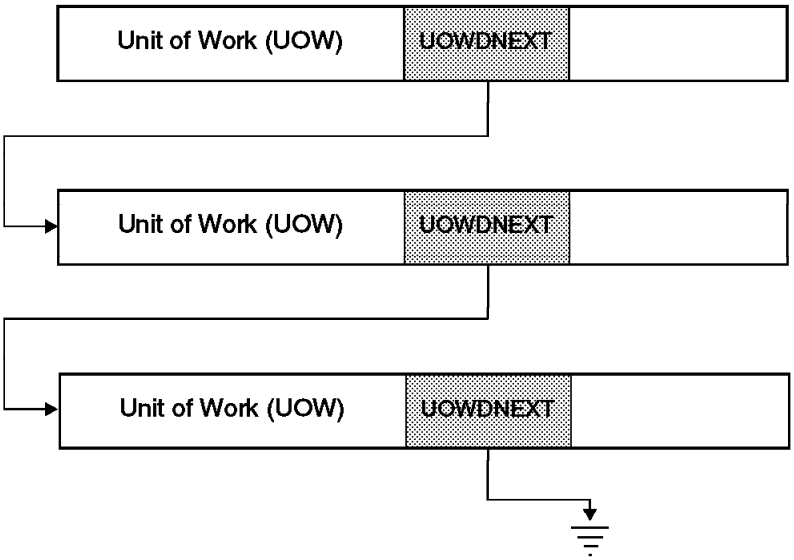


Figure A-11. Application Unit-of-Work List (APPLUOWL) Data Structure. This figure illustrates the Application Unit-of-Work List (APPLUOWL) data structure as passed to calling applications as a result of the UOW GETLIST general-use API.

DKNMISCD—MIS Code Copybook

This record layout contains the MIS Statistics codes used by Enhanced System Manager.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNMISCD)

Figure A-12 contains Assembler H names.

Figure A-12. DKNMISCD - Enhanced System Manager/MIS Statistics Codes Copybook

Label	Type	Length	Description
			MIS Stat Code for tracer record
TGSTCD	Char	3	Value = AUG
			MIS Stat Code for TLR record
TLRSTCD	Char	3	Value = C'AUX'
			MIS Stat Code for UOW record
UOWSTCD	Char	3	Value = C'AUV'
			MIS Stat Code for WRB record
WRBSTCD	Char	3	Value = C'AUT'

DKNSMSTG—DKNSMMIS Map for the MIS Tracer Group Record

This record layout contains addresses used by DKNSMMIS to map the MIS Tracer Group Record.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMSTG)

Figure A-13 table contains Assembler H names.

Figure A-13. DKNSMSTG–DKNSMMIS Map for the MIS Tracer Group Record

Label	Type	Length	Description	MIS Field Code
Note: The following fields are the header portion of the self-defining MIS record.				
MITRECID	Char	3	MIS Record ID 030 - TLR Rec	n/a
MITPGMNM	Char	8	MIS Program Name DKNSMMIS	n/a
MITFUNCD	Char	2	MIS Function Code 01	n/a
MITRTCD	Char	1	MIS Route Code 3	n/a
MITMSGLN	Hex	2	MIS Message Length Short int	n/a
MITVER	Char	6	MIS Version V1R3M0	n/a
MITSTATC	Char	3	MIS Statistics Category AUX=TLR	n/a
Note: The following fields are the self-defining data fields of the MIS record.				
MITWRBT	Char	26	WRB Timestamp MIS Timestamp	AR15
MITUOWT	Char	26	UOW Timestamp MIS Timestamp	AD06
MITAPID	Char	3	Product Code DKN	A903
MITTSKI	Char	5	Task ID SMMIS	A904
MITEVCD	Char	4	MIS Event Code 030K - TLR Create 031K - TLR Delete 032K - TLR Close 033K - TLR Free	A701

DKNSMSTT—DKNSMMIS Map for the MIS TLR Record

This record layout contains addresses used by DKNSMMIS to map the MIS TLR record.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMSTT)

Figure A-14 contains Assembler H names.

Figure A-14. DKNSMSTT–DKNSMMIS Map for the MIS TLR Record

Label	Type	Length	Description	MIS Field Code
Note: The following fields are the header portion of the self defining MIS record.				
MITRECID	Char	3	MIS Record ID 030 - TLR Rec	n/a
MITPGMNM	Char	8	MIS Program Name DKNSMMIS	n/a
MITFUNCD	Char	2	MIS Function Code 01	n/a
MITRTCD	Char	1	MIS Route Code 3	n/a
MITMSGLN	Hex	2	MIS Message Length Short int	n/a
MITVER	Char	6	MIS Version V1R3M0	n/a
MITSTATC	Char	3	MIS Stat Category AUX=TLR	n/a
Note: The following fields are the self defining data fields of the MIS record.				
MITWRBT	Char	26	WRB Timestamp MIS Timestamp	AR15
MITUOWT	Char	26	UOW Timestamp MIS Timestamp	AD06
MITAPID	Char	3	Product Code DKN	A903
MITTSKI	Char	5	Task ID SMMIS	A904
MITEVCD	Char	4	MIS Event Code 030K - TLR Create 031K - TLR Delete 032K - TLR Close 033K - TLR Free	A701

DKNSMSTU—DKNSMMIS Map for the MIS UOW Record

This record layout contains addresses used by DKNSMMIS to map the MIS UOW record.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMSTU)

Figure A-15 contains Assembler H names.

Figure A-15 (Page 1 of 3). DKNSMSTU–DKNSMMIS Map for the MIS UOW Record

Label	Type	Length	Description	MIS Field Code
Note: The following fields are the header portion of the self-defining MIS record.				
MISRECID	Char	3	MIS Record ID 010 - UOW Rec	n/a
MISPGMNM	Char	8	MIS Program Name DKNSMMIS	n/a

Figure A-15 (Page 2 of 3). DKNSMSTU–DKNSMMIS Map for the MIS UOW Record

Label	Type	Length	Description	MIS Field Code
MISFUNCD	Char	2	MIS Function Code 01	n/a
MISRTCD	Char	1	MIS Route Code 3	n/a
MISMSGLN	Hex	2	MIS Message Length Short int	n/a
MISVER	Char	6	MIS Version V1R3M0	n/a
MISSTATC	Char	3	MIS Statistics Category AUV=UOW	n/a
Note: The following fields are the self-defining data fields of the MIS record.				
Note: This data is the Enhanced System Manager MIS record that defines the data portion of the MIS Self-Defining Record for UOWs.				
MISCYCD	Char	10	Cycle Date CCYY-MM-DD	A201
MISCYCL	Char	2	Cycle Number 0–9, A–L	A202
MISUWID	Char	15	UOW ID	AD02
MISUWTS	Char	26	UOW Time Stamp MIS Timestamp	AD06
MISSORT	Char	3	Sort Pattern 000 - 999	AG05
MISSTNM	Char	24	String Name	AG08
MISUWST	Char	1	UOW Status R or D	AG15
MISTGRP	Char	4	Tracer Group 0001 - 9999	AG16
MISCLAS	Char	3	UOW Class	AG17
MISGRP	Char	3	Group	AG18
MISPARE	Char	15	Parent UOW UOW ID	AG21
MISCREA	Char	8	Creating Task	AG22
MISDELT	Char	1	Delete Type S or H	AG24
MISSRTR	Char	2	Sorter Number 00 - 99	AG25
MISENDP	Char	8	Endpoint	AG27
MISBANK	Char	3	Bank Number	AG28
MISAPID	Char	3	Application ID DKN	A903
MISTSKI	Char	5	Task ID SMMIS	A904
MISCDTTM	Char	26	Stat Start Timestamp MIS Timestamp	AC07
MISEDTTM	Char	26	Stat End Timestamp MIS Timestamp	AC10
MISEVCD	Char	4	MIS Event Code 010K - UOW Add 011K - UOW Update 012K - UOW Delete	A701
MISICNT	Char	9	Item Count	2500

Figure A-15 (Page 3 of 3). DKNSMSTU–DKNSMMIS Map for the MIS UOW Record

Label	Type	Length	Description	MIS Field Code
MISIAMT	Char	15	Item Amount	2501

DKNSMSTW—DKNSMMIS Map for the MIS WRB Record

This record layout contains addresses used by DKNSMMIS to map the MIS WRB record.

Refer to the following data set members for language bindings:

Assembler H *ESM.V01R01*.SDKNSRC1 for member (DKNSMSTW)

Figure A-16 contains Assembler H names.

Figure A-16 (Page 1 of 2). DKNSMSTW–DKNSMMIS Map for the MIS WRB Record

Label	Type	Length	Description	MIS Field Code
Note: The following fields are the header portion of the self-defining MIS record.				
MIWRECID	Char	3	MIS Record ID 020 - WRB Rec	n/a
MIWPGMNM	Char	8	MIS Program Name DKNSMMIS	n/a
MIWFUNCD	Char	2	MIS Function Code 01	n/a
MIWRTCD	Char	1	MIS Route Code 3	n/a
MIWMSGLN	Hex	2	MIS Message Length Short int	n/a
MIWVER	Char	6	MIS Version V1R3M0	n/a
MIWSTATC	Char	3	MIS Stat Category AUT=WRB	n/a
Note: The following fields are the self-defining data fields of the MIS record.				
MIWCYCD	Char	10	Cycle Date CCYY-MM-DD	A201
MIWCYCD	Char	10	Cycle Date CCYY-MM-DD	A201
MIWCYCL	Char	2	Cycle Number 0–9, A–L	A202
MIWTSKN	Char	8	Task Name	AR02
MIWTSTA	Char	1	Task Status P, R, D	AR03
MIWSCC	Char	2	System Comp Code	AR04
MIWUCC	Char	2	User Comp Code	AR05
MIWSDTTM	Char	26	Task Start Timestamp MIS Timestamp	AR06
MIWCDTTM	Char	26	Task End Timestamp MIS Timestamp	AR07
MIWTPRI	Char	1	Task Priority	AR11

Figure A-16 (Page 2 of 2). DKNSMSTW–DKNSMMIS Map for the MIS WRB Record

Label	Type	Length	Description	MIS Field Code
MIWWRBT	Char	26	WRB Timestamp Timestamp	AR15
MIWTSKP	Char	2	Task Profile #	AR09
MIWTDES	Char	15	Task Prof Description	AR10
MIWWSPL	Char	2	WRB Split Indicator	AR14
MIWRUNT	Char	8	Run Type Y or N • Byte 1 - Auto Start • Byte 2 - Manual Start • Byte 3 - Force • Byte 4 - Hold • Byte 5 - Normal • Byte 6 - Restart • Byte 7 - Rerun • Byte 8 - Reserved	AR12
MIWAPID	Char	3	Product Code DKN	A903
MIWTSKI	Char	5	Task ID SMMIS	A904
MIWCDTTM	Char	26	Stat Start Timestamp MIS Timestamp	AC07
MIWEDTTM	Char	26	STAT End Timestamp MIS Timestamp	AC10
MIWTRGP	Char	4	Tracer Group	AG16
MIWEVCD	Char	4	MIS Event Code 020K - WRB Creation 021K - WRB Status Change 022K - WRB Priority Change 023K - WRB Update	A701
MIWICNT	Char	9	Item Count Total	2502
MIWIAMT	Char	15	WRB Amount Total	2503
MIWUOWCT	Char	15	WRB UOW Count	2504

End of General-Use Programming Interface

Appendix B. Messages and Codes

This appendix provides a complete list of Enhanced System Manager messages and codes.

Note: All these messages have a common prefix of DKN. These three characters have been removed to help you find your specific message number easier.

AIT01 30001 *tttttttt* **Hiperspace Creation Error- RC=***xx* **REA=***yy*

Explanation: Enhanced System Manager was not able to get the necessary Hiperspace* area to continue initialization where:

tttttttt Module Name
xx Return Code
yy Reason Code

Severity: Severe error

User Response: Review the *xx* return code *zz* reason code and correct the condition that caused the failure. Restart CPCS.

AIT01 30002 No Hiperspace intervals are available for creation.

Explanation: Enhanced System Manager was not able to get the necessary Hiperspace area to continue initialization.

Severity: Severe error

User Response: Correct the condition that caused the failure. Restart CPCS.

AIT01 30003 *yyyyyyyy* **DIV Map Error - RC=***xx* **REA=***zz*

Explanation: Enhanced System Manager was not able to continue initialization, where:

xx Return Code
zz Reason Code
yyyyyyyy Module Name

Severity: Severe error

User Response: Review the *xx* return code *zz* reason code and correct the condition that caused the failure. Restart CPCS.

AIT02 00003 Tracer *xxxx* **was initialized for sort pattern** *nnn*

Explanation: A tracer initialization occurred for the sort pattern indicated.

Severity: Informational

Operator Response: None

AIT02 00009 *tttttttt* **ver** *vv* **Excluded for** *ssss(xxxx)*

Explanation: The task (*tttttttt*) version (*vv*) was excluded from the workflow for the string indicated, where:

xxxxxxxx
Is the task name that is excluded

vv Is the task profile version number

ssss Is the string name for the task that was excluded

xxxx Indicates whether the task was excluded by:

- The DWA user exit, shown by “User Exit”
- The DWA rule, shown by “DWA Rule”

Severity: Informational

Operator Response: None

AIT02 00010 *xxxxxxxx* **ver** *yy* **replaced by** *rrrrrrrr vv eeee-p-p1-p2-p3-p4-t-sss***.**

Explanation: A Dynamic Workflow Alteration (DWA) rule caused the task to be replaced by another task for the UOW indicated, where:

xxxxxxxx
The tsk that is being replaced

yy The task profile task version number

rrrrrrrr The replacement task

vv The replacement task profile version number

eeee-p-p1-p2-p3-p4-t-sss
The string name that had the task replaced

Severity: Informational

Operator Response: None

AIT02 00013 *tttttttt* **ver** *vv***: Start=***ssss***, Priority=***pp***.**

Explanation: The task indicated was started. The message indicates if the task was ESM-autostarted or not, and what the priority was for the task.

tttttttt The name of the task started

vv The ESM task profile version number

ssss The type of start:

AUTOSTART Autostarted by ESM

MANUAL Not autostarted by ESM

pp The priority of the task

Severity: Informational

Operator Response: None

AIT02 00020 *xxxx* **Replaced** *task1* **ver** *v1* **for** *ssss*

Explanation: The task *task1/v1* was replaced with another task and/or version for the workflow for the string indicated.

Where:

xxxx Indicates whether the task was excluded by:

1. The DWA user exit, shown by "User Exit"
2. The DWA rule, shown by "DWA Rule"

task1 Is the task name that is replaced

v1 Is the task profile version number

ssss Is the string name for which the task was replaced

Severity: Informational

Operator Response: None

AIT02 10001 Task:*yyyyyyyy* **Version:***xx* **was not found.**

Explanation: Enhanced System Manager was not able to locate the necessary task to continue initialization where:

yyyyyyyy Module Name
xx Version

Severity: Warning

User Response: Review the *yyyyyyyy* task name *xx* version and correct the condition that caused the failure.

AIT02 10002 Duplicate Tracer Initialization for *xxxx***.**

Explanation: A request to generate a UOW for the prime-pass I-string for entry *xxxx* was encountered and aborted since this UOW has already been generated.

Severity: Warning

Operator Response: None

AIT02 30007 DKNPCTLI I/O Error. Tracer=*xxxx* **RC=***yyyy*

Explanation: ESM received an error from CPCS tracer group services, where:

xxxx Tracer being processed

yyyy

Return code from DKNPCTLI

Severity: Error

Operator Response: Notify the CPCS programmer.

Programmer Response: Using the DKNPCTLI return code, determine the problem with the tracer being processed.

AIT02 30008 Workflow Build Error. WFL=*xxxxxxxx* **Task=***yyyyyyyy* **Version=***zz*

Explanation: ESM was unable to build workflow information for a particular string, where:

xxxxxxxx Workflow record key

yyyyyyyy Task profile task name

zz Task profile version

Severity: Error

Operator Response: Notify the CPCS supervisor.

Supervisor Response: Using the message information, determine the workflow record problem.

AIT02 30011 Tasks for UOW *eeee-p-p1-p2-p3-p4-t-sss* **not created. Recursion in workflow rules**

Explanation: The task for the UOW indicated was not created. Recursion has occurred in the workflow rules. For example, Rule 1 replaces Task 1 with Task 2. Rule 2 replaces Task 2 with Task 1. This causes a loop, where ESM tries to continuously replace each task with the other, where:

eeee-p-p1-p2-p3-p4-t-sss
The string name that had the task replaced

Severity: Severe error

Programmer Response: Fix the DWA rules to eliminate the recursion.

AIT02 30012 Last rule: *xxxxxxxx* **ver** *yy***, Replace task** *rrrrrrrr* **ver** *vv***.**

Explanation: This message follows AIT0230011. It contains the task names in the last DWA rule read in a recursive DWA rule loop, where:

xxxxxxxx
The task that is being replaced

yy The task profile task version number

rrrrrrrr The replacement task

vv The replacement task profile version number

Severity: Severe error

Programmer Response: Fix the DWA rules to eliminate the recursion.

AIT02 30014 Unknown action code (*cc***) returned by the DWA user exit for** *ssss, ttttttt/vv*

Explanation: The action code passed back from the user exit is not a supported value, where:

cc Is the action code returned from the user exit

ssss Is the string name that had the problem

tttttttt Is the task name from the DWA rule

vv Is the task profile version number

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

AIT02 30015 The *task1* Replace task name/version number is missing

Explanation: The action requested from the DWA user exit said to replace the task, but a valid task name and/or version number was not specified by the user exit, where:

task1 Is the task name that is replaced

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

AIT02 30016 The replace task *task1* from the DWA user exit is not ESM startable or trackable

Explanation: The DWA user exit specified a replacement task but the replacement task is not startable or trackable by ESM, where:

task1 Is the replacement task name

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed, or have the DKNBLDL modified.

AIT02 30017 The replace task *task1* from the DWA user exit is not in the CPCS DKNBLDL or the ESM submit JCL library

Explanation: The DWA user exit specified a replacement task but the replacement task is not in the CPCS BLDL table, nor is it in the ESM Batch Job library.

task1 Is the replacement task name

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed, have the DKNBLDL modified, or have the batch Job JCL fixed.

AIT02 30018 No user exit is available for dynamic workflow processing

Explanation: The DWA user exit specified in the ESM profile can no longer be found in your ESM system.

Severity: Severe error

Operator Response: Contact your ESM programmer to fix either the user exit or the ESM profile.

Programmer Response: If the ESM profile is modified, or if the user exit is modified, a CPCS restart is needed.

AIT02 30019 An error occurred opening the submit JCL file

Explanation: An error occurred opening the submit JCL file.

Severity: Severe error

Operator Response: Contact your ESM programmer.

Programmer Response: Check the CPCS and ESM logs to determine the cause of the error.

AIT02 30021 Invalid return code from DWA User Exit

Explanation: The DWA user exit sent back an invalid return code.

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

AIT02 30022 Entry Init Aborted for *ssss*

Explanation: ESM encountered problems while building the workflow for the UOW. The WRBs for the workflow have not been set up completely. The problem is most likely caused by:

1. Missing task profile specified in a workflow
2. Invalid DWA record
3. Invalid DWA user exit

Where, *ssss* is the string name for the UOW that did not get the full workflow set up.

Severity: Severe error

Operator Response: Check the ESM log and the scroll log for messages that indicate where the error is. Fix the DWA and/or task profile/workflow errors. Have your programming staff fix user exit errors.

AIT20 Error allocating DKNSMHSA for *xxxxxxxx*

Explanation: An error occurred while allocating storage required to map a dataspace.

xxxxxxxx indicates the type of dataspace allocated for storage.

Severity: Severe error

Operator Response: Notify the CPCS programmer or supervisor.

Supervisor Response: You get this message after a change was made to the tracer group data set size. Other factors can also cause this condition to occur.

To fix this condition, run the DKNSMAL2 JCL to reallocate the ESM VSAM data sets. You must do a warm start with the ESM INIT parameter turned on.

AIT20 Error restoring DKNSMHSA data for *xxxxxxxx*

Explanation: An error occurred while restoring the storage for the data in the dataspace interval tables.

xxxxxxxx indicates the type of dataspace being restored in the tables.

Severity: Severe error

Operator Response: Notify the CPCS programmer or supervisor.

Supervisor Response: To fix this condition, run the DKNSMAL2 JCL to reallocate the ESM VSAM data sets. You must do a warm start with the ESM INIT parameter turned on.

AIT20 Error restoring DKNSMHSA for *xxxxxxxx*

Explanation: An error occurred while restoring the dataspace interval tables on a restart or warm start.

xxxxxxxx indicates the type of dataspace being restored in the tables.

Severity: Severe error

Operator Response: Notify the CPCS programmer or supervisor.

Supervisor Response: To fix this condition, run the DKNSMAL2 JCL to reallocate the ESM VSAM data sets. You must do a warm start with the ESM INIT parameter turned on.

AIT25 00001 Task=*xxxxxxxx* **Entry=***nnnn* **cancelled during startup.**

Explanation: The indicated task was active when CPCS ended previously. During a CPCS warm start or restart, the task was moved from Active status in the Ready queue to Completed status on the Complete queue. The system completion code is set to 122 by ESM to indicate the task was canceled by ESM.

Note: ESM did not actually stop the task. ESM just marked that the task had been active and that it is no longer active, where:

xxxxxxxx The name of the task that ESM marked as cancelled

nnnn The entry number for which the task was run

Severity: Informational

Operator Response: Check to see if work has processed correctly for the task. If needed, restart the task from the SMOF Complete queue.

AIT25 00005 Task=*xxxxxxxx* **Entry=***nnnn* **Zapped to (C)omplete status.**

Explanation: A task has been zapped to complete status, where:

xxxxxxxx The task name

nnnn The task entry number

Severity: Informational

Operator Response: None

AIT25 00006 APPLWRB created; *xxxxxxxx, yyyyyyyy.*

Explanation: ESM created the APPLWRB for the task and string indicated, where:

xxxxxxxx Is the name of the task that requested the APPLWRB

yyyyyyyy Is the string name of the first UOW associated with the APPLWRB

Severity: Informational

Operator Response: None

AIT25 00007 Non-zero RC for *xxxxxxxx, yyyyyyyy.*

Explanation: ESM encountered a non-zero system completion code and/or non-zero user completion codes, and the Task Completion user exit indicated subsequent tasks should be started anyway, where:

xxxxxxxx Is the name of the task that ended with non-zero return codes

yyyyyyyy Is the string name of the UOW associated with the task. In some instances of an abnormal termination of a task, the string name may not be available, and the message may say “for unknown string name” in the message.

Severity: Informational

Operator Response: None

AIT25 00008 Tasks started by User Exit.

Explanation: This message is a continuation of AIT25 00007. This message logs the fact that the user exit requested tasks be started after a task that ended unsuccessfully. Depending on the workflow, no tasks may actually be started.

Severity: Informational

Operator Response: None

AIT25 00009 Task Completion User Exit disabled by User Exit RC.

Explanation: This message indicates that the ESM Task Completion user exit has been disabled because the return code from the user exit was 8.

Severity: Informational

Operator Response: None.

AIT25 10012 Task Profile *tttt* version *vv* truncated.

Explanation: The user data that was expanded from the symbolic parameters was longer than could fit in the field. The data was truncated and passed to the task being started, where:

tttt The name of the task in the task profile record

vv The task version number of the record in error

Severity: Warning

Operator Response: Check the task profile record and modify the user data area so the correct start parameters are coded.

AIT25 20010 Task Profile Read error for *tttt* version *vv*.

Explanation: An error was encountered while reading a task profile record, where:

tttt The name of the task in the task profile record

vv The task version number of the record in error

Severity: Error

Operator Response: Verify that the task profile record exists for the task and version noted in the message. If they do exist, check the CPCS JOB to see if reasons for the read error are noted there.

AIT25 20011 Invalid parm *pppp* in task profile *tttt* ver *vv* User Data.

Explanation: An error was encountered while parsing the user data in the task profile record, where:

pppp The parameter in error

tttt The name of the task in the task profile record

vv The task version number of the record in error

Severity: Error

Operator Response: Check the task profile record and modify the user data area so that invalid symbolic parameters are not coded there.

AIT25 20013 *uuuuuuuu*

Explanation: This is the user data that is in error. This message follows another message that indicates the cause of the error, where:

uuuuuuuu Is the user data that is expanded from symbolic parameters.

Severity: Error

Operator Response: Identify the error cause from the previous message and fix the task profile user data.

AIT25 30002 File OPEN Error. RC=*rrrr*. REA=*xxxx*.

Explanation: A VSAM error occurred while opening the ESM control file DKNSMBJC during a CPCS cold start, where:

rrrr The return code from the VSAM Open

xxxx The reason code from the VSAM Open

Severity: Severe

Operator Response: Notify the CPCS programmer or supervisor if problems occur for MVS batch jobs started by ESM.

AIT25 30003 VSAM Macro Error. Function=*ffff*. CB=*cccc*. RC=*rrrr* REA=*xxxx*.

Explanation: A VSAM error occurred while processing a VSAM macro during the Open of the ESM control file DKNSMBJC and during a CPCS cold start, where:

ffff The VSAM function ESM was attempting to use

cccc The VSAM control block with which ESM was working; typically, this is an ACB, or an RPL.

rrrr The return code from the VSAM Open

xxxx The reason code from the VSAM Open

Severity: Severe

Operator Response: Notify the CPCS programmer or supervisor if problems occur for MVS batch jobs started by ESM.

AIT25 30004 Duplicate Task Start Requested Task=*xxxxxxxx* Entry=*yyyy*

Explanation: Enhanced System Manager attempted to start a task that it had already started. ESM did not restart the task. *xxxxxxxx* is the task name, *yyyy* is the entry name.

Severity: Severe Error

User Response: Notify the CPCS programmer.

ESMA 00001 Static Parms -> *xxxxxxxxxxxxxxxxxxxxxxxx*

Explanation: The ESM sample assembler routine is displaying the first 24 characters of the static parameter that was passed to it by ESM.

Severity: Informational

Operator Response: None

ESMA 00002 Processed UOW -> *xxxxxxxxxxxxxxxxxxxxxxxx*

Explanation: The ESM sample assembler routine is displaying a Unit of Work's string name that was passed to it by ESM.

Severity: Informational

Operator Response: None

ESMC 00001 Static Parms -> *xxxxxxxxxxxxxxxxxxxxxxxx*

Explanation: The ESM sample COBOL routine is displaying the first 24 characters of the static parameter that was passed to it by ESM.

Severity: Informational

Operator Response: None

ESMC 00002 Processed UOW -> *xxxxxxxxxxxxxxxxxxxxxxxx*

Explanation: The ESM sample assembler routine is displaying a Unit of Work's string name that was passed to it by ESM.

Severity: Informational

Operator Response: None

SMAIX 30001 Invalid input in user field(s) in user exit.

Explanation: An error occurred during a request to GETMAIN space for DKNSMAIX to use.

Severity: Severe Error

User Response: Use correct input data.

SMAIX 30002 RC=*xx* from user exit. Data was not used.

Explanation: User exit returned *xx*, where:

xx Return Code

Severity: Severe error

User Response: Review the *xx* return code and correct the condition that caused the failure.

SMAIX 30003 No UOW generated for *ssssssss*, RSCB*xxxx* not set.

Explanation: A UOW was not generated for a string because of an RSCB setting set by MICR, where:

ssssssss
Is the string name

RSCBxxxx
Is the field in the RSCB that caused the UOW not to be generated

Severity: Severe error

User Response: Manually generate a UOW from the SMOF screens for the string. Additional diagnostics are available in the ESMLOG. Notify the supervisor, and have the ESMLOG saved for IBM.

SMAIX 30004 UOW INIT Failed for *ssssssss*, RC=*rrrr*, REAS=*xxxx*.

Explanation: A UOW was not generated for a string because of an RSCB setting set by MICR, where:

ssssssss
Is the string name

rrrr Is the return code from the UOW INIT

xxxx Is the reason code from the UOW INIT

Severity: Severe error

User Response: If the UOW does not exist, manually generate a UOW from the SMOF screens.

SMBJW 00005 Job *jobname* (*job#*) Completed Successfully. :SCC=*xxx* UCC=*xxx* E=*xxxx* C=*xx*

Explanation: The batch job indicated it had completed successfully. The system completion code (SCC), the user completion code (UCC), the entry (E), and the cycle (C) are provided in the message.

Severity: Informational

Operator Response: None

SMCUI 30001 ESM missed time events since hh:mm. Catching up now.

Explanation: ESM time interval processing was disrupted for an unknown reason. The situation that caused the disruption has been remedied, and ESM has attempted to get time intervals working properly again.

Where:

hh:mm Is the time that ESM last processed properly

Severity: Error

Operator Response: Verify whether tasks have run as expected. The times the tasks ran will be late, but all tasks should have run and should be scheduled to run at the next interval. If this is not the case, contact your supervisor or programmer.

Programmer Response: Check the job logs to see what occurred that caused the system to stop working temporarily. Typically, this could be something like a backup job, or no CPU cycles to the CPCS job. If tasks are not being started on the intervals, a warm start is required to get them started again.

SMC0 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMC0 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMC0 10008 No features are currently in the CPCS Feature Table.

Explanation: No entries exist in the CPCS Feature Table.

Severity: Warning

Operator Response: Try again later.

SMC0 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMC0 20004 *xxxxxxxx* **attempted unauthorized Endprime.**

Explanation: Operator *xxxxxxxx* has attempted to do the Endprime function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMC0 20005 *xxxxxxxx* **attempted unauthorized UOW Generate.**

Explanation: Operator *xxxxxxxx* has attempted to do the UOW Generate function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMC0 20006 *xxxxxxxx* **attempted unauthorized Event Mgmt.**

Explanation: Operator *xxxxxxxx* has attempted an Event Management function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMC0 20007 *xxxxxxxx* **attempted unauthorized Diagnostics.**

Explanation: Operator *xxxxxxxx* has attempted to use a diagnostic function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this

function, you must be added to the RACF security file for this function.

SMC1 00001 ENDPRIME activated for Cycle *cc* on xx/xx/xx.

Explanation: ENDPRIME was activated for Cycle *nn* on ss/ss/ss, where:

cc	Cycle Number
xx/xx/xx	Date

Severity: Informational

User Response: None.

SMC1 00002 ENDPRIME deactivated for Cycle *cc* on xx/xx/xx.

Explanation: ENDPRIME was deactivated for Cycle *cc* on xx/xx/xx, where:

cc	Cycle Number
xx/xx/xx	Date

Severity: Informational

User Response: None.

SMC1 00003 ENDPRIME successfully updated for Cycle *cc*

Explanation: DKNSMC1 successfully updated the end-prime update module. *xx* is the cycle number.

Severity: Informational

User Response: None

SMC1 00005 Invalid. Cycle not found.

Explanation: DKNSMC1 did not find the requested cycle. The valid values are 01 through 99.

Severity: Informational

User Response: Enter a valid cycle number.

SMC1 00006 Invalid cycle date request.

Explanation: The cycle date is not valid.

Severity: Informational

User Response: Enter a valid date.

SMC1 00008 Scroll limit has been exceeded. Please try again.

Explanation: You have scrolled to the top of the page.

Severity: Informational

User Response: Enter a valid request.

SMC1 00015 ENDPRIME for Cycle *cc* is active. Run ECYC to deactivate.

Explanation: When end prime is active, you cannot deactivate it. *xx* is the cycle number.

Severity: Informational

User Response: Run the ECYC task to reset end prime.

SMC1 00016 *yyyy* activated ENDPRIME for Cycle *xx* Old Status=*X* New=*Y*

Explanation: The end prime was activated where:

yyyy	Operator
xx	Cycle Number
X	Endprime status before the change
Y	Endprime status after the change

Severity: Informational

User Response: None

SMC1 00017 *yyyy* deactivated ENDPRIME for Cycle *xx* Old Status=*X* New=*Y*

Explanation: The end prime was deactivated where:

yyyy	Operator
xx	Cycle Number
X	Endprime status before the change
Y	Endprime status after the change

Severity: Informational

User Response: None

SMC1 10009 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMC1 10014 ENDPRIME cannot be changed while Cycle *xx* is deactivated.

Explanation: You have attempted to activate ENDPRIME on a cycle that is deactivated.

Severity: Warning

Operator Response: Activate the Cycle retry.

SMC1 20004 Invalid cycle code was entered. Please try again.

Explanation: The cycle code that you entered is not valid. The valid values are 01 through 99.

Severity: Error

User Response: Enter a valid cycle number.

SMC1 20007 Invalid request. Please try again.

Explanation: The request is not valid.

Severity: Error

User Response: Enter a valid request.

SMC1 20010 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Error

Operator Response: Type in a valid option code.

SMC2 00010 No strings meet search criteria.

Explanation: No strings on the Mass Data Set meet the search criteria that you entered, plus the restrictions needed for Enhanced System Manager to generate a UOW. The restrictions include: valid tracer and no ... current UOW.

Severity: Informational

Operator Response: Try with a different set of search criteria or, if you know the string name, type it in on the DKNSMC2 screen.

SMC2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMC2 10011 Cycle must be specified.

Explanation: If you choose to type in search criteria for the Mass Data Set, you MUST specify the cycle as a minimum.

Severity: Warning

Operator Response: Type in the cycle.

SMC2 20002 Invalid input. Correct highlighted field.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Error

Operator Response: Type over highlighted field or fields with correct data.

SMC2 20003 Tracer/Entry does not exist.

Explanation: The tracer associated with this string is not on the Tracer Data Set.

Severity: Error

Operator Response: Recover string with Tracer Data Set update on.

SMC2 20004 UOW has already been generated.

Explanation: The UOW associated with this string has already been generated.

Severity: Error

Operator Response: A UOW already exists; do not generate another one.

SMC2 20005 Terminal I/O Error. Please try again.

Explanation: DKNSMC2 has attempted to call another screen type module, but a screen I/O error has occurred.

Severity: Error

Operator Response: Try again. If the same error occurs, tell your CPCS supervisor or CPCS programmer.

SMC2 20006 Storage obtain failed. Please try again.

Explanation: DKNSMC2 has called DKNSMC3. DKNSMC3 attempted to obtain storage in order to store the MDS string list, but the STORAGE ... OBTAIN failed.

Severity: Error

Operator Response: Try again. If the same error occurs, tell your CPCS supervisor or CPCS programmer. If you know the string name, you can type it in on the DKNSMC2 screen. This bypasses DKNSMC3.

SMC2 20007 Mass Data Set initialization failed.

Explanation: Either DKNSMC2 or DKNSMC3 has attempted to initialize the Mass Data Set, but has received a bad return code from DKNMASS.

Severity: Error

Operator Response: Try again. If the error persists, tell your CPCS supervisor or CPCS programmer.

SMC2 20008 Mass Data Set read error.

Explanation: DKNSMC2 has called DKNSMC3. DKNSMC3 received a bad return code from DKNMASS while attempting to search the Mass Data Set Directory.

Severity: Error.

Operator Response: Try again. If the error persists, tell your CPCS supervisor or CPCS programmer. If you know the string name, you can enter it on the DKNSMC2 screen and bypass DKNSMC3.

SMC2 20009 String work area is full.

Explanation: DKNSMC2 has called DKNSMC3. DKNSMC3 has found more strings on the Mass Data Set than it has room to store.

Severity: Error

Operator Response: Tell your CPCS supervisor or CPCS programmer. Increasing the size of the string work area requires a service call. If you know the string name, you can enter it on the DKNSMC2 screen and bypass DKNSMC3.

SMC2 20012 String is not on the Mass Data Set.

Explanation: You have typed in a string that is not on the Mass Data Set.

Severity: Error

Operator Response: You may type in a different string, use search criteria that enables you to see what strings are available or recover the string that you need to the Mass Data Set.

SMC2 20013 Mass Data Set I/O error.

Explanation: DKNSMC2 has called DKNMASS, which returned an 8 in ZARETCD. This indicates an I/O error while attempting to read or write to the Mass Data Set.

Severity: Error

Operator Response: Try again. If the error persists, tell your CPCS supervisor or CPCS programmer.

SMC3 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMC3 00006 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMC3 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMC3 10007 Select one string at a time.

Explanation: You have attempted to select more than one string. Only one at a time is permitted.

Severity: Warning

Operator Response: Select only one string. If you need more, you must first process the first string and come back to DKNSMC3 to select another.

SMC3 20002 Invalid input. Correct highlighted field.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Error

Operator Response: Type over highlighted field or fields with correct data.

SMC3 20003 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Error

Operator Response: Type in a valid option code.

SMC3 20005 Terminal I/O error. Please try again.

Explanation: DKNSMC3 has attempted to call another screen type module, but a screen I/O error has occurred.

Severity: Error

Operator Response: Try again. If the same error occurs, tell your CPCS supervisor or CPCS programmer.

SMC4 00005 UOW Generate submitted.

Explanation: You have requested to generate a UOW for a string, and the request was successfully completed.

Severity: Informational

Operator Response: None

SMC4 00015 Press ENTER to generate the UOW, or press PF3 to END.

Explanation: DKNSMC4 is allowing you to be sure that generating the UOW with the parameters entered is what you want to do.

Severity: Informational

Operator Response: If you are sure you want the UOW as it is, press ENTER. If you have made a mistake, press PF3.

SMC4 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMC4 10017 UOW Generate request already submitted. Request Denied.

Explanation: The operator attempted to generate a UOW for the same string that was just processed.

Severity: Warning

Operator Response: None

SMC4 10018 This is the first page of data to display.

Explanation: This is the first page to display.

Severity: Informational

Operator Response: None.

SMC4 10019 This is the last page of data to display.

Explanation: No more pages exist to display.

Severity: Informational

Operator Response: None.

SMC4 10020 Enter the option for the database desired.

Explanation: You must enter the number that corresponds to the database you want to use.

Severity: Informational

Operator Response: Enter a numeric, 3-digit number of the database you want to use.

SMC4 20002 Invalid input. Correct highlighted field.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Error

Operator Response: Type over highlighted field or fields with correct data.

SMC4 20003 WORKFLOW does not exist for sort pattern and pph.

Explanation: In order to generate a UOW, you must have a valid WORKFLOW available so that Enhanced System Manager knows which tasks should be started for the UOW. The WORKFLOW need not match in the fourth PPH for an R string. If no match is found for an R string, Enhanced System Manager uses the WORKFLOW that matches on sort pattern, pass, PPH1, PPH2, PPH3 and String Type with a '99' for PPH4.

Severity: Error

Operator Response: Generate a WORKFLOW for the string and try again.

SMC4 20004 Terminal I/O error. Please try again.

Explanation: DKNSMC4 has attempted to call another screen type module, but a screen I/O error has occurred.

Severity: Error

Operator Response: Try again. If the same error occurs, tell your CPCS supervisor or CPCS programmer.

SMC4 20006 String incomplete/Not on Mass Data Set. RC=3.

Explanation: DKNSMC4 has called DKNSMMDS, which has called DKNMASS. DKNMASS has returned a 3 in ZARETCD, indicating that it could not open the string you specified. The string is either not on the Mass Data Set, or is incomplete on the Mass Data Set.

Severity: Error

Operator Response: Recover the string again and retry.

SMC4 20007 Mass Data Set I/O error. Please try again. RC=8.

Explanation: DKNSMC4 has called DKNSMMDS, which has called DKNMASS. DKNMASS has returned an 8 in ZARETCD, which indicates that an I/O error while trying to access the Mass Data Set.

Severity: Error

Operator Response: Try again. If the error persists, tell your CPCS supervisor or CPCS programmer.

SMC4 20008 DKNMDCTL ended abnormally. RC=94.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNMASS has returned a 94 in ZARETCD indicating that DKNMDCTL did not end properly.

Severity: Error

Operator Response: Make sure that your new UOW has shown up by selecting Unit of Work Inquiry/Management from the main menu and choosing R for ready. Tell you CPCS supervisor or CPCS programmer.

SMC4 20009 Too many strings open concurrently. RC=1.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNSMMDS was attempting to open the string. DKNMASS has returned a 1 in ZARETCD, indicating that too many strings are open. See “Accessing the Mass Data Set” in the *CPCS Programming and Diagnostic Guide*.

Severity: Error

Operator Response: Tell your CPCS programmer.

SMC4 20010 Output string already exists. RC=2.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNMASS returned a 2 in ZARETCD. DKNSMMDS was attempting to open the string. See “Accessing the Mass Data Set” in the *CPCS Programming and Diagnostic Guide*.

Severity: Error

Operator Response: Tell your CPCS programmer.

SMC4 20011 String not open. Cannot close. RC=4.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNMASS returned a 4 in ZARETCD. DKNSMMDS was attempting to close the string. See “Accessing the Mass Data Set” in the *CPCS Programming and Diagnostic Guide*.

Severity: Error

Operator Response: Tell your CPCS programmer.

SMC4 20012 String already open by this task. RC=7.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNMASS returned a 7 in ZARETCD. DKNSMMDS was attempting to open the string. See “Accessing the Mass Data Set” in the *CPCS Programming and Diagnostic Guide*.

Severity: Error

Operator Response: Tell your CPCS programmer.

SMC4 20013 Mass Data Set parameters are invalid. RC=255.

Explanation: DKNSMC4 has called DKNSMMDS, which called DKNMASS. DKNMASS returned a 255 in ZARETCD, indicating that the parameters used to access the Mass Data Set are incorrect. See “Accessing the Mass Data Set” in the *CPCS Programming and Diagnostic Guide*.

Severity: Error

Operator Response: Tell your CPCS programmer.

SMC4 20016 Error opening WORKFLOW database.

Explanation: DKNSMC4 has attempted to open the Workflow database, but it has encountered an error.

Severity: Error

Operator Response: Try again. If the error persists, tell your CPCS programmer.

SMDSM 10005 *tttttttt* **Cancel,get UOWDS fail or string delete.**

Explanation: There was either a failure during a UOWDS GETNEXT that required the *tttttttt* to be canceled or the string associated with the TASK was determined to be deleted and the TASK was canceled (System 222).

Severity: Warning

Operator Response: See your CPCS supervisor and follow operational procedures.

SMDSM 10008 *ttttttt ddddddddddddddddd*
RR=*rrrrrrrrnnnnnnnn*

Explanation: There was an error during a UOWDS COMPLETE request that did not affect the creation of the output string.

ttttttt
The task involved in the failure.
ddddddddddddddddd
The input string involved in the failure.
rrrrrrrrnnnnnnnn
Macro return and reason codes

Severity: Warning

Operator Response: See your CPCS supervisor and follow operational procedures.

SMDSM 10009 *ssssssss* **RR=***rrrrrrrrnnnnnnnn*
WARMSTART warning

Explanation: There was an error during a request that did not immediately inhibit the system from continuing. However system resources, such as memory or dataspace, may be active but orphaned and an eventual CPCS WARMSTART will be required to alleviate the situation.

ssssssss
The subroutine involved in the failure.
rrrrrrrrnnnnnnnn
Macro return and reason codes

Severity: Warning

Operator Response: See your CPCS supervisor and follow operational procedures to schedule a CPCS WARMSTART.

SMDSM 20001 *bbbbbbbb fffffffff* **RR=***rrrrrrrrnnnnnnnn*

Explanation: A problem with data needed to process the failing API was detected. This is indicated with an RC=8 Rsn=4 for the API.

bbbbbbbb
The control block with the problem data.
fffffffff
The field with the problem data.
rrrrrrrrnnnnnnnn
API return and reason codes

Severity: Error

User Response: Consult the *Enhanced System Managers User's Guide* for the API with the problem. The control block and field can be used to compare to the expected field contents. Most failures are a result of erroneous data passed by the calling application, but some may be environmentally introduced. Correct the situation and retry the API request.

SMDSM 20004 *ssssssssS ddddddddddddddddd*
RR=*rrrrrrrrnnnnnnnn*

Explanation: The MVS Macro failed for the reason indicated in the RR field.

ssssssssS
MVS Macro with 'S', indicating the following macro action.
- O–Obtain
- R–Release
- C–Create
- D–Delete
- A–Add
- E–Extend

ddddddddddddddddd
Macro variable data where the following apply for each macro action.
- Obtain/Release–location table in code for 8 bytes (storage SP=6)
- DSPSERVC (Create)–JHQSPAN for 4 bytes
- ALESERVA (Add)–JHUSTOKN for 8 bytes
- DSPSERVD (Delete)–JHUSTOKN for 8 bytes
- ALESERVD (Delete)–JHUALET for 4 bytes
- DSPSERVE (Extend)–JHQSPAN for 4 bytes

rrrrrrrrnnnnnnnn
Macro return and reason codes

Severity: Error

User Response: Consult the *MVS/ESA Application Development Reference: Services for Assembler Language Programs* (GC28-1642) for details of problem and resolution.

SMDSM 20007 *ttttttt ddddddddddddddddd*
LC=*rrrrrrrrnnnnnnnn*

Explanation: There was an ABEND during a UOWDS Manager request.

ttttttt
The task involved in the ABEND
ddddddddddddddddd
The string involved in the ABEND
rrrrrrrrnnnnnnnn
The ABENDing location in the code (for support use)

Severity: Error

Operator Response: See your CPCS supervisor and follow operational procedures.

SMDSP 30001 *yyyyyyyy* **Dataspace Creation Error-**
RC=*xx* **REA=***zz*

Explanation: Enhanced System Manager was not able to get the necessary Dataspace* area to continue initialization where:

xx Return Code
zz Reason Code

yyyyyyyy Module Name

Severity: Severe error

User Response: Review the *xx* return code *zz* reason code and correct the condition that caused the failure. Restart CPCS.

SMDSP 30002 No Database intervals are available for creation.

Explanation: Enhanced System Manager was not able to get the necessary Dataspace area to store a database record. This error means that the Dataspace index table is full. The only way to free up space in this index table is to remove CPCS tracers from the tracer data set.

Severity: Severe Error

User Response: Remove unnecessary tracers from the CPCS tracer data set to allow ESM to free the dataspace index table intervals associated with those tracers and make them available for the new tracers being introduced into CPCS.

SMDSP 30003 *yyyyyyyy* **DIV Map Error - RC=***xx* **REA=***zz*

Explanation: Enhanced System Manager was not able to continue initialization, where:

xx Return Code
zz Reason Code
yyyyyyyy Module Name

Severity: Severe error

User Response: Review the *xx* return code *zz* reason code and correct the condition that caused the failure. Restart CPCS.

SMDSP 30004 *yyyyyyyy* **ALET Creation Error - RC=***xx* **REA=***zz*

Explanation: ESM was not able to create an ALET for a required MVS Dataspace, where:

xx Return Code
zz Reason Code
yyyyyyyy Module Name

Severity: Severe error

User Response: Review the *xx* return code *zz* reason code and correct the condition that caused the failure. Restart CPCS.

SMDSP 30005 DIV *xxxxxxxx* **Error. ESM Startup Failed - RC=***yyyy* **REA=***zzzz*

Explanation: A DIV macro error occurred during ESM startup for the reason indicated in the RC/REA fields.

xxxxxxxx The type of DIV macro being performed

yyyy The return code

zzzz The reason code

Severity: Severe error

User Response: Review the RC and REA codes and correct the error condition that caused the failure. Restart CPCS.

SMDS1 00003 *MDSssss dddddddddddddddddd***C***cccccccc***,** **E***eeeeeeee***,I***iiiiiiii***,T***tttttttt*

Explanation: The Mass Data Set function *MDSssss* for string *dddddddddddddddddd* was performed with the total records processed indicated in the field T*tttttttt*. If user exit DKNSMX04 is installed, the breakdown of it's involvement follows.

C*cccccccc*
The number of records identified by the exit as being modified.

E*eeeeeeee*
The number of records identified by the exit to exclude from processing.

I*iiiiiiii*
The number of records identified by the exit to insert into the process.

Severity: Informational

User Response: None, this message is routed to the ESM log only.

SMDS1 20001 *MDS-ssss dddddddddddddddddd* **RR=***rrrrrrrr00000000*

Explanation: The Mass Data Set I/O failed for the reason indicated in the RR field.

MDS-ssss
MDS function *ssss*

dddddddddddddddddd
String involved in the failing MDS function.

rrrrrrrr00000000
MDS ZA Return Codes in *rrrrrrrr*.

Severity: Error

User Response: Consult the *CPCS Programming and Diagnostic Guide* for details and resolution.

SMDS1 20002 *X0z-ssss dddddddddddddddddd* **RR=***rrrrrrrrnnnnnnnn*

Explanation: The exit/function *X0z-ssss* failed for the reason indicated in the RR field.

X0z-ssss
Enhanced System Manager Exit (where *z* completes name) for function *ssss*

dddddddddddddddddd
String involved in the failing Exit function.

rrrrrrrrnnnnnnnn
Exit Return Codes in *rrrrrrrr* and Reason codes in *nnnnnnnn*.

Severity: Error

User Response: Consult the your CPCS programmer.

SMDS1 20004 *ssssssssS ddddddddddddddddd* **RR=***rrrrrrrrnnnnnnnn*

Explanation: The MVS Macro failed for the reason indicated in the RR field.

ssssssssS
MVS Macro with 'S', indicating the following macro action.
- O–Obtain
- R–Release

ddddddddddddddddd
Macro variable data where the following apply for each macro action.
- Obtain/Release - location table in code for 8 bytes (storage SP=6)

rrrrrrrrnnnnnnnn
Macro Return/Reason Codes

Severity: Error

User Response: Consult the *MVS/ESA Application Development Reference: Services for Assembler Language Programs* (GC28-1642) for details of problem and resolution.

SMDS1 20006 *tttttttt ddddddddddddddddd* **RR=***rrrrrrrrnnnnnnnn*

Explanation: The UOWDS Manager function of System Manager was attempting to create a string for the requesting task. A failure occurred, as indicated in the return/reason codes, and was unable to complete the process.

tttttttt
Task involved during the failure.

ddddddddddddddddd
String involved during the failure.

rrrrrrrrnnnnnnnn
Return/Reason Codes.

Severity: Error

Operator Response: See your CPCS supervisor and follow operational procedures.

SMD0 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD0 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMD1 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMD1 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMD1 00007 Service Processor *nnnnnnnn* **is now HELD.**

Explanation: You have requested that a service processor's queue be held so that requests will not be processed. The HOLD request has ended successfully.

Severity: Informational

Operator Response: None

SMD1 00009 Service Processor *nnnnnnnn* **is already HELD.**

Explanation: You have requested that a service processor's queue be held so that requests will not be processed, but the Service Processor's queue is already HELD.

Severity: Informational

Operator Response: None

SMD1 00010 Service Processor *nnnnnnnn* **is not attached.**

Explanation: You have requested that a Service Processor be detached from Enhanced System Manager, but the Service Processor is already detached.

Severity: Informational

Operator Response: None

SMD1 00011 Service Processor *nnnnnnnn* was RELEASED.

Explanation: You have requested that a service processor's queue be released so that requests can be processed. The RELEASE request has ended successfully.

Severity: Informational

Operator Response: None

SMD1 00012 Service Processor *nnnnnnnn* is not HELD.

Explanation: You have requested that a Service Processor's queue be released so that requests can be processed, but the Service Processor is already released.

Severity: Informational

Operator Response: None

SMD1 00014 Service Processor *nnnnnnnn* was ATTACHED.

Explanation: You have requested that a Service Processor be attached by Enhanced System Manager. The ATTACH request has ended successfully.

Severity: Informational

Operator Response: None

SMD1 00016 Service Processor *nnnnnnnn* is already ATTACHED.

Explanation: You have requested that a Service Processor be attached by Enhanced System Manager, but the Service Processor is already attached.

Severity: Informational

Operator Response: None

SMD1 00017 Service Processor *nnnnnnnn* was DETACHED.

Explanation: You have requested that a Service Processor be detached by Enhanced System Manager. The DETACH request has ended successfully.

Severity: Informational

Operator Response: None

SMD1 00019 Service Processor *nnnnnnnn* is already DETACHED.

Explanation: You have requested that a Service Processor be detached by Enhanced System Manager, but the Service Processor is already detached.

Severity: Informational

Operator Response: None

SMD1 00020 Service Processor *nnnnnnnn* was REFRESHED.

Explanation: You have requested that a Service Processor be HELD, DETACHED, ATTACHED, and RELEASED by Enhanced System Manager, thus replacing the current executable module. The REFRESH request has ended successfully.

Severity: Informational

Operator Response: None

SMD1 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD1 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMD1 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number.

SMD1 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMD1 20008 Error attempting to HOLD *nnnnnnnn*.

Explanation: You have requested that a service processor's queue be held so that requests will not be processed. The HOLD request encountered an error.

Severity: Error

Operator Response: None

SMD1 20013 Error attempting to RELEASE Service Processor *nnnnnnnn*.

Explanation: You have requested that a Service Processor's queue be released so that requests can be processed but an error occurred during the RELEASE request.

Severity: Error

Operator Response: None

SMD1 20015 Error attempting to ATTACH Service Processor *nnnnnnnn*.

Explanation: You have requested that a Service Processor be attached by Enhanced System Manager, but an error occurred during the ATTACH request.

Severity: Error

Operator Response: None

SMD1 20018 Error attempting to DETACH Service Processor *nnnnnnnn*.

Explanation: You have requested that a Service Processor be detached by Enhanced System Manager, but an error occurred during the DETACH request.

Severity: Error

Operator Response: None

SMD2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD3 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMD3 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMD3 00007 No Database Anchor exists for display.

Explanation: You have requested to display a Database Anchor Control Block, but there is no such control block available.

Severity: Informational

Operator Response: None

SMD3 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD3 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMD3 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number

SMD3 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMD4 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD5 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD6 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMD6 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMD6 00007 No Database Anchor exists for display.

Explanation: You have requested to display a Database Anchor Control Block, but there is no such control block available.

Severity: Informational

Operator Response: None

SMD6 00008 No Database Interval exists for display.

Explanation: You have requested to display a Database Interval Control Block, but there is no such control block available.

Severity: Informational

Operator Response: None

SMD6 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD6 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMD6 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number

SMD6 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMD7 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD8 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMD9 00002 PDS Member xxxxxxxx **was found in each displayed data set.**

Explanation: The partitioned data set member selected on the previous menu was located in each of the displayed partitioned data sets.

Severity: Informational

Operator Response: None

SMD9 00003 PDS Member xxxxxxxx **was not found in any selected data set.**

Explanation: The partitioned data set member selected on the previous menu was not located in any partitioned data set specified on the previous menu.

Severity: Informational

Operator Response: None

SMD9 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SME1 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SME1 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SME1 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SME1 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SME1 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number

SME1 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SME2 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SME2 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SME2 00007 *yy* **is now subscribed to** *xx* **events.**

Explanation: The Service Processor *yy* is now notified of all *xx* events.

Severity: Informational

Operator Response: None

SME2 00008 *yy* **is no longer subscribed to** *xx* **events.**

Explanation: The Service Processor *yy* is no longer notified of *xx* events.

Severity: Informational

Operator Response: None

SME2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SME2 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SME2 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number

SME2 10008 *yy* **does not support** *xx* **event notification.**

Explanation: The service processor selected does not support ANY type of event notification.

Severity: Warning

Operator Response: Select the correct service processor

SME2 10010 *yy* **is not subscribed to** *xx* **events.**

Explanation: The service processor selected does not have any event subscriptions to be canceled.

Severity: Warning

Operator Response: Select the correct service processor

SME2 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMEST 10001 *xxxxxxxx* **Chain Error Repaired Recovery completed in ESTAE.**

Explanation: An error occurred in module *xxxxxxxx* when modifying the ESM chains. The ESTAE macro was used to attempt a recovery from the error condition.

Severity: Informational

Operator Response: Notify the CPCS Supervisor and/or CPCS Programmer.

Programmer Response: Check the ESMLOG, and CPCS logs to determine what happened.

SMEST 10002 Post Error for *xxxxxxxx***. Recovery completed in ESTAE.**

Explanation: An error occurred in module *xxxxxxxx* when Posting. The ESTAE macro was used to attempt a recovery from the error condition.

Severity: Informational

Operator Response: Notify the CPCS Supervisor and/or CPCS Programmer.

Programmer Response: Check the ESMLOG, and CPCS logs to determine what happened.

SMEST 10003 *xxxxxxxx* **Service Processor abended, will attempt to retry.**

Explanation: An error occurred in module *xxxxxxxx*. The ESTAE macro was used to attempt a recovery from the error condition. A retry will be attempted.

Severity: Informational

Operator Response: Notify the CPCS supervisor or CPCS programmer.

Programmer Response: Check the ESMLOG and CPCS logs to determine what happened.

SMEST 10004 *xxxxxxxx* **Service Processor abended, - Retry failed.**

Explanation: An error occurred in module *xxxxxxxx*. The ESTAE macro was used to attempt a recovery from the error condition. An attempt to retry the existing request failed.

Severity: Informational

Operator Response: Notify the CPCS supervisor or CPCS programmer.

Programmer Response: Check the ESMLOG and CPCS logs to determine what happened.

SMF0 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMF0 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMF0 00007 *yy* feature has been activated.

Explanation: The selected *yy* feature is now flagged as active in the CPCS Feature Table.

Severity: Informational

Operator Response: None

SMF0 00008 *yy* feature has been deactivated.

Explanation: The selected *yy* feature is no longer flagged as active in the CPCS Feature Table.

Severity: Informational

Operator Response: None

SMF0 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMF0 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMF0 10006 Page number must be numeric. Please try again.

Explanation: You have entered a non-numeric page number.

Severity: Warning

Operator Response: Enter a numeric page number

SMF0 10008 *yy* feature is already active.

Explanation: You have requested feature activation for a feature that is already flagged as active in the CPCS Feature Table.

Severity: Warning

Operator Response: Select the correct feature to activate

SMF0 10010 *yy* feature is already deactivated.

Explanation: You have requested feature deactivation for a feature that is not flagged as active in the CPCS Feature Table.

Severity: Warning

Operator Response: Select the correct feature to deactivate

SMF0 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMH0 00009 *xxxxxxxx* Task Suppression Rule. DELETION was Canceled.

Explanation: The deletion of a task suppression rule was canceled, where *xxxxxxxx* is the task name for the rule that was not deleted. The task suppression rule still exists.

Severity: Informational

Operator Response: None

SMH1 20020 Pocket numbers are invalid.

Explanation: The pocket numbers entered were not in the correct format.

Severity: Error

Operator Response: Re-enter the pocket numbers using valid pocket numbers.

SMH1 20021 String Type must be I, D, R, M, or E.

Explanation: The string type entered is not a valid string type.

Severity: Error

Operator Response: Re-enter the string type. The only string types that are valid are I, D, R, M, or E.

SMIDX 30001 *xxxxxxxx* **UOW Index Corrupted. WARM Start Required!**

Explanation: The ESM unit of work indices have been damaged.

Severity: Severe Error

Operator Response: CPCS should be shut down and restarted immediately.

SMIDX 30002 Internal Processing Error! Save ESM Log!

Explanation: An internal processing error has occurred, and important information has been dumped to the ESM log.

Severity: Severe error

Operator Response: The ESM log should be saved and delivered to IBM Support.

SMIDX 30003 UOW Id was reset from *PrevUowIdNo* **to** *NewUowIdNo***.**

Explanation: The Julian date portion of the Unit of Work (UOW) identification number has changed, and as a result, the sequence number on the new UOW id has been reset to “1’. *PrevUowIdNo* is the previous UOW id number, while *NewUowIdNo* is the new UOW id number.

Severity: Informational

Operator Response: None

SMIDX 30004 Chaining Error for *xxxxxxxx* **index. WARM start required.**

Explanation: An error occurred while chaining the UOW indices. The index being chained is *xxxxxxxx*.

Severity: Severe error

Operator Response: CPCS should be shut down and restarted immediately. The ESMLOG should be saved and delivered to IBM support.

SMIDX 30005 No room on *xxxxxxxx* **index for key** *nnnn***. WARM Start Required**

Explanation: An error occurred while working with the UOW indices. The index being chained is *xxxxxxxx*, and the key that does not fit is *nnnn*.

Severity: Severe error

Operator Response: CPCS should be shut down and restarted immediately. The ESMLOG should be saved and delivered to IBM support.

SMID2 30001 *xxxxxxxx* **UOW Index Corrupted. WARM Start Required!**

Explanation: The ESM UOW index for the index indicated has been corrupted, where *xxxxxxxx* is the name of the index that contains the error.

Severity: Severe error

Operator Response: CPCS should be shut down and restarted immediately. Set the ESM INDX parameter in the CPCS startup JCL to make sure ESM is indexed again.

SMID2 30002 UOW Error in *xxxxxxxx* **Index. Index Repaired.**

Explanation: An error occurred while reading a UOW from the UOW index for the index indicated, where *xxxxxxxx* is the name of the index that contains the error.

Severity: Severe error

Operator Response: ESM corrected the error. Save the ESMLOG for analysis by IBM.

SMI3 00013 No entries found for search parameters.

Explanation: No entries were found that meet the search criteria you entered.

Severity: Informational

Operator Response: Try again with a different set of search criteria.

SMI3 00014 Please enter at least one search criteria.

Explanation: You pressed enter without entering search criteria.

Severity: Informational

Operator Response: Type in at least one search criteria and press enter.

SMI3 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI3 10002 Invalid TASK NAME entered. Please try again.

Explanation: The TASK NAME that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid TASK NAME.

SMI3 10003 STATUS must be equal to R or D. Please try again.

Explanation: The status you entered is not R or D.

Severity: Warning

Operator Response: Enter either R or D. Press PF1 for HELP.

SMI3 10004 STRING must be in format EEEE-P-H1-H2-H3-H4-T-SSS.

Explanation: The string you entered is not in proper format.

Severity: Warning

Operator Response: Enter the string in proper format. Press PF1 for HELP.

SMI3 10005 ENTRY must be four digits. Please try again.

Explanation: The entry you entered is not four digits.

Severity: Warning

Operator Response: Enter a four-digit ENTRY. Press PF1 for HELP.

SMI3 10006 Conflicting ENTRY and STRING parameters. Please try again.

Explanation: The entry you entered did not match the string.

Severity: Warning

Operator Response: Enter ENTRY that matches STRING. Press PF1 for HELP.

SMI3 10007 TRACER must be four digits. Please try again.

Explanation: The TRACER that you entered is not four digits.

Severity: Warning

Operator Response: Enter a four-digit TRACER. Press PF1 for HELP.

SMI3 10008 BANK must be three digits. Please try again.

Explanation: The BANK that you entered is not three digits.

Severity: Warning

Operator Response: Enter a three-digit BANK Number. Press PF1 for HELP.

SMI3 10009 CYCLE number must be 0-9 or A-L. Please try again.

Explanation: The CYCLE that you entered is not 0-9 OR A-L.

Severity: Warning

Operator Response: Enter proper CYCLE. Press PF1 for HELP.

SMI3 10010 ENDPOINT must be eight digits. Please try again.

Explanation: The ENDPOINT that you entered is not eight digits.

Severity: Warning

Operator Response: Enter eight digit ENDPOINT. Press PF1 for HELP.

SMI3 10011 GROUP must be three digits. Please try again.

Explanation: The GROUP that you entered is not three digits.

Severity: Warning

Operator Response: Enter three digit GROUP. Press PF1 for HELP.

SMI3 10012 CLASS must be three digits. Please try again.

Explanation: The CLASS that you entered is not three digits.

Severity: Warning

Operator Response: Enter three digit CLASS. Press PF1 for HELP.

SMI4 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMI4 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMI4 00010 *xxxxxxxx* **has been started.**

Explanation: The task that you requested has been started.

Severity: Informational

Operator Response: None.

SMI4 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI4 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMI4 10006 Selected Unit of Work (UOW) is no longer available.

Explanation: The UOW you have selected is no longer available for processing.

Severity: Warning

Operator Response: Choose another UOW and retry.

SMI4 10007 Specified number is not numeric. Please try again.

Explanation: You typed in a page number which is not numeric.

Severity: Warning

Operator Response: None

SMI4 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMI4 20008 *xxxxxxxx* **is not eligible for Enhanced System Manager start.**

Explanation: *xxxxxxxx* can be any Application Task that is defined in the CPCS DKNBLDL module that is eligible to be Enhanced System Manager started (for example, DIST, LIST). If a task is Enhanced System Manager startable, the SMSTART=1 parameter must be specified in DKNBLDL for that task.

Severity: Error

Operator Response: You may either type in an Application Task that is defined in DKNBLDL and has SMSTART=1, or add the SMSTART=1 parameter to the task you want in DKNBLDL.

SMI4 20009 Deleted UOWs are not eligible for Enhanced System Manager start.

Explanation: You have attempted to start a task against a UOW that has been deleted.

Severity: Error

Operator Response: You may either choose another UOW to start a task against or generate a new UOW.

SMI4 20011 *xxxxxxxx* **attempted unauthorized UOW Edit.**

Explanation: Operator *xxxxxxxx*has attempted to do the UOW Edit function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMI4 20012 *xxxxxxxx* **attempted Enhanced System Manager Start of** *yyyyyyyy***.**

Explanation: Operator *xxxxxxxx* has attempted to start *yyyyyyyy*, but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this

function, you must be added to the RACF security file for this function.

SMI4 20013 Error during task start.

Explanation: An error occurred during the start of the requested task.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer.

SMI5 00002 Press ENTER to update or PF3 to cancel.

Explanation: Pressing ENTER updates the UOW. Pressing PF3 cancels the update.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press PF3 key if something is wrong and you wish to cancel.

SMI5 00003 Update successfully processed.

Explanation: You have requested an update of a UOW that has completed successfully.

Severity: Informational

Operator Response: None

SMI5 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI5 10004 Highlighted field(s) are in error. Please try again.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Warning

Operator Response: Type over highlighted field or fields with correct data.

SMI6 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI7 00002 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMI7 00003 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMI7 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI7 10004 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMI8 00004 *xxxxxxxx* **has been started.**

Explanation: The task that you requested has been started.

Severity: Informational

Operator Response: None

SMI8 00009 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMI8 00010 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMI8 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMI8 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMI8 10008 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric page number.

SMI8 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMI8 20005 Error during task start.

Explanation: DKNSMI8 has received a bad return code from DKNAIT27 in response to your request to start a task.

Severity: Error

Operator Response: None

SMI8 20006 *xxxxxxxx* **is not eligible for Enhanced System Manager start.**

Explanation: *xxxxxxxx* can be any Application Task that is defined in the CPCS DKNBLDL module that is eligible to be Enhanced System Manager started (for example. DIST, LIST). If a task is Enhanced System Manager startable, the SMSTART=1 parameter must be specified in DKNBLDL for that task.

Severity: Error

Operator Response: You may either type in an Application Task that is defined in DKNBLDL and has SMSTART=1, or add the SMSTART=1 parameter to the task you want in DKNBLDL.

SMI8 20007 Deleted UOWs are not eligible for Enhanced System Manager start.

Explanation: You have attempted to start a task against a UOW that has been deleted.

Severity: Error

Operator Response: You may either choose another UOW to start a task against or generate a new UOW.

SMI8 20011 *xxxxxxxx* **attempted unauthorized UOW Edit.**

Explanation: Operator *xxxxxxxx* has attempted to do the UOW Edit function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMI8 20012 *xxxxxxxx* **attempted SMGR Start of** *yyyyyyyy***.**

Explanation: Operator *xxxxxxxx* has attempted to start task *yyyyyyyy* but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMLOG 00001 Enhanced System Manager Log opened for *xx* **start.**

Explanation: The Enhanced System Manager Log was opened due to a *xx* (COLD or WARM) start.

Severity: Informational

User Response: None

SMLOG 00003 Enhanced System Manager Event = *xx*

Explanation: An event defined to Enhanced System Manager and subscribed to by the Enhanced System Manager Log Facility has occurred.

Severity: Informational

User Response: None

SMLOG 00004 Enhanced System Manager Log opened due to Service Processor *xx*

Explanation: The Enhanced System Manager Log was opened during a Service Processor refresh of the DKNSMLOG module.

Severity: Informational

User Response: None

SMLOG 00005 Field = *xx* **Length =** *yy*

Explanation: A field in the event record is being dumped. The field name is *xx* and the field length is *yy*

Severity: Informational

User Response: None

SMLOG 00006 ESM password verification was SUCCESSFUL

Explanation: The Enhanced System Manager password was verified.

Severity: Informational

Operator Response: None

SMLOG 00008 ESM has been started with an override password

Explanation: An override password is in use for ESM. You must obtain a valid customer password as soon as possible.

Severity: Warning

Operator Response: Contact IBM and provide the following information: PTF level, bank name, CPU model and serial numbers. If CPCS is running within a sysplex, the sysplex name is also required.

SMLOG 00009 CPU serial num = *ssss***, model num =** *mmmm*

Explanation: The diagnostic details within this message should be used when providing the CPU serial and model numbers to IBM for ESM password requests.

Severity: Informational

Operator Response: None

SMLOG 10007 ESM password verification FAILED

Explanation: The ESM password specified in your DKNPESM profile is invalid. ESM is unavailable until the correct ESM password is set and CPCS is restarted.

Severity: Warning

Operator Response: Contact IBM and provide the following information: PTF level, bank name, CPU model and serial numbers. If CPCS is running within a sysplex, the sysplex name is also required.

SMMIS 00001 ESM Profile: MIS=YES. Statistics will be sent from DKNSMMIS.

Explanation: The ESM profile specified MIS=YES. The MIS statistics will be generated for ESM.

Severity: Informational

Operator Response: None

SMMIS 10001 ELRMISTB is not loaded. DKNSMMIS terminated.

Explanation: The MIS interface module was not loaded successfully. DKNSMMIS does not send any statistics to MIS.

Severity: Informational

User Response: Notify the CPCS supervisor.

SMMIS 10002 Storage Obtain error. DKNSMMIS terminated.

Explanation: Storage could not be obtained for the DKNSMMIS module. DKNSMMIS does not send any statistics to MIS.

Severity: Informational

User Response: Notify the CPCS supervisor.

SMNDX 00001 Previous system ended abnormally. ESM indices rebuilt.

Explanation: The ESM unit of work or task indices may have been damaged as a result of the previous system's abnormal termination. Therefore, ESM has reconstructed these indices automatically during the CPCS restart.

Severity: Informational

Operator Response: None

SMNDX 00002 Index corruption detected. ESM indices rebuilt.

Explanation: ESM detected index corruption during the previous CPCS job's processing. Therefore, ESM has reconstructed these indices automatically during the CPCS restart.

Severity: Informational

Operator Response: None.

SMNDX 00003 INDX parameter specified. ESM indices rebuilt.

Explanation: The CPCS job submitter requested, with the INDX parameter, that ESM rebuild its indices during the CPCS restart.

Severity: Informational

Operator Response: None

SMOF 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMOF 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMR1 00002 *xxxxxxxx* **Dynamic Workflow Rule creation was successful.**

Explanation: This DWA rule was successfully created, where:

xxxxxxxx
The task name for the rule

Severity: Informational

Operator Response: None

SMR1 10001 Invalid PF key entered. Please try again.

Explanation: The operator pressed a PF key that is not supported by this task.

Severity: Informational

Operator Response: Press a valid key.

SMR1 10005 Dynamic Workflow Rule creation cancelled by operator.

Explanation: The operator cancelled the DWA rule creation before the rule was created.

Severity: Warning

Operator Response: None

SMR1 20004 Duplicate Dynamic Workflow Rule already exists.

Explanation: The rule being created was already in the DWA rules file. The rule was not created again.

Severity: Error

Operator Response: If the rule already exists, do nothing. Verify the information you entered is correct.

SMR1 20007 The task is not in the CPCS DKNBLDL Table.

Explanation: The task name is not in the DKNBLDL table with the proper ESM parameters set.

Severity: Error

Operator Response: Verify that the task name was entered correctly. If it was, have the programmer correct the DKNBLDL.

SMR1 20008 The task is not ESM Startable or Trackable.

Explanation: The task name does not have the correct ESM parameters set to make the task ESM-startable or ESM-trackable.

Severity: Error

Operator Response: Verify that the task name was entered correctly. If it was, have the programmer correct the DKNBLDL.

SMR1 20009 Start Time must be 0000 through 2359.

Explanation: The time entered is not in the correct format. Re-enter the time in military format. The correct values are 0000 through 2359.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20010 Stop Time must be 0000 through 2359.

Explanation: The time entered is not in the correct format. Re-enter the time in military format. The correct values are 0000 through 2359.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20011 Task Version must be 01 through 99.

Explanation: The task version is not in the correct format. Re-enter the task version. The correct values are 01 through 99.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20012 Cycle number must be 0 through 9 or A through L.

Explanation: The cycle number is not in the correct format. Re-enter the cycle number. The correct values are 0 through 9, or A through L.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20013 Bank Number must be 001 through 255.

Explanation: The bank number is not in the correct format. Re-enter the field. The correct values are 001 through 255.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20014 Sort Pattern Number must be 001 through 255.

Explanation: The sort pattern is not in the correct format. Re-enter the field. The correct values are 001 through 255.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20015 Pass Number must be 1 through 4.

Explanation: The pass number is not in the correct format. Re-enter the field. The correct values are 1 through 4.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20016 Sort Number must be 01 through 99.

Explanation: The sorter number is not in the correct format. Re-enter the field. The correct values are 01 through 99.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20017 Entry Number must be 0001 through 9999.

Explanation: The entry number is not in the correct format. Re-enter the field. The correct values are 0001 through 9999.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20018 Tracer Number must be 0001 through 9999.

Explanation: The tracer number is not in the correct format. Re-enter the field. The correct values are 0001 through 9999.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20019 Endpoint Number must be 00000000 through 99999999.

Explanation: The endpoint number is not in the correct format. Re-enter the field. The correct values are 00000000 through 99999999.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20020 Valid Actions are (I)nclude, (E)xclude, or (R)eplace.

Explanation: The action entered is not a valid value, where:

I Include the task.

E Exclude the task.

R Replace the task with another.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20021 Replacement Task not allowed if Action is not R.

Explanation: A replacement task and version may not be specified if the action is not R.

Severity: Error

Operator Response: Delete the replacement task, or change the action to R.

SMR1 20022 Replacement Task Version not allowed if Action is not R.

Explanation: A replacement task version may not be specified if the action is not R.

Severity: Error

Operator Response: Delete the replacement task version, or change the action to R.

SMR1 20023 Replacement Task must be specified when Action = R.

Explanation: A replacement task was not specified when the action is R. Whenever the action is R, the replacement task must be entered.

Severity: Error

Operator Response: Enter a replacement task, or change the action from R.

SMR1 20024 Amount must be numeric.

Explanation: The amount field must be numeric.

Severity: Error

Operator Response: Enter the field in the correct format.

SMR1 20025 High Value must be greater than Low Value.

Explanation: The high-value field entered is not larger than the low-value.

Severity: Error

Operator Response: Enter the low value and/or high values so the high value is larger than the low value.

SMR1 20026 String Type must be I, D, R, M, or E.

Explanation: The string type entered is not a valid value. The string type must be a valid CPCS string type: I, D, R, M, or E.

Severity: Error

Operator Response: Enter the string type as a valid CPCS string type.

SMR1 20027 Pocket not numeric or valid reject pocket.

Explanation: The pocket number entered is not a valid CPCS string pocket format. The valid pocket formats are 2-digit numeric, or a valid CPCS reject pocket.

Severity: Error

Operator Response: Enter the pocket codes as a valid CPCS pocket number.

SMR1 20028 Autostart value must be Y or N.

Explanation: The only valid values for this field are Y, N, or blank. Y indicates that ESM will try to autostart the task. N indicates that ESM will not autostart the task. A blank does not change the autostarting of the task. Whatever the setting was before the DWA rule was encountered is the way it will stay.

Severity: Warning

Operator Response: Enter a valid value for the field.

SMR1 20029 Priority value must be from 1 to 9.

Explanation: The only valid values for this field are numeric 1 - 9, or blank. If a number is entered, the priority is set to that value for the task that is replaced. If the field is left blank, whatever the setting was before the DWA rule was encountered is the way it will stay.

Severity: Warning

Operator Response: Enter a valid value for the field.

SMR1 20030 AUTOSTART not allowed. Replacement Task NOT Startable in BLDL.

Explanation: The operator entered Y in the autostart field, but the task is not ESM-startable in the BLDL.

Severity: Warning

Operator Response: Either enter a blank or N in the field, or have the BLDL changed to allow ESM to autostart the task.

SMR1 30003 Dynamic Workflow Rule File I/O Error. Check ESM Log.

Explanation: An I/O error occurred when accessing the file for the DWA rules.

Severity: Severe

Operator Response: Check the ESM Log for more information regarding this error. You may find additional messages related to this problem in the CPCS scroll log or the JES log.

SMR2 00001 Press ENTER to CREATE Workflow Rule...any PF key to cancel.

Explanation: Press the ENTER key if you wish to confirm you want to create the workflow rule displayed on the screen.

Severity: Informational

Operator Response: Press ENTER to create the rule.

SMR2 00002 Press ENTER to DELETE Workflow Rule...any PF key to cancel.

Explanation: Press the ENTER key if you wish to confirm you want to delete the workflow rule displayed on the screen.

Severity: Informational

Operator Response: Press ENTER to delete the rule.

SMS0 00001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Informational

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMS0 00002 Please enter a current and new processing site.

Explanation: No site identifiers were entered when a key was pressed.

Severity: Informational

Operator Response: Specify both required CURRENT and NEW processing sites.

SMS0 00003 Processing Site change was successful.

Explanation: All UOWs and WRBs for the specified CURRENT processing site were changed to the NEW processing site.

Severity: Informational

Operator Response: None

SMS0 20004 No WRBs/UOWs exist for specified processing site.

Explanation: There are no UOWs or WRBs for the specified CURRENT processing site.

Severity: Warning

Operator Response: Specify the correct CURRENT processing site and re-attempt the operation.

SMS0 20005 Error changing specified processing sites.

Explanation: Enhanced System Manager encountered an internal error processing the request.

Severity: Error

Operator Response: Notify the CPCS Supervisor.

SMSRE 30001 QGET error obtaining lock for *xxxxxxxx* **queue.** *xxxxxxxx* **is the queue that has an error.**

Explanation: An ESM task could not obtain exclusive control of its work queue to get the next piece of work that it should perform.

Severity: Informational

Operator Response: Wait to see if the ESM task can gain control of its queue. If it cannot. you will see the message repeated about every 5 seconds. If the message persists, notify the CPCS supervisor.

Programmer Response: Browse the ESMLOG for more information. If the message continues to be displayed, an ESM queue is unusable and CPCS must be restarted.

SMSUB 00001 Job *nnnnnnnn* **(***jjjjjjjj***) submitted.**

Explanation: The batch job was submitted to run, where:

nnnnnnnn Is the job name

jjjjjjjj Is the job number

Severity: Informational

Operator Response: None

SMSUB 30003 Task=*xxxxxxxx* **Entry=***nnnn***. Input File Not Cataloged.**

Explanation: DKNSMSUB cannot locate the batch job data set, where:

xxxxxxxx Is the task name

nnnn Indicates the entry number, if applicable.

The batch job was not initiated due to a LOCATE macro failure.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional message indicates the specific error. Verify that the data set exists, and that the CPCS Run JCL points to the correct data set.

SMSUB 30004 Task=*xxxxxxxx* Entry=*nnnn*. Input File Not on Cataloged Volume.

Explanation: DKNSMSUB could not locate the batch job data set, where:

xxxxxxxx Is the task name on a cataloged volume

nnnn Indicates the entry number, if applicable.

The batch job was not initiated due to an OBTAIN macro failure.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional message indicates the specific error. Verify that the volume on which the data set resides is cataloged.

SMSUB 30005 Task=*xxxxxxxx* Entry=*nnnn*. Input File Record Length not eighty (80)

Explanation: The record length for the JCL member specified by task *xxxxxxxx* is not 80 bytes. *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Correct the JCL record length.

SMSUB 30006 Task=*xxxxxxxx* Entry=*nnnn*. Invalid Job Card.

Explanation: The batch job data set JCL for task *xxxxxxxx* had an error in the JOB card. *nnnn* indicates the entry number if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Correct the JCL.

SMSUB 30007 Task=*xxxxxxxx* Entry=*nnnn*. Unable to Allocate Internal Reader.

Explanation: The batch job for task *xxxxxxxx* had an error allocating the internal reader. This occurs because more than one job submission is running at the same time (either within CPCS or elsewhere in the system). *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Retry manually or restart from the ESM queue.

SMSUB 30008 Task=*xxxxxxxx* Entry=*nnnn*. Unable to OPEN Internal Reader.

Explanation: The batch job for task *xxxxxxxx* had an error opening the internal reader. This occurs because more than one job submission is running at the same time (either within CPCS or elsewhere in the system). *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Retry manually or restart from the ESM queue.

SMSUB 30009 Task=*xxxxxxxx* Entry=*nnnn*. Error WRITING to the Internal Reader.

Explanation: The batch job for task *xxxxxxxx* had an error writing the internal reader. This error occurs because of a problem with JES or the internal reader rather than with DKNSMSUB. *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Notify the CPCS supervisor.

Programmer Response: Look at CPCS logs to find additional error messages to determine the actual failure.

SMSUB 30010 Task=*xxxxxxxx* Entry=*nnnn*. Error Ending Job Submission Request.

Explanation: The batch job for task *xxxxxxxx* had an error ending the internal reader with an ENDREQ macro. This error occurs because of a problem with JES or the internal reader rather than with DKNSMSUB. *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Look at CPCS logs to find additional error messages to determine the actual failure.

SMSUB 30012 Task=*xxxxxxxx* Entry=*nnnn*. Job Card contains more than 9 records.

Explanation: The JCL batch job for task *xxxxxxxx* had an error with the JOB card. It contains too many records. Because of the way DKNSMSUB processes, no more than eight job card continuation cards can be present. *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Fix the JOB card in the batch job JCL.

SMSUB 30013 Task=*xxxxxxxx* Entry=*nnnn*. Member does not exist.

Explanation: The batch job data set member for task *xxxxxxxx* is not in the batch job data set. *nnnn* indicates the entry number, if applicable. The batch job was not initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Put the JCL member in the correct data set.

SMSUB 30014 Task=*xxxxxxxx* Entry=*nnnn*. Dynamic Allocation Failed.

Explanation: This message appears when the dynamic allocation of the data set *xxxxxx* fails. *nnnn* indicates the entry number if applicable. The batch job was not initiated due to a ALLOC macro failure.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional messages indicate the specific error. For more information, see the *OS/390 System Programming Library Management* manual.

SMSUB 30015 VSAM Macro Error. Function=*wwwwww*. CB=*xxx*. RC=*yyyy*. REA=*zzzz*.

Explanation: A VSAM macro error occurred, where:

wwwwww	Is the VSAM function
xxx	Is the VSAM control block
yyyy	Is the macro return code
zzzz	Is the macro reason code

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional messages indicate the specific error. Correct the error and retry.

SMSUB 30016 Communication File OPEN Error. RC=*xx*. REA=*yy*.

Explanation: An error occurred while opening a communications file, where:

xx	Is the return code
yy	Is the reason code

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional messages indicate the specific error. Correct the error and retry.

SMSUB 30017 Task=*xxxxxxxx* Entry=*nnnn*. Invalid Dataset.

Explanation: The batch job data set for task *xxxxxxxx* was not found. It may not be allocated or the member may not be in the data set. *nnnn* indicates the entry number, if applicable. The batch job did not get initiated.

Severity: Severe

Operator Response: Contact the CPCS programmer.

Programmer Response: Check the Scroll log and JES log to see if any additional messages indicate the specific error. Correct the error and retry.

SMSUP 00001 Tracer *nnnn* deletion in progress...

Explanation: ESM is in the process of deleting a tracer group.

Severity: Informational

Operator Response: None

SMSUP 00002 Tracer *nnnn* deletion complete....

Explanation: A tracer group has been deleted.

Severity: Informational

Operator Response: None

SMSUP 00003 ESM Cycle *nn* deletion in progress...

Explanation: ESM is in the process of deleting all data for cycle *nn*.

Severity: Informational

Operator Response: None

SMSUP 00004 ESM Cycle *nn* deletion complete...

Explanation: ESM has completed the cycle deletion for cycle *nn*.

Severity: Informational

Operator Response: None

SMSUP 30005 *** S E V E R E E S M E R R O R *****

Explanation: A severe error occurred while starting ESM. More messages follow this to explain what happened. This message may be used after the additional messages to make them stand out more effectively.

Severity: Severe error

Operator Response: Analyze the messages around this one to determine what happened.

SMSUP 30006 Enhanced System Manager STARTUP Failed.
ABEND in progress.

Explanation: A severe error occurred while starting ESM. An abend is taken. ESM will not function properly.

Severity: Severe error

Supervisor Response: Check the job output for more messages written to the system console to debug this problem.

SMS1 00006 Reorganization of this Task Profile Database is recommended.

Explanation: The Task Profile Database has become fragmented due to many writes and deletes. Reorganization eliminates this fragmentation.

Severity: Informational

Operator Response: For information on Reorganizing the workflow databases, see that section in this document.

SMS1 00008 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMS1 00009 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMS1 00010 No Task Profiles have been (S)elected. Please try again.

Explanation: You have asked to migrate Task Profiles, but no Task Profiles have been selected to migrate.

Severity: Informational

Operator Response: Select Task Profiles to migrate by typing an ‘S’ beside the entry on the screen and press PF6 to migrate. For HELP press PF1.

SMS1 00011 *xxxxxxxx* **attempted unauthorized TPL Delete.**

Explanation: Operator *xxxxxxxx* has attempted to do a TPL Delete but does not have RACF authority to perform this function.

Severity: Informational

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMS1 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMS1 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMS1 10004 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMS1 10007 Task Profile Database is empty. Migration required.

Explanation: The Workflow Database that you selected is empty.

Severity: Warning

Operator Response: You may Migrate workflows into this database from another database. For information on Migration of Task Profiles, see that section in this document.

SMS1 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMS1 20005 Update can NOT be performed in production environment.

Explanation: You are attempting to update Task Profile that is in the Production database. Task Profiles in the Production database cannot be edited or deleted.

Severity: Error

Operator Response: If you wish to change a Task Profile in the Production database you must first change it in another database and migrate it to Production.

SMS1 20012 *xxxxxxxx* **attempted unauthorized TPL Edit.**

Explanation: Operator *xxxxxxxx* has attempted to do a WFL Edit but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMS1 20013 *xxxxxxxx* **attempted unauthorized TPL Migrate.**

Explanation: Operator *xxxxxxxx* has attempted to do the TPL Migrate function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMS2 00002 Update successfully processed.

Explanation: You have requested a new Task Profile be updated and the request was processed successfully.

Severity: Informational

Operator Response: None

SMS2 00003 Model successfully processed.

Explanation: You have requested a new Task Profile be created using a model. The request was processed successfully.

Severity: Informational

Operator Response: None

SMS2 00005 DELETE successfully processed. Press ENTER to continue.

Explanation: You have requested that a Task Profile be deleted from a Task Profile database. The request has been successfully completed.

Severity: Informational

Operator Response: Press ENTER to continue.

SMS2 00007 Press ENTER to UPDATE...any valid PF key to cancel.

Explanation: Pressing ENTER will update the Task Profile. Pressing any PF key will cancel the update.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMS2 00008 Press ENTER to DELETE...PF3 to cancel.

Explanation: Pressing ENTER will Delete the Task Profile. Pressing any PF key will cancel the Delete.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMS2 00013 *xxxxxxxx* **edited** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has edited the task profile record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMS2 00014 *xxxxxxxx* **created** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has created the task profile record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMS2 00015 *xxxxxxxx* **deleted** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has deleted the task profile record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMS2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMS2 10009 Highlighted field(s) are in error. Please try again.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Warning

Operator Response: Type over highlighted field or fields with correct data.

SMS2 10011 Individual UOW Grouping requires this parameter be set to '1'.

Explanation: Since the UOW Grouping was specified as one task per unit of work (a value of '1'), the Grouping level value must be specified as '1'.

Severity: Warning

Operator Response: Set the Grouping level to '1'.

SMS2 10012 Individual UOW Grouping requires this parameter be set to '0'.

Explanation: Since the UOW Grouping was specified, the user Grouping level value must be specified as '0'.

Severity: Warning

Operator Response: Set the user Grouping level to '0'.

SMS2 10017 UOW Grouping has been disabled via ESM Profile *profile* **Option**

Explanation: The ESM Profile member (DKNPESM) UOW Grouping option has been disabled (UOW_GROUPING=NO).

Severity: Warning

Operator Response: If UOW grouping is needed, contact your CPCS programmer.

SMS2 20004 Model attempted for record that already exists.

Explanation: You have requested a new Task Profile be created using a model, but the new Task Profile has the same Task Profile key as an existing Task Profile. The Task Profile key consists of the Task name and Version.

Severity: Error

Operator Response: You must change either the Task Name or the Version for the new Task Profile you are creating.

SMS2 20006 DELETE not allowed for Version 01 default task profiles.

Explanation: You have requested that a Task Profile be deleted from a Task Profile database. However, the Task Profiles with a Version of 01 cannot be deleted.

Severity: Error

Operator Response: Press ENTER to continue.

SMS2 20010 Task must be Enhanced System Manager startable for COLD/WARM Start.

Explanation: You have attempted to update a Task Profile to be COLD or WARM started. However, the Task is not Enhanced System Manager startable, that is, the task must have SMSTRT=1 in DKNBLDL to be COLD or WARM started.

Severity: Error

Operator Response: Do not specify COLD or WARM start for this task or change the task's entry in DKNBLDL to SMSTRT=1.

SMS2 20018 Entry Type must be "P" or "blank". Please try again.

Explanation: The specified entry type is invalid.

Severity: Error

Operator Response: Specify either "P" for prime pass or a blank for current pass.

SMTQM 00004 *ttttttt* **ver** *vv* **Excluded for** *ssss(xxxx)*

Explanation: The task, *ttttttt*, version *vv* was excluded from the workflow for the string indicated, where:

ttttttt Is the task name that is excluded

vv Is the task profile version number

ssss Is the string name for which the task was excluded

xxxx Indicates whether the task was excluded by:

1. The DWA user exit, shown by "User Exit"

2. The DWA rule, shown by “DWA Rule”

Severity: Informational

Operator Response: None

SMTQM 00005 *xxxxxxxx* **ver** *yy* **Replaced by** *rrrrrrrr vv eeee-p-p1-p2-p3-p4-t-sss*

Explanation: A Dynamic Workflow Alteration (DWA) rule caused the task to be replaced by another task for the UOW indicated, where:

xxxxxxxx
The task that is being replaced

yy The task profile task version number

rrrrrrrr The replacement task

vv The replacement task profile version number

eeee-p-p1-p2-p3-p4-t-sss
The string name that had the task replaced.

Severity: Informational

Operator Response: None

SMTQM 00008 *tttttttt* **ver** *vv*: **Start=***ssss*, **Priority=***pp*.

Explanation: The task indicated was started. The message indicates if the task was ESM-autostarted or not, and what the priority was for the task, where:

tttttttt The name of the task started

vv The ESM task profile version number

ssss The type of start:

AUTOSTART
Autostarted by ESM

MANUAL Not autostarted by ESM

pp The priority of the task

Severity: Informational

Operator Response: None

SMTQM 00015 *xxxx* **Replaced** *task1* **ver** *v1* **for** *ssss*

Explanation: The task *task1/v1* was replaced with another task and/or version for the workflow for the string indicated.

xxxx Indicates whether the task was excluded by:

1. The DWA user exit, shown by “User Exit”
2. The DWA rule, shown by “DWA Rule”

task1 Is the task name that is replaced

v1 Is the task profile version number

ssss Is the string name for which the task was replaced

Severity: Informational

Operator Response: None

SMTQM 10001 Task: *yyyyyyyy* **Version:** *xx* **was not found.**

Explanation: The task listed in the task profile workflow is not a valid task.

yyyyyyyy Task
xx Version number

Severity: Warning

User Response: Edit the workflow that specified the invalid task or add the missing task to the task profile database.

SMTQM 30002 DKNPCTLI I/O Error. Tracer=*xxxx* **RC=***yyyy*

Explanation: ESM received an error from CPCS tracer group services, where:

xxxx Tracer being processed

yyyy Return code from DKNPCTLI

Severity: Error

Operator Response: Notify the CPCS programmer.

Programmer Response: Using the DKNPCTLI return code, determine the problem with the tracer being processed.

SMTQM 30003 Workflow Build Error. WFL=*xxxxxxxx* **Task=***yyyyyyyy* **Version=***zz*

Explanation: ESM was unable to build workflow information for a particular string, where:

xxxxxxxx Workflow record key

yyyyyyyy Task profile task name

zz Task profile version

Severity: Error

Operator Response: Notify the CPCS supervisor.

Supervisor Response: Using the message information, determine the workflow record problem.

SMTQM 30006 UOW for *eeee-p-p1-p2-p3-p4-t-sss* **not created successfully. Recursion in workflow rules.**

Explanation: The UOW indicated was not created successfully. Recursion occurred in the workflow rules. For example, Rule 1 replaces Task 1 with Task 2. Rule 2 replaces Task 2 with Task 1. This causes a loop, where ESM tries to continuously replace each task with the other, where:

eeee-p-p1-p2-p3-p4-t-sss
The string name that had the task replaced

Severity: Severe error

Programmer Response: Fix the DWA rules to eliminate the recursion.

SMTQM 30007 Last rule: *xxxxxxxx* **ver** *yy***, Replace task** *rrrrrrrr* **ver** *vv***.**

Explanation: This message follows SMTQM30006. It contains the task names in the last DWA rule read in a recursive DWA rule loop, where:

xxxxxxxx
The task that is being replaced

yy The task profile task version number

rrrrrrrr The replacement task

vv The replacement task profile version number

Severity: Severe error

Programmer Response: Fix the DWA rules to eliminate the recursion.

SMTQM 30009 Unknown action code (*cc***) returned by the DWA user exit for** *ssss, tttttttt/vv*

Explanation: The action code passed back from the user exit is not a supported value, where:

cc Is the action code returned from the user exit

ssss Is the string name that had the problem

tttttttt Is the task name from the DWA rule

vv Is the task profile version number

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

SMTQM 30010 The *task1* **Replace task name/version number is missing**

Explanation: The action requested from the DWA user exit said to replace the task, but a valid task name and/or version number was not specified by the user exit, where *task1* is the task name that is replaced.

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

SMTQM 30011 The replace task *task1* **from the DWA user exit is not ESM startable or trackable**

Explanation: The DWA user exit specified a replacement task, but the replacement task is not startable or trackable by ESM, where *task1* is the replacement task name.

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed, or to have the DKNBLDL modified.

SMTQM 30012 The replace task *task1* **from the DWA user exit is not in the CPCS DKNBLDL or the ESM submit JCL library**

Explanation: The DWA user exit specified a replacement task but the replacement task is not in the CPCS BLDL table, nor is it in the ESM Batch Job library, where *task1* is the replacement task name.

Severity: Severe error the DKNBLDL modified, or to have the batch job JCL fixed.

SMTQM 30013 No user exit is available for dynamic workflow processing

Explanation: The DWA user exit specified in the ESM profile can no longer be found in your ESM system.

Severity: Severe error

Operator Response: Contact your ESM programmer to fix either the user exit or the ESM profile.

Programmer Response: If the ESM profile is modified or if the user exit is modified, a CPCS restart is needed.

SMTQM 30014 An error occurred opening the submit JCL file

Explanation: An error occurred opening the submit JCL file.

Severity: Severe error

Operator Response: Contact your ESM programmer.

Programmer Response: Check the CPCS and ESM logs to determine the cause of the error.

SMTQM 30016 Invalid return code from DWA User Exit

Explanation: The DWA user exit sent back an invalid return code.

Severity: Severe error

Operator Response: Contact your ESM programmer to get the user exit fixed.

SMTQM 30017 UOW Init Aborted for *ssss*

Explanation: ESM encountered problems while building the workflow for the UOW. The WRBs for the workflow have not been set up completely. The problem is most likely caused by:

1. A missing task profile specified in a workflow
2. An invalid DWA record
3. An invalid DWA user exit

Where *ssss* is the string name for the UOW that did not get the full workflow setup.

Severity: Severe error

Operator Response: Check the ESM log and the scroll log for messages that indicate where the error is. Fix the DWA and/or task profile/workflow errors. Have your programming staff fix user exit errors.

SMTQ3 00004 Dynamic Workflow Rules are in effect.

Explanation: This is an informational message to log the fact that workflow rules are in effect.

Severity: Informational

Operator Response: Verify that the workflow rules are needed, and change these rules as desired.

SMTQ3 00005 *xxxxxxxx* **Dynamic Workflow Rule ADDED by** *uuuuuuuu*

Explanation: A workflow rule was added for task *xxxxxxxx* by user *uuuuuuuu*.

Severity: Informational

Operator Response: None

SMTQ3 00006 *xxxxxxxx* **Dynamic Workflow Rule DELETED by** *uuuuuuuu*

Explanation: A workflow rule was deleted for task *xxxxxxxx* by user *uuuuuuuu*.

Severity: Informational

Operator Response: None

SMTQ3 30001 VSAM Macro Error. FUNCTION=*xxxxxxxx***. CB=***cb***. RC=***rr***. REA=***nn***.**

Explanation: ESM encountered a VSAM error while performing I/O on the DWA file, where:

xxxxxxxx
Is the VSAM function being performed

cb Is the VSAM control block

rr Is the VSAM return code

nn Is the VSAM reason code

Severity: Severe error

Operator Response: Determine the cause of the VSAM error and correct it. Additional information may be in the CPCS JES log, scroll log, or ESM log to determine the problem.

SMTQ3 30002 File OPEN Error. RC=*rr***. REA=***nn***.**

Explanation: ESM encountered a VSAM error while opening the DWA file, where:

rr Is the VSAM return code

nn Is the VSAM reason code

Severity: Severe error

Operator Response: Determine the cause of the VSAM error and correct it. Additional information may be found in the CPCS JES log, scroll log, or ESM log to determine the problem.

SMTQ3 30003 Dynamic Workflow File Error. Check ESM Log.

Explanation: An error occurred with the DWA file. Check the ESM log for more information.

Severity: Severe error

Operator Response: Determine the cause of the error and correct it. Information in the ESM log may help you determine the problem.

SMTQ3 30007 ENQ Error. QNAME = *qqqqqqqq***, RNAME =** *rrrrrrrr***, Function =** *ffffffff*

Explanation: An ENQ error occurred while updating the DWA file. The function indicates where the failure occurred. The function did not complete successfully. Where:

rrrrrrrr Is the ENQ RNAME token

qqqqqqqq
Is the ENQ QNAME token

ffffffff Indicates the purpose of the ENQ. The valid functions are:

ADD RULE
Adding a rule

DEL RULE
Deleting a rule

Severity: Severe error

Programmer Response: Determine the cause of the ENQ error and fix it.

SMTQ3 30008 DEQ Error. QNAME = *qqqqqqqq***, RNAME =** *rrrrrrrr***, Function =** *ffffffff***.**

Explanation: A DEQ error occurred while updating the DWA file. The function indicates where the failure occurred. The function did not complete successfully. Where:

qqqqqqqq
Is the ENQ QNAME token

rrrrrrrr Is the ENQ RNAME token

ffffffff Indicates the purpose of the ENQ. Valid functions are:

ADD RULE
Adding a rule

DEL RULE
Deleting a rule

Severity: Severe error

Programmer Response: Determine the cause of the DEQ error and fix it.

SMTQ5 00001 ENDPRIME activated for Cycle *xx* ENDPRIME Status =*ss*

Explanation:

xx Cycle
ss ENDPRIME Status

Severity: Informational

User Response: None

SMTQ7 00001 Task Split for *yy* from *xx* to *zz* was successful.

Explanation:

yy This is the name of the task that was split into two tasks.
xx This is the original task.
zz This is the new, unprocessed, task.

Severity: Informational

User Response: None

SMTQ7 00002 Tracer Split for *yy* from *xx* to *zz* was successful

Explanation:

yy This is the name of the affected task.
xx This is the original tracer that was deleted.
zz This is the new tracer that the task is now associated with.

Severity: Informational

User Response: None

SMT0 00010 End Cycle in progress. Task processing is not active.

Explanation: End Cycle is in progress for the cycle you specified, which means there are no tasks active for this cycle.

Severity: Informational

Operator Response: None

SMT0 10001 Invalid PF key entered. Please try again.

Explanation: The PF key you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT0 10002 CYCLE number must be 0-9 or A-L. Please try again.

Explanation: The CYCLE you entered is not 0-9 OR A-L.

Severity: Warning

Operator Response: Enter proper CYCLE. Press PF1 for HELP.

SMT0 10003 ENDPOINT must be eight digits. Please try again.

Explanation: The ENDPOINT you entered is not eight digits.

Severity: Warning

Operator Response: Enter eight-digit ENDPOINT. Press PF1 for HELP.

SMT0 10004 Sort Pattern must be three digits. Please try again.

Explanation: The Sort Pattern you entered is not three digits.

Severity: Warning

Operator Response: Enter three-digit Sort Pattern. Press PF1 for HELP.

SMT0 10005 ENTRY must be four digits. Please try again.

Explanation: The ENTRY you entered is not four digits.

Severity: Warning

Operator Response: Enter four-digit ENTRY. Press PF1 for HELP.

SMT0 10006 TRACER must be four digits. Please try again.

Explanation: The TRACER you entered is not four digits.

Severity: Warning

Operator Response: Enter four-digit TRACER. Press PF1 for HELP.

SMT0 10007 Work status must be ‘P’, ‘R’, or ‘C’. Please try again.

Explanation: You have typed in a work status that is not either ‘P’, ‘R’, or ‘C’.

Severity: Warning

Operator Response: Enter a Work status of either ‘P’, ‘R’, or ‘C’.

SMT0 10008 System Completion Code must be three digits. Please try again.

Explanation: The System Completion Code you entered is not three digits.

Severity: Warning

Operator Response: Enter three-digit System Completion Code. Press PF1 for HELP.

SMT0 10009 User Completion Code must be three digits. Please try again.

Explanation: The User Completion Code you entered is not three digits.

Severity: Warning

Operator Response: Enter three-digit User Completion Code. Press PF1 for HELP.

SMT0 10011 Priority selection operator not EQ,NE,LT,LE,GT OR GE.

Explanation: The Priority operator that you type in MUST be either EQ,NE,LT,LE,GT OR GE.

Severity: Warning

Operator Response: Type in a new Priority operator that is either EQ,NE,LT,LE, GT OR GE.

SMT0 10012 System code selection operator not EQ,NE,LT,LE,GT OR GE.

Explanation: The System code operator that you type in MUST be either EQ,NE,LT,LE,GT OR GE.

Severity: Warning

Operator Response: Type in a new System code operator that is either EQ,NE,LT,LE, GT OR GE.

SMT0 10013 User code selection operator not EQ,NE,LT,LE,GT OR GE.

Explanation: The User code operator that you type in MUST be either EQ,NE,LT,LE,GT OR GE.

Severity: Warning

Operator Response: Type in a new User code operator that is either EQ,NE,LT,LE, GT OR GE.

SMT1 00002 Update was successful.

Explanation: You have requested to change the status of a pending task and update was processed successfully.

Severity: Informational

Operator Response: None

SMT1 00003 No information meets the selection criteria.

Explanation: No entries were found that meet the selection criteria that you entered.

Severity: Informational

Operator Response: Try again with a different set of selection criteria.

SMT1 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMT1 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMT1 00010 Press ENTER to confirm or any PF key to cancel.

Explanation: Pressing ENTER confirms your request. Pressing any PF key cancels the request.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMT1 00011 Update is no longer valid for item.

Explanation: The task selected for update is no longer in a (P)ending Status.

Severity: Informational

Operator Response:

SMT1 00021 Task *xxxxxxxx* **has been split successfully.**

Explanation: The task that was (F)orced ready was split into two tasks, one that contains all UOWs that can be processed and one that contains all (P)ending UOWs.

Severity: Informational

Operator Response:

SMT1 00022 Task split unsuccessful. Task is not SMGR Startable.

Explanation: The task that was selected is not startable by Enhanced System Manager and therefore cannot be forced ready.

Severity: Informational

Operator Response:

SMT1 00023 Task split unsuccessful. All functional UOWs are PENDING.

Explanation: The task that was selected contains no UOWs that could be processed.

Severity: Informational

Operator Response:

SMT1 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT1 10006 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMT1 10008 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMT1 10009 Priority must be 0-9. Please try again.

Explanation: You attempted to change the priority of a task to something other than 0-9.

Severity: Warning

Operator Response: Type in a valid priority.

SMT1 10012 Item is already on hold. Update is not valid.

Explanation: This task is already on hold and cannot be updated until it is released.

Severity: Warning

Operator Response: If you wish to update this task, you must first release it.

SMT1 10013 Item is not on hold. Update is not valid.

Explanation: This task is not on hold and cannot be released.

Severity: Warning

Operator Response: None

SMT1 10014 Required strings have not completed. Update is not valid.

Explanation: You have attempted to update a pending task whose required strings have not yet completed.

Severity: Warning

Operator Response: Wait for the strings to complete before updating the task.

SMT1 10015 Insufficient storage. Please try again.

Explanation: DKNSMT1 has called DKNSMTQM to process your request. DKNSMTQM was unable to obtain storage to process your request.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS supervisor and your CPCS programmer.

SMT1 10016 Task Status changed to (R)eady but task is not Enhanced System Manager startable.

Explanation: You have requested to Force Ready a task that is not Enhanced System Manager startable. That is that in DKNBLDL this task does not have the parameter SMSTRT=1. The status of this task has been changed to Ready, but it will not be started by Enhanced System Manager.

Severity: Warning

Operator Response: If you wish Enhanced System Manager to start this task, you must change the task's entry in DKNBLDL to have the SMSTRT=1 parameter.

SMT1 10017 Only Enhanced System Manager startable tasks may be held.

Explanation: You have requested to hold a task that is not Enhanced System Manager startable. That is that in DKNBLDL this task does not have the parameter SMSTRT=1.

Severity: Warning

Operator Response: If you wish Enhanced System Manager to hold this task, you must change the task's entry in DKNBLDL to have the SMSTRT=1 parameter.

SMT1 10018 Task was not found for update. Please try again.

Explanation: DKNSMT1 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because it could not find the WRB associated with your task.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and CPCS Programmer.

SMT1 10019 Task record pointer was not valid. Please try again.

Explanation: DKNSMT1 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because the Hiperpointer associated with your task is invalid.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS supervisor and CPCS programmer.

SMT1 20007 Enhanced System Manager List Function returned an invalid RC.

Explanation: DKNSMT1 has called DKNSMTDX which has returned an error code.

Severity: Error

Operator Response: Tell your CPCS supervisor and CPCS programmer.

SMT1 20020 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT1 20025 *xxxxxxxx* **attempted unauthorized Task Cancel.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Cancel but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT1 20026 *xxxxxxxx* **attempted unauthorized Task Hold.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Hold. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT1 20027 *xxxxxxxx* **attempted unauthorized Task Release.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Release. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT1 20028 *xxxxxxxx* **attempted unauthorized Task Force.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Force. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 00003 Update was successful.

Explanation: You have requested to change the status of a ready task and update was processed successfully.

Severity: Informational

Operator Response: None

SMT2 00004 No information meets the selection criteria.

Explanation: No entries were found that meet the selection criteria that you entered.

Severity: Informational

Operator Response: Try again with a different set of selection criteria.

SMT2 00005 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMT2 00006 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMT2 00011 Press ENTER to confirm or any PF key to cancel.

Explanation: Pressing ENTER will confirm your request. Pressing any PF key will cancel the request.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMT2 00012 Update is no longer valid for item.

Explanation: The task selected is no longer (R)eady.

Severity: Informational

Operator Response:

SMT2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT2 10002 Task is active. Update is not allowed.

Explanation: You have requested to update a task that is currently active and cannot be updated.

Severity: Warning

Operator Response: None

SMT2 10007 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric page number.

SMT2 10009 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMT2 10010 Priority must be 0-9. Please try again.

Explanation: You attempted to change the priority of a task to something other than 0-9.

Severity: Warning

Operator Response: Type in a valid priority.

SMT2 10013 Item is already on hold. Update is not valid.

Explanation: This task is already on hold and cannot be updated until it is released.

Severity: Warning

Operator Response: If you wish to update this task, you must first release it.

SMT2 10014 Item is not on hold. Update is not valid.

Explanation: This task is not on hold and cannot be released.

Severity: Warning

Operator Response: None

SMT2 10015 Required strings have not completed. Update is not valid.

Explanation: You have attempted to update a whose required strings have not yet completed.

Severity: Warning

Operator Response: Wait for the strings to complete before updating the task.

SMT2 10016 Insufficient storage. Please try again.

Explanation: DKNSMT2 has called DKNSMTQM to process your request. DKNSMTQM was unable to obtain storage to process your request.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and your CPCS Programmer.

SMT2 10017 Task is not Enhanced System Manager startable.

Explanation: You have requested to hold a task that is not System Manager startable, that is, in DKNBLDL this task does not have the parameter SMSTRT=1.

Severity: Warning

Operator Response: If you wish Enhanced System Manager to hold this task, you must change the task's entry in DKNBLDL to have the SMSTRT=1 parameter.

SMT2 10018 Only Enhanced System Manager startable tasks may be held.

Explanation: You have requested to hold a task that is not Enhanced System Manager startable, that is, in DKNBLDL this task does not have the parameter SMSTRT=1.

Severity: Warning

Operator Response: If you wish Enhanced System Manager to hold this task, you must change the task's entry in DKNBLDL to have the SMSTRT=1 parameter.

SMT2 10019 Task was not found for update. Please try again.

Explanation: DKNSMT2 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because it could not find the WRB associated with your task.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS supervisor and CPCS programmer.

SMT2 10020 Task record pointer was not valid. Please try again.

Explanation: DKNSMT2 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because the Hiperpointer associated with your task is invalid.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and CPCS Programmer.

SMT2 20008 Enhanced System Manager List Function returned an invalid RC.

Explanation: DKNSMT2 has called DKNSMTDX who has returned with a bad return code.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMT2 20021 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 20022 *xxxxxxxx* **attempted unauthorized Task Cancel.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Cancel. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 20023 *xxxxxxxx* **attempted unauthorized Task Hold.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Hold. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 20024 *xxxxxxxx* **attempted unauthorized Task Release.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Release. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 20025 *xxxxxxxx* **attempted unauthorized Task Start.**

Explanation: Operator *xxxxxxxx* has attempted to do a Task Start. but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT2 20026 *xxxxxxxx* **attempted unauthorized Task Zap.**

Explanation: An unauthorized operator attempted to zap a task to complete status, where:

xxxxxxxx The operator ID

Severity: Warning

Operator Response: None

SMT2 20027 *xxxxxxxx* **ZAPPED Task=***yyyyyyyy* **Entry=***nnnn* **to (C)omplete status.**

Explanation: A task has been zapped to complete status, where:

xxxxxxxx The operator ID

yyyyyyyy The task name

nnnn The task entry number

Severity: Informational

Operator Response: None

SMT2 20028 Error ZAPPING task. Oper=*xxxxxxxx* **Task=***yyyyyyyy* **Entry=***nnnn*

Explanation: An error occurred during an attempt to zap a task to complete status, where:

xxxxxxxx The operator ID

yyyyyyyy The task name

nnnn The task entry number

Severity: Error

Operator Response: Notify the CPCS supervisor.

SMT3 00002 Update was successful.

Explanation: You have requested to change the status of a completed task and update was processed successfully.

Severity: Informational

Operator Response: None

SMT3 00003 No information meets the selection criteria.

Explanation: No entries were found that meet the selection criteria that you entered.

Severity: Informational

Operator Response: Try again with a different set of selection criteria.

SMT3 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMT3 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMT3 00007 Enhanced System Manager List Function returned an invalid RC.

Explanation: DKNSMT3 has called DKNSMTDX who has returned with a bad return code.

Severity: Severe error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMT3 00009 Press ENTER to confirm or any PF key to cancel.

Explanation: Pressing ENTER will confirm your request. Pressing any PF key will cancel the request.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMT3 00010 Update is no longer valid for item.

Explanation: The task selected is no longer (C)omplete.

Severity: Informational

Operator Response:

SMT3 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT3 10006 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMT3 10008 Invalid option code. Please try again.

Explanation: You typed in an invalid or blank option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMT3 10011 Required strings have not completed. Update is not valid.

Explanation: You have attempted to update a whose required strings have not yet completed.

Severity: Warning

Operator Response: Wait for the strings to complete before updating the task.

SMT3 10012 Insufficient storage. Please try again.

Explanation: DKNSMT3 has called DKNSMTQM to process your request. DKNSMTQM was unable to obtain storage to process your request.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and your CPCS Programmer.

SMT3 10013 Task Status changed to (R)eady but task is not Enhanced System Manager startable.

Explanation: You have requested to Force Ready a task that is not Enhanced System Manager startable, that is, in DKNBLDL this task does not have the parameter SMSTRT=1. The status of this task has been changed to Ready, but it will not be started by Enhanced System Manager.

Severity: Warning

Operator Response: If you wish Enhanced System Manager to start this task, you must change the task's entry in DKNBLDL to have the SMSTRT=1 parameter.

SMT3 10014 Task is not eligible for restart due to System RC=422.

Explanation: DKNSMT3 has called DKNSMTQM to process your restart request. DKNSMTQM has not completed your request because of a system return code of 422.

Severity: Warning

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMT3 10015 Task was not found for update. Please try again.

Explanation: DKNSMT3 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because it could not find the WRB associated with your task.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and CPCS Programmer.

SMT3 10016 Task record pointer was not valid. Please try again.

Explanation: DKNSMT3 has called DKNSMTQM to process your request. DKNSMTQM has not completed your request because the Hiperpointer associated with your task is invalid.

Severity: Warning

Operator Response: Try your request again. If you get the same message, tell your CPCS Supervisor and CPCS Programmer.

SMT3 20017 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT3 20018 *xxxxxxxx* **attempted unauthorized Task Restart.**

Explanation: Operator xxxxxxxx has attempted to do the Task Restart function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMT4 00002 There are not any UOWs for this task.

Explanation: There are not any UOWs associated with this task.

Severity: Informational

Operator Response: None

SMT4 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMT4 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMT4 00007 Task status has changed. Task is no longer valid.

Explanation: The task status has changed.

Severity: Informational

Operator Response: Exit this menu.

SMT4 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT4 10006 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMT4 20003 Enhanced System Manager List Function returned an invalid RC.

Explanation: DKNSMT4 has called DKNSMTDX who has returned with a bad return code.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMT5 10001 Invalid PF Key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT5 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this menu.

Severity: Warning

Operator Response: Choose a valid option.

SMT5 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: Contact your CPCS Supervisor.

Supervisor Response: If the operator should be able to perform this function, the operator must be added to the CPCS security system for this function.

SMT5 20004 *xxxxxx* **attempted unauthorized option.**

Explanation: Operator *xxxxxx* has attempted an option that operator *xxxxxx* does not have authority to perform.

Severity: Error

Operator Response: Contact your CPCS Supervisor.

Supervisor Response: If the operator should be able

to perform this function, the operator must be added to the CPCS security system for this function.

SMT6 00004 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMT6 00005 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMT6 00007 No Task Summary Records exist.

Explanation: There are no task summary records to display.

Severity: Informational

Operator Response: None

SMT6 10001 Invalid PF Key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMT6 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this menu.

Severity: Warning

Operator Response: Choose a valid option.

SMT6 10006 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric page number.

SMT6 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: Contact your CPCS Supervisor.

Supervisor Response: If the operator should be able to perform this function, the operator must be added to the CPCS security system for this function.

SMWB 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMWB 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMWB 10003 Select a DESTINATION level to receive the SOURCE data.

Explanation: You have requested a migration from one workflow database to another and now you must select a destination database.

Severity: Warning

Operator Response: Type in the number beside the destination database you wish to choose.

SMWB 10004 DESTINATION name identical to SOURCE name. Please try again.

Explanation: You have requested a migration from one workflow database to another and have selected a destination database that is identical to the source database.

Severity: Warning

Operator Response: Select another database.

SMWB 10007 This is the first page of data to display.

Explanation: This is the first page to display.

Severity: Informational

Operator Response: None

SMWB 10008 This is the last page of data to display.

Explanation: No more pages exist to display.

Severity: Informational

Operator Response: None

SMWC 00001 Press ENTER to begin MIGRATION...any PF key to cancel.

Explanation: Pressing ENTER will initiate MIGRATION. Pressing any PF key will cancel MIGRATION.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMWC 00002 MIGRATION was Successful.

Explanation: The MIGRATION that you just requested was accomplished successfully.

Severity: Informational

Operator Response: None

SMWDX 30001 *xxxxxxxx* **WRB Index Corrupted. WARM Start Required!**

Explanation: The ESM task-related indices have been damaged, where *xxxxxxxx* is the name of the WRB index that is corrupted.

Severity: Severe Error

Operator Response: CPCS should be shut down and restarted immediately.

SMWDX 30002 Chaining Error for *xxxxxxxx* **index. WARM start required.**

Explanation: An error occurred while chaining the WRB indices. The index being chained is *xxxxxxxx*.

Severity: Severe error

Operator Response: CPCS should be shut down and restarted immediately. The ESMLOG should be saved and delivered to IBM support.

SMWDX 30003 No room on *xxxxxxxx* **index for KEY** *yyyyyyyy***. Warm Start Required.**

Explanation: The secondary WRB index is full. The WRB that is being added to the indexes failed for the index shown in the message. The key may indicate which key failed. Some keys may not format properly, where:

xxxxxxxx The name of the WRB index that is full

yyyyyyyy The key where the failure occurred. This value may show up as blanks.

Severity: Severe error

Operator Response: Notify the supervisor or programmer about this problem.

Programmer Response: Save the ESMLOG and associated debug data if assistance is needed from IBM. Check for index corruption in the ESMLOG. You must restart CPCS.

If an index is full, the situation must be remedied or the problem still exists after the restart. For the tracer or entry index, you may need to enlarge the size of the index (by changing the MAX_ENTRIES=*nnnn* in the ESM profile member of the SYSTPROF) and then reallocating the data sets with the DKNSMAL2 JCL. An ESM INIT is needed after this action.

If the problem persists, you may have to rebuild the ESM indices on restart. Contact IBM for advice if needed.

SMWD2 30001 *xxxxxxxx* **WRB Index Corrupted. WARM Start Required!**

Explanation: The ESM WRB index for the index indicated has been corrupted, where *xxxxxxxx* is the name of the index that contains the error.

Severity: Severe error

Operator Response: CPCS should be shut down and restarted immediately. Set the ESM INDX parameter in the CPCS startup JCL to make sure ESM is indexed again.

SMWD2 30002 WRB Error in *xxxxxxxx* **Index. Index Repaired.**

Explanation: An error occurred while reading a WRB from the WRB index for the index indicated, where *xxxxxxxx* is the name of the index that contains the error.

Severity: Severe error

Operator Response: ESM corrected the error. Save the ESMLOG for analysis by IBM.

SMWR 00004 This is the first page of data to display.

Explanation: This IS the first page of data to display.

Severity: Informational

Operator Response: None

SMWR 00005 This is the last page of data to display.

Explanation: This IS the last page of data to display.

Severity: Informational

Operator Response: None

SMWR 00007 No Dynamic Workflow Rules Exist.

Explanation: No workflow rules exist in the ESM DWA file. The screen is blank.

Severity: Informational

Operator Response: None

SMWR 00008 *xxxxxxxx* **Dynamic WorkFlow Rule DELETION was Successful.**

Explanation: The workflow rule was deleted, where:

xxxxxxxx
Is the task name for the deleted workflow rule.

Severity: Informational

Operator Response: None

SMWR 10001 Invalid PF key entered. Please try again.

Explanation: You pressed a PF key that is not supported on this screen.

Severity: Warning

Operator Response: Please press a valid key.

SMWR 10002 Invalid or blank option code entered. Please try again.

Explanation: You entered an option code that is not supported on this screen.

Severity: Warning

Operator Response: Enter a valid option.

SMWR 10006 Page number must be numeric. Please try again.

Explanation: This page number that was entered is not numeric.

Severity: Warning

Operator Response: Enter a valid numeric value between 000 through 999.

SMWR 20003 Insufficient authority to perform this function.

Explanation: You do not have security authority to perform this function.

Severity: Error

Operator Response: See your security administrator to gain access to this function.

SMW0 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW0 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW0 10003 Please select one of the three workflow components.

Explanation: You have chosen Workflow Definition from the main menu and now must choose which workflow component you wish to define.

Severity: Warning

Operator Response: Type in the number next to the workflow component you wish to define.

SMW0 20004 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this

function, you must be added to the RACF security file for this function.

SMW1 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW1 10002 SORT PATTERN must be three digits. Please try again.

Explanation: The SORT PATTERN that you entered is not three digits.

Severity: Warning

Operator Response: Enter three digit SORT PATTERN. Press PF1 for HELP.

SMW1 10003 PASS must be one digit. Please try again.

Explanation: The PASS that you entered is not one digit.

Severity: Warning

Operator Response: Enter a one digit PASS. Press PF1 for HELP.

SMW1 10004 ENDPOINT must be eight digits. Please try again.

Explanation: The ENDPOINT that you entered is not eight digits.

Severity: Warning

Operator Response: Enter eight digit ENDPOINT. Press PF1 for HELP.

SMW1 10005 CATEGORY must be two digits. Please try again..

Explanation: The CATEGORY that you entered is not two digits.

Severity: Warning

Operator Response: Enter two digit CATEGORY. Press PF1 for HELP.

SMW1 10006 POCKET HISTORY must be in format H1-H2-H3-H4.

Explanation: The POCKET HISTORY that you entered is not in proper format.

Severity: Warning

Operator Response: Enter POCKET HISTORY in proper format. Press PF1 for HELP.

SMW1 10007 TYPE must be equal to I, D, E, R, or M. Please try again.

Explanation: String TYPE must be either I, D, E, R, or M.

Severity: Warning

Operator Response: Enter String TYPE of either I, D, E, R, or M. Press PF1 for HELP.

SMW1 10008 Workflow file error. The file might be empty.

Explanation: An error occurred while attempting to read workflow database.

Severity: Warning

Operator Response: If you believe that the file is empty, you may migrate or generate. If the database is not empty, see your CPCS supervisor.

SMW2 00007 Workflow Database is empty. Migration or Generation required.

Explanation: The Workflow Database with the search criteria that you have selected is empty.

Severity: Informational

Operator Response: You may either Generate workflows into this database by pressing PF9 or you may Migrate workflows into this database from another database. For information on Migration or Generation of workflows, see that section in this document.

SMW2 00008 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMW2 00009 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMW2 00010 No Workflow Records have been (S)elected. Please try again.

Explanation: You have asked to migrate workflows, but no workflows have been selected to migrate.

Severity: Informational

Operator Response: Select workflows to migrate by typing an 'S' beside the entry on the screen and press PF6 to migrate. For HELP press PF1.

SMW2 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW2 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW2 10004 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric page number.

SMW2 10006 Reorganization of this Workflow Database is recommended.

Explanation: The Workflow Database has become fragmented due to many writes and deletes. Reorganization will eliminate this fragmentation.

Severity: Warning

Operator Response: For information on reorganizing the workflow databases, see that section in this document.

SMW2 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW2 20005 Update can NOT be performed in production environment.

Explanation: You are attempting to update a Workflow that is in the Production database. Workflows in the Production database cannot be edited or deleted.

Severity: Error

Operator Response: If you wish to change a Workflow in the Production database you must first change it in another database and migrate it to Production.

SMW2 20011 *xxxxxxxx* **attempted unauthorized WFL Delete.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Delete function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW2 20012 *xxxxxxxx* **attempted unauthorized WFL Edit.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Edit function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW2 20013 *xxxxxxxx* **attempted unauthorized WFL Migrate.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Migrate function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW2 20014 *xxxxxxxx* **attempted unauthorized WFL Generate.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Generate function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW3 00003 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMW3 00004 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMW3 00005 UPDATE successfully processed.

Explanation: You have requested a Workflow be updated and the request was processed successfully.

Severity: Informational

Operator Response: None

SMW3 00006 UPDATE cancelled.

Explanation: You have requested a Workflow be updated, but have chosen to cancel the request.

Severity: Informational

Operator Response: None

SMW3 00007 MODEL successfully processed.

Explanation: You have requested to create a new Workflow using a Model of another Workflow record. Your request has been processed successfully.

Severity: Informational

Operator Response: None

SMW3 00009 DELETE successfully processed. Press ENTER to continue.

Explanation: You have requested that a Workflow be deleted from a Workflow database. The request has been successfully completed.

Severity: Informational

Operator Response: Press ENTER to continue.

SMW3 00010 DELETE not allowed for a category default model.

Explanation: The operator attempted to delete a model that is one of CPCS's default categories.

Severity: Informational

Operator Response: None

SMW3 00011 MODEL not allowed for a pass of 0.

Explanation: An invalid Pass number 0 was entered.

Severity: Informational

Operator Response: Enter a valid value of 1, 2, 3, or 4.

SMW3 00012 Press ENTER to UPDATE...any valid PF key to cancel.

Explanation: Pressing ENTER updates the Workflow record. Pressing any PF key cancels the update.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMW3 00013 Press ENTER to DELETE...PF3 to cancel.

Explanation: Pressing ENTER deletes the Workflow record. Pressing PF3 key cancels the DELETE.

Severity: Informational

Operator Response: Press ENTER if you wish to delete the Workflow Record. Press PF3 if something is wrong and you wish to cancel.

SMW3 00020 No data to display on next page.

Explanation: You have requested to page forward, but there is no data on the next page.

Severity: Informational

Operator Response: None

SMW3 00024 *xxxxxxxx* **edited** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has edited the workflow record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMW3 00025 *xxxxxxxx* **created** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has created the workflow record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMW3 00026 *xxxxxxxx* **deleted** *yyyyyyyyyy* **in** *zzzzzzzzzzzzzzz*

Explanation: Operator *xxxxxxxx* has deleted the workflow record with key *yyyyyyyyyy* in the workflow database level *zzzzzzzzzzzzzzz*.

Severity: Informational

Operator Response: None

SMW3 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW3 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW3 10014 Highlighted field(s) are in error. Please try again.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Warning

Operator Response: Type over highlighted field or fields with correct data.

SMW3 10017 INSERT not allowed for last task. Please try again.

Explanation: You have requested to insert a task after the last task in a workflow record.

Severity: Warning

Operator Response: Simply type in another task at the end of the list.

SMW3 10018 INSERT not allowed while blank tasks already exist.

Explanation: You have requested to insert a task, but a blank task already exists in the list.

Severity: Warning

Operator Response: Delete the blank task and try again.

SMW3 10019 INSERT not allowed while task path is full.

Explanation: You have requested to insert a task, but the task path list is full.

Severity: Warning

Operator Response: Delete an entry and try again.

SMW3 10022 This task can not be started by ESM.

Explanation: You have requested to add a task to the workflow record, with auto=1, but this task cannot be started by Enhanced System Manager. To be started by Enhanced System Manager, the task must have SMSTRT=1 in DKNBLDL.

Severity: Warning

Operator Response: Change auto=1 to auto=0 or change the task's entry in DKNBLDL to have the parameter SMSTRT=1.

SMW3 10023 This task can not be tracked by ESM.

Explanation: You have requested to add a task to the workflow record, but this task cannot be tracked by Enhanced System Manager. To be tracked by Enhanced System Manager, the task must have SMTRACK=1 in DKNBLDL.

Severity: Warning

Operator Response: Change auto=1 to auto=0 or change the task's entry in DKNBLDL to have the parameter SMTRACK=1.

SMW3 10027 ESM Auto-Starting has been disabled.

Explanation: You attempted to make a task autostartable, but the task is not set up as autostartable in the DKNBLDL.

Severity: Warning

Operator Response: Either have the DKNBLDL changed to allow ESM to start the task, or enter `'N'` to indicate ESM should not autostart the task.

SMW3 20008 MODEL attempted for record that already exists.

Explanation: You have requested a new Workflow be created using a model, but the new Workflow has the same Workflow key as an existing Workflow. The Workflow key consists of the Sort Pattern, Pass, Pph1, Pph2, Pph3, Pph4 and String Type.

Severity: Error

Operator Response: You must change any of the Workflow key elements for the new Workflow that you are creating.

SMW3 20015 Task/Version is not on the task profile database.

Explanation: You have requested the Task Profile function, but the Task Profile you are interested in is not on the task profile database.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW3 20016 Tasks following blank entry not allowed.

Explanation: You have requested to update a workflow record with a task that follows a blank entry in the task list. Blank task entries in front of valid task entries is not allowed.

Severity: Error

Operator Response: Delete the blank entry and continue.

SMW3 20021 This task was not found in the CPCS DKNBLDL Module.

Explanation: You have requested to add a task to the workflow record, but the task is not in DKNBLDL.

Severity: Error

Operator Response: Add the task to DKNBLDL or choose another task to add.

SMW3 20028 Entry Type must be “P” or “H”. Please try again.

Explanation: The specified entry type is invalid.

Severity: Error

Operator Response: Specify either “P” for prime entry or “H” for HSRR entry.

SMW4 00006 Reorganization of this Model Database is recommended.

Explanation: The Model Workflow Database has become fragmented due to many writes and deletes. Reorganization eliminates this fragmentation.

Severity: Informational

Operator Response: For information on reorganizing the workflow databases, see that section in this document.

SMW4 00007 Model Database is empty. Migration required.

Explanation: The Model Workflow Database with the search criteria that you have selected is empty.

Severity: Informational

Operator Response: You may either Generate workflows into this database by pressing PF9 or you may Migrate workflows into this database from another database. For information on migration of workflows, see “Workflow Migration” on page 1-8. For information on generation of workflows, see “Workflow Generation Function” on page 1-4.

SMW4 00008 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMW4 00009 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMW4 00010 No Model Records have been (S)elected. Please try again.

Explanation: You have asked to migrate model workflows, but no workflows have been selected to migrate.

Severity: Informational

Operator Response: Select model workflows to migrate by typing an “S” beside the entry on the screen and press PF6 to migrate. For HELP press PF1.

SMW4 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW4 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW4 10004 Page number must be numeric. Please try again.

Explanation: You have typed in a page number that is not numeric.

Severity: Warning

Operator Response: Type in a numeric Page number.

SMW4 20003 Insufficient authority to perform this function.

Explanation: You have asked to perform a function that you do not have authority to perform.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW4 20005 Update can NOT be performed in production environment.

Explanation: You are attempting to update Model Workflow that is in the Production database. Model Workflows in the Production database cannot be edited or deleted.

Severity: Error

Operator Response: If you wish to change a Model Workflow in the Production database you must first change it in another database and migrate it to Production.

SMW4 20011 *xxxxxxxx* **attempted unauthorized WFL Delete.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Delete function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW4 20012 *xxxxxxxx* **attempted unauthorized WFL Edit.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Edit function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW4 20013 *xxxxxxxx* **attempted unauthorized WFL Migrate.**

Explanation: Operator *xxxxxxxx* has attempted to do the WFL Migrate function but does not have RACF authority to perform this function.

Severity: Error

Operator Response: See your CPCS supervisor or CPCS programmer. If you need to perform this function, you must be added to the RACF security file for this function.

SMW5 00003 This is the first page of data to display.

Explanation: You have asked to scroll up, but you are already at the top.

Severity: Informational

Operator Response: None

SMW5 00004 This is the last page of data to display.

Explanation: You have asked to scroll down, but you are already at the bottom.

Severity: Informational

Operator Response: None

SMW5 00005 UPDATE successfully processed.

Explanation: You have requested a Model Workflow be updated and the request was processed successfully.

Severity: Informational

Operator Response: None

SMW5 00006 MODEL successfully processed.

Explanation: You have requested to create a new Model Workflow using a Model of another Model Workflow record. Your request has been processed successfully.

Severity: Informational

Operator Response: None

SMW5 00008 DELETE successfully processed. Press ENTER to continue.

Explanation: You have requested that a Model Workflow be deleted from a Model Workflow database. The request has been successfully completed.

Severity: Informational

Operator Response: Press ENTER to continue.

SMW5 00011 Press ENTER to UPDATE...any valid PF key to cancel.

Explanation: Pressing ENTER will update the Model Workflow record. Pressing any PF key will cancel the update.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMW5 00012 Press ENTER to DELETE...PF3 to cancel.

Explanation: Pressing ENTER will DELETE the Model Workflow record. Pressing PF3 key will cancel the DELETE.

Severity: Informational

Operator Response: Press ENTER if you wish to delete the Model Workflow Record. Press PF3 if something is wrong and you wish to cancel.

SMW5 00019 No data to display on next page.

Explanation: You have requested to page forward, but there is no data on the next page.

Severity: Informational

Operator Response: None

SMW5 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW5 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW5 10009 DELETE not allowed for a category default model.

Explanation: You have requested that a Model Workflow be deleted from a Model Workflow database, but the Model Workflow that you have chosen is a default Model Workflow (pass=0). Default Model Workflows cannot be deleted.

Severity: Warning

Operator Response: None

SMW5 10013 Highlighted field(s) are in error. Please try again.

Explanation: You have typed invalid data in the field or fields that are highlighted. For more information, press PF1 HELP.

Severity: Warning

Operator Response: Type over highlighted field or fields with correct data.

SMW5 10016 INSERT not allowed for last task. Please try again.

Explanation: You have requested to insert a task after the last task in a workflow record.

Severity: Warning

Operator Response: Simply type in another task at the end of the list.

SMW5 10018 INSERT not allowed while task path is full.

Explanation: You have requested to insert a task, but the task path list is full.

Severity: Warning

Operator Response: Delete an entry and try again.

SMW5 10021 This task cannot be started by Enhanced System Manager.

Explanation: You have requested to add a task to the Model Workflow record, with auto=1, but this task cannot be started by Enhanced System Manager. To be started by Enhanced System Manager, the task must have SMSTRT=1 in DKNBLDL.

Severity: Warning

Operator Response: Change auto=1 to auto=0 or change the task's entry in DKNBLDL to have the parameter SMSTRT=1.

SMW5 10022 This task can not be tracked by Enhanced System Manager.

Explanation: You have requested to add a task to the Model Workflow record, but this task cannot be tracked by Enhanced System Manager. To be tracked by Enhanced System Manager, the task must have SMTRACK=1 in DKNBLDL.

Severity: Warning

Operator Response: Change auto=1 to auto=0 or change the task's entry in DKNBLDL to have the parameter SMTRACK=1.

SMW5 20007 MODEL attempted for record that already exists.

Explanation: You have requested a new Model Workflow be created using a model, but the new Model Workflow has the same Model Workflow key as an existing Model Workflow. The Model Workflow key consists of the Category, Pass and Endpoint.

Severity: Error

Operator Response: You must change any of the Model Workflow key elements for the new Workflow that you are creating.

SMW5 20014 Task/Version is not on the task profile database.

Explanation: You have requested the Task Profile function, but the Task Profile you are interested in is not on the task profile database.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW5 20015 Tasks following blank entry not allowed.

Explanation: You have requested to update a Model Workflow record with a task that follows a blank entry in the task list. Blank task entries in front of valid task entries is not allowed.

Severity: Error

Operator Response: Delete the blank entry and continue.

SMW5 20017 INSERT not allowed while blank tasks already exist.

Explanation: You have requested to insert a task, but a blank task already exists in the list.

Severity: Error

Operator Response: Delete the blank task and try again.

SMW5 20020 This task was not found in the CPCS DKNBLDL Module.

Explanation: You have requested to add a task to the Model Workflow record, but the task is not in DKNBLDL.

Severity: Error

Operator Response: Add the task to DKNBLDL or choose another task to add.

SMW6 00006 Sort Pattern *xxx* workflows will be replaced by generation.

Explanation: Pressing ENTER will initiate workflow generation for Sort Pattern *xxx*.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMW6 00007 Press ENTER to begin...any PF key to CANCEL.

Explanation: Pressing ENTER will initiate function you are requesting. Pressing any PF key will cancel the function you are requesting.

Severity: Informational

Operator Response: Press ENTER if the data you entered is correct. Press any PF key if something is wrong and you wish to cancel.

SMW6 00008 Workflow Generation was cancelled.

Explanation: You have requested Workflow Generation, but have chosen to cancel the request.

Severity: Informational

Operator Response: None

SMW6 00009 Workflow file was successfully updated.

Explanation: You have requested that a Workflow be updated. The request has been successfully completed.

Severity: Informational

Operator Response: None

SMW6 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW6 10002 Sort Pattern Number must be three digits or "ALL".

Explanation: The Sort Pattern that you entered is not either three digits or "ALL".

Severity: Warning

Operator Response: Enter either a three digit Sort Pattern or "ALL". Press PF1 for Help.

SMW6 10010 Force Indicator must be equal to “Y” or “N.”

Explanation: The Force Indicator that you entered is not either “Y” or “N.”

Severity: Warning

Operator Response: Enter either a “Y” or “N” for Force Indicator. Press PF1 for Help.

SMW6 10011 ALL workflows will be replaced by generation.

Explanation: You have chosen to generate ALL the workflows in the workflow database. All old workflows in this database will be replaced.

Severity: Warning

Operator Response: Press ENTER if you want to replace all the workflows in this database or press any PF key if you wish to cancel.

SMW6 10012 Partial generation completed. Check scroll log.

Explanation: DKNSMW6 encountered an error while generating UOWs. Some UOWs were not generated. The Scroll log and the ESM log should contain more information that will further define the problem.

Severity: Warning

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW6 20003 Error opening the SMSPDEF data set.

Explanation: DKNSMW6 has tried to open the SPDEF file, but has encountered an error.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW6 20004 Error reading the SMSPDEF data set.

Explanation: DKNSMW6 has tried to read the SPDEF file, but has encountered an error.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW6 20005 Error reading the Bank Control File.

Explanation: DKNSMW6 has tried to read the BCF file, but has encountered an error.

Severity: Error

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

SMW6 20013 Entry Type must be “P” or “H”. Please try again.

Explanation: The specified entry type is invalid.

Operator Response: Specify either “P” for prime entry or “H” for HSRR entry.

SMW61 10001 No cat ## **model.** *sssxxxxxxxxxx* **not generated.**

Explanation:

Where:

##	Is the category of a model workflow
sss	Is the sort pattern being generated
xxxxxxxxxx	Is the pass pocket history of the UOW

DKNSMW61 could not find the model workflow for the category indicated.

Severity: Warning

Operator Response: Tell your CPCS Supervisor and CPCS Programmer.

Programmer Response: Verify that the Model workflow exists for the category indicated.

SMW61 00002 *xxxxxxxx* **generated Workflow** *yyyyyyyy* **in** *zz*

Explanation: An ESM workflow entry was generated, where:

xxxxxxxx Operator ID

yyyyyyyy Workflow record key

zz Database level

Severity: Informational

Operator Response: None

SMW8 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW8 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW9 10001 Invalid PF key entered. Please try again.

Explanation: The PF key that you entered is not supported on this screen.

Severity: Warning

Operator Response: Choose a valid PF key. See the PF keys listed at the bottom of the screen.

SMW9 10002 Invalid or blank option code entered. Please try again.

Explanation: You typed in an invalid option code. Press PF1 HELP to see which option codes are valid for this screen.

Severity: Warning

Operator Response: Type in a valid option code.

SMW9 10003 This is the first page of data to display.

Explanation: This is the first page to display.

Severity: Informational.

Operator Response: None

SMW9 10004 This is the last page of data to display.

Explanation: There are no more pages to display.

Severity: Informational

Operator Response: None

SMW9 10005 Page number must be numeric. Please try again.

Explanation: A non-numeric page number was entered.

Severity: Informational

Operator Response: Enter a numeric page number.

SMX05 00001 *xxxxxxxx* **is now (R)eady to be started.**

Explanation: A “manual” task’s status has just been changed to (R)eady, where *xxxxxxxx* is the name of the task.

Severity: Informational

Operator Response: Run the manual task for your installation’s schedule.

SMX09 00001 Tasks after *xxxxxxxx* **started for** *eeee-p-p1-p2-p3-p4-t-sss* **by DKNSMX09.**

Explanation: This message may be output by the Task Completion user exit DKNSMX09. The message indicates that DKNSMX09 set the action characters. These characters indicate that any tasks dependent on the successful completion of the previous task have started, even though the task ended with a non-zero system or user completion code.

Where:

xxxxxxxx The name of the task that completed with non-zero return codes

eeee-p-p1-p2-p3-p4-t-sss The name of the first string associated with the task that ended abnormally

Severity: Informational

Operator Response: None

Programmer Response: More information may be found in both the scroll log and in the ESM Complete Task screens regarding the abnormal termination of the task.

Appendix C. MIS Statistics

This appendix describes how Enhanced System Manager may send statistical information to the IBM product, IBM ImagePlus High Performance Transaction System Application Library Services (ALS), and the MIS Statistics subcomponent. MIS Statistics is described in the High Performance Transaction System ALS documentation.

Overview

Enhanced System Manager MIS Statistics consists of two Enhanced System Manager modules:

- DKNSMMIS
- DKNSMX02

DKNSMMIS - MIS Statistics Processor Module

DKNSMMIS performs the following functions:

- Subscribes to the following events through the event manager:

Event Name	Event Type
FUOWADD	Functional UOW Add
FUOWUPDT	Functional UOW Update
FUOWSCHG	Functional UOW Status Change
WRBCREAT	Work Request Block Creation
WRBSCHG	Work Request Block Status Change
WRBPCHG	Work Request Block Priority Change
WRBUPDT	Work Request Block Update
TLRCREAT	Task List Request Creation
TLRDEL	Task List Request Deletion
TLRCLOSE	Task List Request Close
TLRFREE	Task List Request Free
ENTRYINT	Entry Initialization
ENTRYDEL	Entry Deletion

- Format the MIS record into the MIS self-defining record format.
- Call the Enhanced System Manager MIS User Exit, DKNSMX02.
- Give the formatted MIS record to MIS.

DKNSMX02–Modify or Specify Filtering for the MIS Record

DKNSMX02 may be used to modify the MIS record by the user, or to specify that the record should be filtered out and **not** be sent to MIS. For more information on the DKNSMX02 user exit, see the “User Exit #2 for MIS Statistics Processing” on page 3-19.

Installation

Enhanced System Manager MIS Statistics is installed automatically when CPCS is started, as shipped, if all the supporting MIS modules are installed on the system and the ESM profile member DKNPESM specifies that MIS=YES. If ELRMISTB cannot be loaded, DKNSMMIS will only give the statistic to the MIS user exit, DKNSMX02, which in turn may pass the record to another statistics program. A system message is sent to the supervisor indicating that ELRMISTB was not loaded if an error occurred or if MIS is not installed.

CPCS must be restarted for DKNSMMIS to be used.

User Interactions

As necessary, use the event management SMOF screens to modify the subscribe/unsubscribe DKNSMMIS from events. Careful thought should be given to selectively unsubscribing DKNSMMIS from events, as misleading conclusions may be drawn by other tasks that use the statistics.

Glossary

This glossary defines important terms and abbreviations used in this manual. If you do not find the term you are looking for, refer to the Index or to the *IBM Dictionary of Computing*, New York: McGraw-Hill, 1994.

A

ABA. See *American Bankers Association*.

ABA number. (1) A numbering system devised by the ABA to provide exact identification of financial institutions. The code structure also identifies the Federal Reserve Bank and branch. (2) The MICR-inscribed field on a U.S. document, containing the financial institution identification number.

account number field. An encoded field, on a check or a deposit slip, that indicates the account held by the drawer of the debit or the recipient of the credit.

adjustment. A change to a credit or debit document that adjusts the balance status of a deposit group (or transaction group).

advice. A letter that is sent to a financial institution or customer from whom checks have been received, advising that errors have been detected in the checks or in the listing that accompanied the checks.

ALS. Application Library Services.

American Bankers Association (ABA). Among the functions of this group is the specification of banking industry standards for U.S. check-handling documents and procedures.

amount due field. This field is on some U.K. credit documents, typically utility payments, indicating the amount that is due for payment. It might or might not be the same as the actual amount field which will be encoded by the presenting bank when the credit is paid in.

amount field. An encoded field on an item that represents the amount of that item.

application tasks. Those application tasks that are delivered as part of the base CPCS program product or product feature.

application program task control block (APTCB). A CPCS area created by the applications task (DKNATASK) for every active subtask in the system. This area contains operating system control blocks that are related to the subtask; it also contains addresses and constants used by the CPCS executive programs.

APTCB. Application program task control block.

assist document (AST). A document that accompanies incoming work and that supplies information about the work. A remittance/kill list is an example of an assist document.

AST. Assist document.

automatic restart. The process of restarting (continuing) an interrupted entry without having to find and rebatch any item.

B

balancing. The act of bringing two sets of related figures into agreement (for example, reconciling accumulated-detail totals and input-control totals).

bank control file (BCF). See *BCF (Bank Control File)*

Bank Giro Credit. See *BGC (Bank Giro Credit)*

base CPCS application tasks. See *application tasks*.

basic direct access method (BDAM). An access method used to directly retrieve or update particular blocks of a data set on a direct access device.

batch. The lowest required level that has monetary control established by a control document. See also *Docket Control Voucher (DCV)*.

batch number. The number that uniquely identifies a specific batch of documents.

batch slip. A level of control for balancing items. See also *batch* and *Docket Control Voucher (DCV)*.

BCF (Bank Control File). A CPCS data set that contains control information for multiple bank processing.

BDAM (basic direct access method). See *basic direct access method (BDAM)*.

BGC (Bank Giro Credit). A UK credit document that may be paid in only through a clearing bank. It may be encoded in MICR or in a mixture of MICR and OCR, but the format of the code-line is broadly similar to a check.

block. (1) A prime-pass control level consisting of one or more batches. In CPCS, this control level is used to total multiple batches. A block can also represent work

from a specific source. (2) A data-processing term used to refer to a series of logical records stored contiguously on external storage devices. (3) To insert control documents in preparation for a prime-pass sorter run. See also *data preparation*.

block slip. A level of control for balancing batches. See also *block*.

branch separators (UK). User control documents used to separate work for different branches in on-us output pockets.

buffer. A main storage area used as a data-transfer area for physical records being read or written.

bundle. A bundle is a set of documents grouped together for processing and prefixed, for control purposes, by slips (for example, batch).

C

capture. To read the code line that is inscribed on a document.

cash letter summary. In the U.S., a listing that summarizes kill lists by giving monetary totals and item controls for each kill list. In the U.K., this is referred to as a DCV Summary.

CDMP. Code-line Data Matching Prime.

CDMR. Code-line Data Matching Rejects.

check. (U.K. = cheque) A draft drawn on a financial institution and payable on demand on or after the date indicated.

check number. See *serial/reference number field*.

cheque. UK spelling of “check.”

clearing house. An organization, established by financial institutions in the same locality, through which checks and other instruments are exchanged and net balances settled.

code-line data matching (CDM). A method by which a computer system controls items on a detail level by comparing the internal data records from a previous pass with data that it reads on the current pass.

code-line data matching prime (CDMP). The process of performing code-line data matching during a CPCS prime pass. Document code-line data is matched against DEFT (see also *DEFT*) data transmitted from another bank or a branch of the processing bank.

code-line data matching rejects (CDMR). The process of performing code-line data matching on CPCS prime-pass rejects. Document code-line data is matched against Prime/HSRR codeline data that has been repaired (for example, in OLRR).

code-line data record. See *data record*.

cold start. An initiation of the CPCS region that causes the deletion of the previous contents of the mass data set and the control data sets.

complete task status. This indicates that this task processed successfully for this UOW. See also *task status*.

complete UOW status. This indicates that all tasks in the task list processed successfully or had a bypass status. See also *UOW status*.

component. A set of modules that performs a major function within a system; for example, a compiler or a master scheduler.

component internal data. All data accessible to any modules within a particular component, but not accessible to any part of the system outside this component.

concurrent kill. Producing remittance/kill lists for kill pockets in an entry before the entire entry is processed. The concurrent kill feature is available only with subset processing.

concurrent processing. A system where the processing of prime capture work through subsequent processes (such as reject handling, rehandle sorting, or remittance printing) begins before completing capture for the whole entry.

control block. A storage area that a computer program uses to hold control information.

control document. An encoded document that contains control information, such as the total of the checks that the document controls, the source of the checks, and a code that describes the level of control.

control slip. See *control document*.

control total. The total value or item count for a group of documents.

copy library. A library that contains statements to be modified by the user, accessed by the assembler instruction copy, and inserted into some of the CPCS programs.

correspondent financial institution. A financial institution that carries a deposit balance for, or engages in an exchange of services with, another financial institution.

CPCS. Check Processing Control System International MVS/ESA.

credit. The opposite of a debit. Common examples are deposit slips and utility payments.

cross record. See XREC.

cursor. A small horizontal line on a computer screen that indicates the position to which the next character is transmitted from either the keyboard or the CPU.

cutoff. (1) The financial institution's designated point for balancing or releasing work before processing continues. (2) The designated time after which the financial institution cannot accept work for processing.

cycle. (1) A group of work or an identification of a group of work processed completely as a single entity. (2) A convenient grouping of work. A cycle normally contains a variable number of entries.

D

DASD. Direct access storage device.

data preparation. The preparation of documents for processing by a high-speed check-processing system.

data record. The electronic representation of the code line captured from a check, deposit, debit, credit, or control document. The electronic representation can include additional data to help identify the record.

data set. A single collection of data that can be stored on a computer system.

data space. An area of virtual storage that a program can ask the system to create. The area's size can range from 4K bytes to 2 gigabytes, according to the program's request. Unlike an address space, a data space contains only data. Program code cannot run in a data space. Unlike data in a Hiperspace, data in a data space is directly addressable.

DCIS. Document and Check Image Systems.

DCV. Docket Control Voucher. See also *Docket Control Voucher (DCV)* and *batch*.

DCV summary. A listing that summarizes all of the kill bundles in a DCV summary report by giving monetary and item controls for each remittance list. See also *cash letter summary*.

DCV summary report. Report listing the group of items to be delivered to an endpoint. Grouping of the items is usually by kill bundle.

debit. A transaction that increases an asset or decreases a liability. In normal check-collection terminology, a check is considered a debit.

deferred printing. The method by which data is processed, transferred to a storage device, and later printed (as opposed to printing during the processing of data).

DEFT. See *Document-based Electronic Funds Transfer*.

DEFT input. Electronically captured data that supports processing of paper documents in a code-line data-matching prime pass.

deleted UOW status. This indicates that the string associated with this UOW is deleted. No more processing can be done for this UOW. See also *UOW status*.

deposit slip. A document that details a deposit. The total of the deposit is encoded on the deposit slip. A deposit is considered a credit.

DFD. Data Flow Diagram.

direct access storage device (DASD). A device in which access time is independent of the location of the data.

distributed string (D-string). The distribution task reads I-strings that the MICR task created and produces D-strings. Each D-string contains the records that correspond to all of the documents in a given pocket of the document processor.

divider slip. A control document that is used to separate kill bundles during machine sorting. It can also be used to support the resynchronization of code-line data matching during subsequent-pass processing.

Docket Control Voucher (DCV). A U.K. document used to prefix a batch of documents for exchange between clearing operations. A DCV is considered a Batch Slip by CPCS.

document-based electronic funds transfer (DEFT). The transmission, reception, and processing of code-line data sent or received electronically from another location together with the documents. The data is used in code-line data matching and reconciliation to reduce rejects and balance work.

document processor. A device that can read encoded characters from documents and sort the documents into multiple pockets.

document processor station. A work station consisting of a document processor and a terminal for operator communication.

drawer. The person on whose account a check is being drawn.

D-string. See *distributed string*.

dynamic workflow alteration (DWA). The ESM feature that allows workflows to be dynamically altered at the time a unit of work is created.

E

enclosed and not listed. A condition that exists when an item is in a batch of checks but is not listed on the incoming kill/remittance list or inscriber tape.

encode. To imprint a MICR field on a document. The CPCS database contains the information that is encoded. See also *inscribe*.

encoder. A machine that encodes or inscribes.

endorsement. (1) The signature of the endorser; (2) the stamp of a financial institution or company.

endorser. (1) A person or financial institution, other than the maker, who presents a check for payment. (2) A device that stamps an endorsement.

endpoint. The destination of an item (debit or credit).

enhanced reject processing. The pockets used in this processing are alternate reject pockets, eligible to receive a reject item and/or an unencoded reject item. These pockets are defined in the J sort pattern definition record with values of J, E, and U. respectively.

entry. A variable number of documents that are processed as a single group of work. Normally consists of a number of blocks and batches.

entry number. The number of the first tracer group within an entry.

ERP. See *enhanced reject processing*

error description. The detailed description of an error created, detected, and corrected by the processing financial institution.

exception printing. The printing of only the data that requires action external to a computer.

extended code-line data matching (ECDM). A feature available on the 389x/XP Series document processors. It allows the matching criteria to be changed on a per-document basis (based on the perfectly read fields or on the number of digit errors in a field) and increases the chance of a successful match.

extended process control field (EPC). An optional encoded field that indicates special handling (such as return or truncation).

F

fine-sort. (1) The sorting of items, for example, into account number order for filing. (2) The sorting of items for a single account into serial-number order as a customer service.

fine sort group (FSG). An FSG is a group of documents that have been block-sorted under CPCS for fine sorting. Each FSG has a unique CPCS endpoint and does not enter fine sorting until all work for that FSG has been processed through all preceding passes.

flip-flop. An event that occurs when the volume to which you are writing a file becomes full. The writing continues on a new volume and the full volume is backed up.

float. The portion of a financial institution's total deposits, or of a depositor's account, that represents items (for example, checks) in the process of collection.

flow code. A 3-digit number (mnemonic) that represents an ordered list of tasks.

flow control. The pairing of a CPCS string with a task list through the specification of sort type, pass-pocket history, string type, and flow code.

FSG (fine sort group). See *fine sort group (FSG)*.

full-page printing. A method of page formatting in which items are listed in as many columns as can be contained on the page (for example, the first 50 items in column 1, the second 50 in column 2, and so on).

functional unit of work. This unit of work corresponds to a CPCS string or subset string.

funds availability. The portion of the financial institution's total deposits or of a depositor's account that represents items (for example, checks) that have been collected and are now available. This includes cash deposited and checks drawn on the depositor's financial institution.

G

generated total. The total value or item count of checks that are processed by the computer.

H

held task status. This indicates that this task should be the next task to process, but a condition external to CPCS must complete first. See also *task status*.

high-speed reject re-entry. The re-entering into the document processor of reconditioned documents that have previously been sorted to the system reject pocket (1-1).

Hiperspace. A range of up to two gigabytes of contiguous virtual storage addresses that a program can use as a buffer. Like a data space, a Hiperspace holds only data, not common areas or system data; code does not execute in a Hiperspace. Unlike data in a data space, data in a Hiperspace is not directly addressable.

holdover. (1) Items that were not processed in time to meet their deadline. (2) Items that are held for the next processing cycle.

HSRR. High-speed reject re-entry.

I

image. The captured facsimile (picture) of an item represented in digital form suitable for computer processing and storage, and visual display to an operator.

import/export. The sending of information (export) from one system or application and the acceptance of information (import) by another system or application.

inclearings/inwork. A U.K. term describing checks and credits drawn on your financial institution. Similar to the term “on-us.”

incoming sequence number. A number that defines the incoming sequence of an item within the input stream. This unique number is associated with the item throughout the whole cycle of computer processing.

input string (I-string). A string of documents created by the MICR task. On each document processor run, an I-string is created. The string includes every document read by the document processor, including control documents and rejected documents. Related information, such as the pocket selected, is also stored in each record. The string also includes internally generated control records.

inscriber/inscribe. A machine that encodes and inscribes in a particular format.

interbank settlement sheet (UK). A UK interbank report, produced by Inwork DCV Reconciliation, summarizing the Inwork DCV totals and the settlement figure.

Inwork (UK). Inwork is normally considered to be incoming on-us work from other banks or institutions.

Inwork DCV Detail Report (UK). A report produced by Inwork DCV Reconciliation for each responding bank listing the DCVs and WDs that are being returned.

Inwork DCV Recapture File (UK). A file created by Inwork DCV Reconciliation by recapturing the Inwork DCVs and WDs after balancing. This file is matched against the Inwork DCV Summary File to produce the Inwork DCV Reconciliation File.

Inwork DCV Reconciliation File (UK). A file created by Inwork DCV Reconciliation by matching the Inwork DCV Recapture File against the Inwork DCV Summary File.

Inwork DCV Reconciliation Report (UK). A report produced by Inwork DCV Reconciliation that lists the free and missing Inwork DCVs detected.

Inwork DCV Summary File (UK). A file created by DKNIDCS after the completion of Prime Balancing. It contains details of all DCVs and WDs captured in the Inwork cycle and is input to Inwork DCV Reconciliation.

item-sequence number. A number that defines the sequence of an item within the input stream. This unique number is associated with the item throughout the entire cycle of computer processing.

interface. A named and shared boundary between two functional units, (for example, component interface, subcomponent interface) defined by functional characteristics, or other characteristics, as appropriate.

invocation. Any method of starting a function within a component, subcomponent, or module, such as a direct call with parameters, use of a queue, or event control blocks (ECBs).

in-work. Checks and credits that are drawn on the financial institution that is processing them. Also termed “on-us.”

I-string. See *input string*.

item. A check, deposit slip, or other machine-readable document.

item number. A number that is associated uniquely with a document throughout the processing cycle.

J

jam. A condition that exists when items form a blockage anywhere in the transport mechanism of a document processor.

JGC (Joint Giro Credit) – (UK). UK credit that may be paid in either through a clearing bank or through a post office. The two JGC types are (1) long joint giro, and (2) short joint giro. The only difference between the two types is that the long version has an Amount Due field and the short JGC does not.

job control language (JCL). A control language used to identify a job to an operating system and to describe the job's requirements.

JCL. Job Control Language.

JES. Job entry subsystem.

job entry subsystem (JES). A system facility for spooling, job queuing, and managing input and output.

joggler/jogger. A device that straightens and aligns items before high-speed sorting, principally to line up the lower edge and right side of a group of documents. This device is an integral component of some document processors.

Joint Giro Credit (JGC) – UK. See *JGC (joint giro credit)*.

K

kill. To process items to a point where no further distribution is required. See also *remittance*.

kill bundle. A group of items in a kill pocket, delineated by divider slips, that forms a batch or remittance to another bank. With concurrent kill, this group can span strings. See also *remittance list*.

kill list. A document that accompanies a kill bundle, listing detail and controls for the items.

kill pass. A pass on which items are distributed to their endpoint pockets.

kill pocket. A document-processor pocket assigned to items that are sent and remitted to another bank or destination without further sorting.

L

legal tender. Any money that must, by law, be accepted in payment of debts. A personal check is not legal tender.

link-edit. To use a linkage editor to create a loadable computer program.

listed and not enclosed. A condition that exists when an item is listed on an incoming remittance/kill list or inscriber tape but is not enclosed in the kill bundle.

logical unit (LU). A port through which a user accesses SNA-network functions to communicate with another user on the network.

low-speed transit. The manual sorting and processing of checks.

LU. Logical unit.

LU 6.2. Logical unit 6.2 protocol.

LU 6.2 protocol. An SNA service that receives requests from users and from the system services control point. This service provides session management and other services for sessions between two logical units.

M

MRI. Machine Readable Information

magnetic ink character recognition (MICR). The reading of magnetically encoded data on the 5/8" clear band that runs along the bottom of a document. The MICR system uses ten specially coded digits and four special symbols.

manual restart. The process of physically finding and rebatching, before resuming an interrupted entry, the items to be recaptured.

mass data set (MDS). A file that contains records of all active document strings. This file consists of two direct access data sets: a directory index and a data record set.

master list. A list of all items that are read during a computer pass.

MDS. Mass data set.

merged string (M-string). The M-string, produced by DKNMRGE, represents the merging of images from the prime-pass I-string with corrected reject data. Reports that result from the M-string let you reconcile and balance input to ensure that all items were captured.

MICR. Magnetic ink character recognition.

microfilm number. The assigned item number that is also captured on microfilm.

misread. A condition that occurs when a document processor interprets a character as a good character other than that which actually appears on the document code-line. Also known as *substitution*.

missort. An item that is found in a pocket other than the pocket to which it was sorted. This might be the result of a misread.

M-string. See *merged string*.

Multiple Virtual Storage (MVS). An operating system that consists of MVS/System Product (MVS/SP)* , MVS/ESA*, and the MVS Data Facility Product operating on a System/370 processor.

O

OCR. Optical character recognition.

OLMS. Online manual split.

OLRR. Online reject re-entry.

online fine sort. A computer-controlled sorting of documents (for example, checks) by either or both the account number and the serial number sequence for filing. This process commonly uses code-line data match techniques.

online manual split (OLMS). The process that sorts reject data from the MDS to produce remittance/kill lists and branch reports in the same sequence as manually sorted rejects.

online reject re-entry (OLRR). Manual entry or correction of MICR data through a display terminal.

on-us. Documents belonging to a bank that are sent to its clearing center from other banks or financial institutions. See also *Inwork*.

Optical character recognition (OCR). Character recognition that uses optical means to identify graphic characters.

optional field 1. An optional, encoded field used by some U.S. financial institutions for check truncation. It can also be used for other internal purposes.

outgoing sequence number. A sequence number or unique identification assigned to each item, identifying the kill bundle in which the item left the financial institution.

out-clearing. A U.K. term meaning the sorting of documents to external destinations. The U.S. term is *transit*. See also *outwork*.

Outwork DCV Detail Report (UK). A report produced by Outwork DCV Reconciliation for each responding bank. It is essentially a listing of the Outwork DCV Reconciliation File.

Outwork DCV File (UK). A file produced by Remittance (Kill) processing. It is essentially an electronic version of the Outwork DCV Report (see *Outwork DCV Report*), and is used to power encode DCVs.

Outwork DCV Interbank Settlement Sheet (UK). A report produced by Outwork DCV Reconciliation for each responding bank, summarizing the agreed DCV totals and the figure for settlement.

Outwork DCV Recapture File (UK). A file created by Outwork DCV Reconciliation by recapturing the DCVs returned by other banks. This file is then matched against the Outwork DCV Summary File created on the previous day.

Outwork DCV Reconciliation File (UK). A file created by Outwork DCV Reconciliation by matching the Outwork DCV Recapture File against the Outwork DCV Summary File.

Outwork DCV Reconciliation Report (UK). A report produced by Outwork DCV Reconciliation for each responding bank listing the missing and free DCVs detected.

Outwork DCV Report (UK). A report produced by Remittance (Kill) processing. It is similar to a CPCS cash letter and summarizes a number of kill bundles. It is not sent with the documents but is used to manually encode DCVs.

Outwork DCV Summary File (UK). A file produced by Remittance (Kill) processing. It contains a record for every Remittance (Kill) bundle processed and is grouped by endpoint within a cycle. It is used as input to Outwork DCV Reconciliation when the DCVs are returned by the responding bank on the following day.

out-work. Documents that when processed leave the bank for collection from other institutions. See also *out-clearing*.

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P

pass. A single reading and sorting of a group of checks and control documents on a document processor.

pass-to-pass control. A process that maintains the total amount and item control of a group of documents on subsequent passes, when control has been established on the previous pass.

path. The path of a functional unit of work is the ordered list of tasks processed for the associated CPCS string. See also *flow code* and *flow control*.

pending status queue. A first-in-first-out System Manager queue through which CPCS applications interface to the System Manager, in sequence, to perform UOW creations, deletions, inquiries, and updates.

piggyback item. An item that was missing from its assigned pocket in a sorter and sorted “free” to an unidentified pocket, as when one document attaches itself to or overlaps another during processing.

pocket 1-1. See *system reject pocket*.

PRAD. Propagation of Adjustments.

presenting bank (UK). The presenting bank is the bank sending documents and DCVs and requesting funds for the DCVs.

prime pass. The first pass of an entry on a document processor.

printing after the fact. See *deferred printing*.

process control field. Used in the U.S. by the payor bank to know which process applies to each item. In the UK this field is called “transaction code” and is used to identify document types.

proof. Receives checks that come from tellers, mail and night depository, and internal departments of the financial institution. Proof balances transactions and inscribes or encodes the monetary amount in MICR.

proof of deposit. The act of totalling items at the deposit level and ensuring that the total of the credits equals the total of the debits.

propagation of adjustments. The process of ensuring that adjustments made in Balancing and elsewhere are carried forward to kill/remittance and other system output processes.

R

RACF. Resource Access Control Facility.

RBA. Relative block address.

reconcile. To find and correct the cause of a difference between two sets of totals.

reconciliation. See *balancing*.

reconditioning. The process of straightening folded items, inverting upside-down items, flipping reversed items, and removing any residual staples or rubber bands.

reference (UK). A field encoded on credit documents, corresponding to the 6-digit Serial field on debits. The Reference field may be up to 18 digits in length and (if printed in OCR) may contain alphanumeric characters.

rehandle pocket. A document processor pocket that receives items for multiple endpoints. Items directed to rehandle pockets are processed again on a later pass.

reject. A document that cannot be read in its entirety by a document processor or that fails certain editing checks. This document is normally directed to a special pocket called a reject pocket.

reject string (R-string). Strings that are created by the online reject re-entry task. Each R-string represents checks that have been re-entered online. R-strings are input to the DKNMRGE task.

relationship. Shows the parent/child hierarchy of units of work.

relative block address (RBA). In CPCS, the calculated location of a specific record.

remit. (U.K.) To send items to another financial institution.

remittance file (UK). An MVS data set that is created by Remittance (Kill) processing. It is essentially an electronic version of the remittance list and may be used to support DEFT input processing at the receiving institution.

remittance list (UK). A CPCS Kill List that is produced to support negotiation and settlement of a batch of documents prefixed by a DCV. It is used for conventional interchange between clearing operations.

repass. See *rehandle pocket*.

rerun. A group of items that are sorted into a pocket on one pass and later brought into a document processor for more sorting.

Resource Access Control Facility (RACF). An MVS security subsystem that determines the validity of each operator's ID password and that controls operator access to application tasks and transactions.

responding bank (UK). The responding bank is the bank making payment on documents/DCVs received from the presenting bank.

restart. An initiation of the CPCS system after a system failure. A restart is generally used to start the system (after an abnormal end of a task) to cause the executive routines to re-establish the system to the status that existed before the failures.

restart buffer. An area where records are stored in an IBM 389x/XP Series document processor during online operations until they are sent to the host. The buffer is accessed during automatic restart.

resynch document. A control document used in DEFT processing to match DEFT data to the documents currently being processed on Prime and also used to separate and identify kill bundles on output.

return item. A check that is not honored by the maker's financial institution and that is returned to the depositor's financial institution.

routing/transit number field. An encoded check field that represents the financial institution on which the check is drawn. In the U.K., this is referred to as the *Sort Code*.

S

SCI (Stacker Control Instruction). SCI is the name of a language used to write programs to control the sorting of documents on a 389x document processor.

scroll. The ability to use the DKNSCRL application to page through or look at the scroll data set. This data set includes supervisor terminal messages and DKNATASK log messages.

SDE. string directory entry

separator. See *divider slip*.

sequence number. A number, assigned to a document, that uniquely identifies its position in a group of incoming or outgoing work.

serial field (UK). Equivalent to the check number in the US, this 6-digit field is normally the serial number of a check. On credits, the same field is called a Reference and may be up to 18 digits in length.

settlement. The act of bringing sets of related figures from two financial institutions into agreement. Adjustments are made to offset the differences.

simulated sorter. A CPCS facility that allows a user to run MICR, using an input file without a physical sorter.

slip. A slip is a control document used to prefix bundles for control purposes.

SMOF. System Manager Online Functions.

SNA. Systems Network Architecture.

sort code (UK). Equivalent to the routing transit field in the US, this field identifies the bank and branch to which a debit or credit item belongs. It is in the format *BB-bbbb*, where *BB* identifies the bank, and *bbbb* identifies the branch within that bank. It may be printed in MICR (on checks and some credits) or in OCR (on some credits). If printed in MICR, the two parts of the field are separated by a dash (SS4).

sorter station (also document-processor station). A work station consisting of a document processor and a terminal for operator communications.

sort pattern. A table used by the sort routine to determine the pocket to which a check is to be directed.

sort-pattern definition file. A collection of records that contains control information that MICR in CPCS uses to set up and control document sorting; it also contains data about endpoints.

sort routine. A time-dependent routine that does all processing required to direct a document to a specific document processor pocket.

sort program. A routine that performs all processing required to select a document to a pocket.

spool data set. A data set used to store printed output lines. Each spool (Simultaneous Peripheral Operations On-Line) data set is written by a CPCS application task and is read by the CPCS output writer as it is being printed.

SSB. String status block.

SSM. String segment map.

Stacker Control Instruction (SCI). See *SCI (Stacker Control Instruction)*.

statistics. The processing of unit-of-work (UOW) data through a statistical program. This term can also refer to the processing of unit-of-work data through a user-written statistical program.

string. The data records representing a group of items, for example, an I-string, a D-string, or an M-string. See related definitions for details.

string segment map (SSM). One of three types of segment maps in CPCS. Each string in the system is associated with a string segment map. Each bit in a map represents a segment of direct access storage.

string status block (SSB). This CPCS control block is maintained by the MDS programs for every open string.

STV. See *sub-total voucher*.

subcomponent. Functional subset of a component where subsetting is appropriate based on data use, logic flow, or other factors relating to modules.

subcomponent internal data. All data accessible to any modules within this particular subcomponent, but not accessible to any part of the system outside this subcomponent.

subsequent pass. A pass on which previously sorted items are resorted for further distribution.

subset. A defined portion of an entry, indicated by one or more tracer groups.

subset processing. Processing a portion of an entry beyond the document-entry step before the whole entry is run through the document processor.

subset string. A predefined group of data records that represents a portion of the physical items in an entry. A subset string can contain multiple tracer groups.

substitution. See *misread*.

subtotal voucher (STV). An optional U.K. document that can be inserted into a batch of documents to mark the point at which a cumulative subtotal is printed on the accompanying remittance list.

supervisor. (1) An MVS term used to refer to the system nucleus in internal storage. (2) A person responsible for operation of a financial institution area.

supervisory terminal. A special terminal or operating mode used in CPCS.

System Manager. A subsystem of CPCS that directs and controls the operations.

System Manager Online Functions (SMOF). A set of application-level tasks that monitor and modify the queues and databases of System Manager.

system reject pocket. The first physical pocket on the document processor. It is used by CPCS to hold machine and user-selected rejects.

System Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration of, networks.

T

tab key. A keyboard function key. The tab key causes the cursor to position to the next colon on the screen or to the top of the screen.

task. A CPCS application or function. User-written tasks must be in the CPCS BLDL list.

task list. The ordered list of tasks to be performed for a unit of work. It is determined by selecting the flow code for a given flow control record.

task status. A representation of what will happen, what is happening, or what happened during processing of this unit of work. Can be pending, ready, or complete. See related definitions for details.

task suppression. The ability to hold the execution of an application program with control by ESM.

total system. A system in which the computer is used for all phases of an operation.

tracer. A check-processing document used to provide pass-to-pass control.

tracer group. A grouping of documents between sets of tracers for control purposes. If subset processing is in operation, this tracer group normally becomes a unit of work that can be processed independently of other units of work within that entry.

transaction code (UK). Similar to the Process Control Field in the US, this 2-digit field identifies debit, credit and control document types. A blank transaction code is a valid identifier for a check.

transit. The sorting of checks to external destinations. See also *out-clearing* and *outwork*.

U

unit of work (UOW). A logical entity that the System Manager uses to track a piece of work through CPCS. It can be informational or functional. See also *functional unit of work*.

UOW. Unit of work.

UOW status. This status represents the state of a unit of work and its associated string. Can be pending, ready, or complete. See definitions for details.

V

virtual storage access method (VSAM). An access method for indexed or sequential processing of fixed or variable-length records on direct access storage devices.

Virtual Telecommunications Access Method (VTAM). A set of programs that control the communication between terminals and application programs.

VSAM. See *virtual storage access method*.

VTAM. See *Virtual Telecommunications Access Method*.

W

warm start. An initiation of the CPCS system, causing the contents of the MDS and the control data sets to be retained. A warm start is generally used for restarting CPCS after a normal ending.

WD (wrongly delivered) – (UK). Items (debits or credits, not DCVs) that have been dispatched to the wrong bank. They are returned rather than redirected.

XREC. The dynamic control block that maps the string data at various points in the system. It cross-records or maps the string as it is in the data base, or as it is in the data space.

work. Any document or group of documents that CPCS processes.

work flow. An ordered list of tasks for a specific CPCS string. Each CPCS string must have a work flow.

Z

zero-balancing. The procedure that ensures that generated totals for a group of items plus any documented errors minus the control total equals zero.

Numerics

3890/XP Document Processor. A document processor in the 3890/XP Series of document processors that can read and sort documents at a rate of up to 2400 documents per minute.

3890/XP Series document processors. A series of high-speed document processors that can read and sort up to 1000, 1700, or 2400 documents per minute. These document processors include the IBM 3890/XP Document Processor, the IBM 3891/XP Document Processor, and the IBM 3892/XP Document Processor.

3891/XP Document Processor. A document processor in the 3890/XP Series of document processors that can read and sort documents at a rate of up to 1700 documents per minute.

3892/XP Document Processor. A document processor in the 3890/XP Series of document processors that can read and sort documents at a rate of up to 1000 documents per minute.

3892/XP Power Encoder Feature. An optional device that can be attached to the 3892/XP Document Processor to encode the MICR code-line field on a document.

Bibliography

The publications in this bibliography contain information related to Enhanced System Manager.

Check Processing Control System 1.11 Publications

The publications in the following list are related to the IBM CPCS 1.11 product:

- *CPCS Installation Guide*, GA34-2178
- *CPCS General Information*, GH20-1008
- *CPCS Online Adjustments Guide*, GC31-2723
- *CPCS Customization Guide*, SC31-2853
- *CPCS Terminal Operations Guide*, SH20-1229
- *CPCS Messages and Codes*, SC31-4004
- *CPCS Programming and Diagnostic Guide*, SC31-2854

Check Processing Control System International MVS/ESA Publications

The following publications are related to the IBM CPCS-I MVS/ESA 1.0 product.

- *CPCS-I MVS/ESA: General Information*, GC31-2944
- *CPCS-I MVS/ESA: Installation Guide*, GC31-2942
- *CPCS-I MVS/ESA: Terminal Operations Guide*, SC31-2946
- *CPCS-I MVS/ESA: Programming Guide*, SC31-2948
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ACF/VTAM Publications

The following publications are related to the ACF/VTAM* Version 3 Release 4 product:

IBM ACF/VTAM Programming, SC31-6436

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Document Processor Support Publications

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IBM 3890/XP Series Document Processor General Information, GA34-2012

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To help you find other MVS library references for various release levels, check:

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MVS/ESA System Product Version 5 Library Guide with JES2, GC28-1423

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IBM Resource Access Control Facility Master Index, GC28-1035

IBM Resource Access Control Facility Security Administrator's Guide, SC28-1340

IBM System Programming Library: Resource Access Control Facility, SC28-1343.

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