SEE/Change

Change Management for the AS/400

Version 4.2

7

Audit Manager

User and Reference Manual

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What is SEE/Change Audit Manager ?

The Audit Manager incorporates a set of enquiry functions that allow viewing and analysis of information about the transactions affected in the context of the change management cycle activities.

For whom is SEE/Change Audit Manager intended ?

The Audit Manager is intended to be used primarily by auditors who need to verify management of software changes, and by project leader and change control co-ordinators who need to verify the status of change of a specific application or application part.

All Audit Manager functions, apart from statistics related functions, are integrated and documented in the *Development, Change* and *Release Managers*.

What this manual assumes you already know

It is assumed you have a working knowledge of the AS/400 and are familiar with its operating system OS/400, in particular the following features:

- libraries
- objects and object types
- physical file and source file members
- message handling
- jobs and job logs

Please refer to the appropriate OS/400 manuals for further information about the above topics.

It is also assumed you have a general working knowledge of SEE/Change. A separate manual entitled *SEE/Change General Introduction* contains information common to all SEE/Change modules, including the following items you should be familiar with:

- common command keys
- using list panels and pull down menus
- using entry panels, prompting and pop up windows
- using online help
- handling messages
- submitting batch jobs

Audit Manager functions

Following are the main Audit Manager functions:

- Function DSPOBJHST (Display CR Object History) allows you to view the change history for a selected application part, the Investigation Request (IR) and Change Request (CR) context and the movement transactions of the part.
- Function LSTINVRQS (List Investigation Requests) allows you to list IRs, using various report formats and selection criteria.
- Function LSTCHGRQS (List Change Requests) allows you to list CRs, using various report formats and selection criteria.
- Function DSPSTT (Display Application Statistics) allows you to view change management statistics for each application.
- Function UPDSTT (Update Thenon Statistics) allows you to close the current statistics period and accumulate change management statistics for each application.

Audit Manager menus

```
SEEAUD
                          THENON/SEE Audit Manager
                                                           System:
                                                                     TSPLSYD
Select one of the following:
    1. Display Object History
   11. List Investigation Requests
   12. List Change Requests
    21. Display Statistics
   22. Update Statistics
   60. More Audit Manager Options
   61. User Defined Options
Selection or command
===>
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
F13=User support
                    F16=System main menu
```

Option 60. More Audit Manager Options will take you to secondary menu SEEAUD2.



Option **50. Change Batch Submit Defaults**. Refer to *SEE/Change General Introduction* for further information about submitting jobs to batch.

Investigation Requests (IRs)

The Investigation Request (IR) is the entity that contains details about a problem or request raised with the Information Systems (IS) department.

An IR is raised at the development centre responsible for the application area relating to the request. After the IR is raised, the development centre is referred to as the *IR originating development centre*.

IRs are uniquely identified by an IR number. This is the system code of the originating development centre where the request is lodged, followed by a sequentially allocated six-digit number that is unique within the originating development centre.

After an IR is created, following the investigation process, IS staff can progress the IR using the *Change Manager*:

- If the reported problem or request does not require any software changes, the IR can be closed with reference to a different IR, or it can be closed with a text document clarifying the problem.
- If software changes are required, one or more Change Requests (CRs) can be opened under the IR.

For a detailed description of IRs, refer to Displaying IR/CR details on page 7-33.

IR status codes

The following table shows the various IR status codes:

IR Status Code	Description		
*ENT	IR entered, no action yet		
*VST	IR under investigation		
*CRS	One or more CRs have been created under the IR, and one or more of these are currently under development.		
*REF	IR is closed with reference to another IR (no CRs created)		
*TXT	IR is closed with textual response only (no CRs created)		
*CMP	IR is closed. All CRs created under the IR have been promoted to Live/Production		

- When an IR is entered it is created with the status of *ENT.
- When you create the first CR under the IR, the status is automatically changed to *CRS.
- When all CRs under the IR have been completed, that is, they have all been successfully promoted to the Live/Production environment at the development centre, the IR status is automatically changed to *CMP.

Change Requests (CRs)

The CR is the basic operational unit of the change management cycle. The CR entity allows work areas to be established, source members to be compiled and objects to be retrieved and modified.

Up to 99 CRs can be opened under any one IR. The CR reference number is automatically generated by the system. It is an eight-digit number comprising the IR number suffixed by a two-digit CR sequence number between 01 and 99.

Each CR is associated with only one application. If software changes are required to be carried out for multiple applications under the same IR, multiple CRs must be opened; one for each application. An application part can be registered for change under the CR in the *Development Manager*. All application parts registered under any one CR are handled as one unit.

Object reference id

Each application part is internally associated with an *object reference id*. Each object reference id defines the following change management attributes:

- The type of originating and target library associated with the part, which can be program library (*PGM) or database library (*DB).
- Whether the application part is implemented as an AS/400 object, an AS/400 source member, or as both an object and a source member.
- The AS/400 object type and attribute, for parts implemented as objects.
- The default source file name, source type, and source record length for parts implemented as source members.
- The source usage type, for parts mplemented as source members. This can be one of the following:

*COMPILE	Source member is used to compile an object, for example, RPG specifications.
*MEMO	Source member is used as a memorandum, for example, program specifications or internal documentation.
*INTERPRET	Source member is used as run-time data (interpretive source), for example, REXX specifications.
*CPYREF	Source member is used as compile time copy reference, for example, member referenced in /COPY statement in RPG program.

Source levels

For an application part implemented as a source member, or as both an object and a source member, you can manage the change management cycle within the same application on three different levels. When you retrieve and register the application part, you identify the part source level.

The following describes the various source levels:

- ***BAS** Application base level Parts on this level are designated as the application core, and are delivered to all network locations where the application is used.
 - Parts targeted at program libraries are delivered to the core application program library at each system where the application is used.
 - Parts targeted at database libraries are delivered to each of the database libraries associated with the sites configured for the application at each system.
- ***SIT** Site specific level Parts on this level are designated for use by a specific site, and are delivered to the specified site only.
 - All parts, both those targeted at program libraries and those targeted at database libraries, are delivered to a library specially designated to contain **site specific programs**.
- ***GRP** Site group level Parts on this level are designated for use by a group of network sites, and are delivered to all sites belonging to the group.
 - Parts targeted at program libraries are delivered to a library specially designated to contain **group specific programs** at each of the systems that includes one or more sites belonging to group.
 - Parts targeted at database libraries are delivered to each of the libraries specially designated to contain **site specific programs**.

Application parts that are not associated with source members (like data areas, job descriptions, job queues) are always treated as application base objects (*BAS).

The availability of site and group specific levels is determined by the application configuration and the restrictions that can be specified when the CR is created.

Promoting CRs through the change management cycle

There are four environments that are implicit to the change management cycle. They are:

- ***DEV** The CR development environment, which is the collection of CR work libraries at the application development centre system.
- ***MDL** The Module/Integration environment is optional and can only be defined at the application development centre system. It is typically used by programmers and project leaders for Module and Integration testing.
- *ACP The Acceptance/QA environment is optional and can be defined at both the application development centre system and at one or more remote production systems. It is typically used by end-users for Acceptance and Quality Assurance testing.
- *LIV The Live/Production environment is mandatory for every application used at both the development centre system and all remote production systems.

The following diagram illustrates the structure of the change management cycle:



CR status codes

A status code is maintained for each CR. When you create a CR, its status is set to *DEV. The status code and status last change date are updated as the CR is promoted through the change management cycle. The following table describes each of the possible status codes:

Status Code	Description	
*DEV	Under development	
*TST	Ready for testing	
*ERM	Errors detected while being promoted to the Module/Integration environment	
*MDL	In the Module/Integration environment	
*ERA	Errors detected while being promoted to the Acceptance/QA environment	
*ACP	In the Acceptance/QA environment	
*RDY	Ready for Release	
*ERL	Errors detected while being promoted to the Live/Production environment	
*LIV	In the Live/Production environment	

When the CR promote job is submitted for execution, the CR status is changed to indicate an error status. If the job ends successfully, the CR status code is updated to reflect the current CR location within the change management cycle. If the job ends abnormally, the CR error status is left unchanged.

When the CR movement/promote job is queuing for execution, or when it is active, an additional movement-in-progress (MIP) code is maintained against the CR. The following table describes each of the MIP codes:

MIP Code	Description	
*Q/M	Queuing for promotion to the Module/Integration environment	
*X/M	Executing promotion to the Module/Integration environment	
*Q/A	Queuing for promotion or installation into the Acceptance/QA environment	
*X/A	Executing promotion or installation into the Acceptance/QA environment	
*Q/L	Queuing for promotion or installation into the Live/Production environment	
*X/L	Executing promotion or installation into the Live/Production environment	
*Q/R	Queuing for release packaging	
*X/R	Executing release packaging	
*Q/B	Queuing for backout and revert to development	
*X/B	Executing backout and revert to development	

When you display the CR details, its current status is shown against the item entitled: **Current Status / Date**. If the CR is currently being promoted, its MIP code is shown against the item entitled: **Movement in Progress**.

Text documents

There are three types of text documents associated with the change management cycle. You can access these documents from the main list panel of function DSPOBJHST:

User text	This document is designed to be used by end users and/or staff responsible for user liaison to supply information to IS describing end user's requests or problems. User text is associated with the IR. Against each IR one user text document can be maintained. User text is always included in the release packet and is distributed to remote systems. User text can be entered using the <i>Problem Manager</i> ; you can display it using action option 27=User text .
IS text	This document is designed to be used by IS staff responsible for user liaison to supply information in response to user requests and problems. It can be used to clarify a problem that does not require any software changes, or to provide instructions and guidelines to compliment the software changes that were effected against the IR. Against each IR one IS text document can be maintained. IS text is always included in the release packet and is distributed to remote systems. IS text can be entered using the <i>Change Manager</i> ; you can display IS text using action option 29=IS text .
Development text	This document is designed to be used by technical staff to provide technical documentation for internal IS purposes. Development text is associated with the CR. Against each CR one development text document can be maintained. Generally, the development text is intended to be used as an internal IS document, but it can be collected into the release text that is maintained when a software release is created. Development text is usually entered via <i>Development Manager</i> ; you can display Development text using action option 28=Dev text .

Object movements

When the CR is promoted, each of the application parts registered under the CR are manipulated. The following explains a number of critical issues relating to these manipulations.

Each application part is internally associated with an *object reference id*. Each object reference id defines a number of change management attributes, such as the type of the originating library and the type of the target library associated with the part, which can be a program library (*PGM) or a database library (*DB).

Progress of an application part through the environments configured for the application depends on:

- ! the object reference id
- ! whether the part is targeted at program libraries or database libraries.

If a **program** is promoted to the Module/Integration environment, it is duplicated from the CR work library into the *MDL program library. If the same program is then promoted to the Acceptance/QA environment, it is **moved** from the *MDL program library to the *ACP program library.

If a **database file** is promoted to the Module/Integration environment, it is duplicated from the CR work library into the *MDL database library. If the same database file is then promoted to the Acceptance/QA environment, it is **duplicated** from the *MDL database library to the *ACP database library.

The general assumption is that the library list associated with the target environment has been structured to allow for **multiple** program libraries to be searched to resolve a program object, and **a single** database library containing all the data associated with the environment.

For further details about library list structures, refer to *Job descriptions and library lists* in *Configuration Manager User and Reference Manual.*

Movement logs

At each network location SEE/Change holds central repository for all local application part movement transactions. One movement record is recorded for each application part promoted or installed. If, for example, a database object is promoted into a number of database libraries, a record is written for each of these target libraries. These transactions are removed from the system when either function PRGMVTLOG (Purge Movement Logs) or PRGCHGDTA (Purge Change Management Data) are executed.

You can view the movement transaction information using action option **20=Movements** from the main list panel of function DSPOBJHST.

Whenever a CR is promoted or installed locally, at either the development centre system or at remote production systems, two reports are automatically generated:

Error Log Shows a list of messages that were generated in the course of promoting or installing the CR. If an error is encountered, the corresponding error message is listed in this report. Other messages indicate the job start, the job completion and any messages generated by user-defined processes attached to the CR like *BEFORE and *AFTER processes, or user defined processes associated with the object. For a further description of these processes refer to *Development Manager User and Reference Manual*.

Object Log Shows a list of application part movements affected by the promote or install job, extracted from the local movement repository. You can reproduce this report using function LSTMVTLOG (List Movement Logs).

The transaction number uniquely identifies each transaction record. For each transaction, the transaction type code indicates the context and purpose of the transaction, the operation code indicates the type of manipulation that was executed, and the completion code indicates whether the operation has been successful or has terminated with errors. The following tables show the various codes and their meaning.

Movement transaction types

The following table shows all the movement transaction types used internally by the SEE/Change and recorded in the movement logs.

Movement Transaction Type	Movement description		
*ACP	Promote to Acceptance/QA environment		
*ARC	Archive from Live/Production environment		
*ARP	Archive from live source pool (at the development centre system)		
*DCR	Delete CR work library		
*IAC	Install to Acceptance/QA environment (at remote production systems)		
*ILV	Install to Live/Production environment (at remote production systems)		
*LIV	Promote to Live/Production environment		
*MDL	Promote to Module/Integration environment (at the development centre system)		
*RDV	Backout and revert to development		
*RLS	Create release packet		
*RSL	Restore from archive to Live/Production environment		
*RSP	Restore from archive to live source pool (at the development centre system)		
*RST	Restore from Live/Production to Acceptance/QA and Module/Integration databases		
*SRC	Promote source member to live source pool (at the development centre system)		

Movement operation codes

For any one transaction, SEE/Change may execute one or more actual operations. The operation code identifies the main operation for the transaction.

Movement Operation Code	Operation description
*BYP	Bypass site database due to overrides
*CPL	Compile source member
*CPY	Copy source file
*DLT	Delete object and/or member
*IGN	Bypass for concurrent development
*DUP	Duplicate object and/or member
*LNS	LANSA export/import
*MOV	Move object and/or member
*MRG	Merge message file

Movement completion codes

The completion code indicates whether the transaction operations have completed successfully, whether warnings exist, or whether errors have caused one or more operations to end abnormally. One or more transactions with error completion codes cause the whole CR promote operation to be considered as an operation that ended abnormally, and the CR status to be updated with an error code.

Movement Completion Code	Completion status description		
*CHK	Movement completed OK, but work library could not be deleted		
*E00	Associated record in error		
*E01	Error - Object not found		
*E02	Error - Originating library not found		
*E03	Error - Target library not found		
*E04	Error - Target source file not found		
*E05	Error - Cannot determine work library name		
*E06	Error - Work library prefix not configured		
*E10	Error while duplicating object into target library		
*E11	Error while moving object into work library		
*E12	Error while moving object into target library		
*E13	Error - Not all based-on PFs are in same libary		
*E14	Error while renaming object or member		
*E15	Error while merging message file		
*E16	Error while deleting object		
*E17	Error while retrieving based-on files		
*E18	Error - File does not have any members		
*E19	Error while archiving object		
*E20	Error while creating movement work library		
*E21	Error while creating archive library		
*E22	Error - Cannot delete work library object		
*E23	Error - Cannot delete work library source member		
*E24	Error while moving source into work library		
*E25	Error while removing target source member		
*E30	Error while duplicating data members		
*E31	Error while adding members		
*E32	Error while copying data		

Movement Completion Code	Completion status description	
*E40	Error while delivering source	
*E41	Error while archiving source	
*E50	Error while clearing outq in CR library	
*E59	Error while deleting CR library	
*E60	Error while compiling source member	
*E61	Error while changing LIBL for compile	
*E62	Error while executing source embedded commands (*OMX)	
*E80	Error while applying object authority	
*E82	Error executing user-defined object process	
*E98	Error - Object reference id not found	
*E99	Error - Unspecified error encountered	
*INZ	Movement initialised. Completion status unknown	
*NMB	Warning - No data members in file	
*OK	Movement completed OK	
*PRC	Included in previous CR in the same release packet. Object bypassed	
*PRV	Previous run OK. Object bypassed	
*RDV	Movement backed out for re-development	
*ZRO	Warning - No records in data member	

All movement/promote requests end with a message indicating the completion analysis, and show the following completion status counts:

*CFG The number of movements that ended in error due to missing or incomplete configuration data.

- ***ERR** The number of movements that ended in error due to environment problems.
- *CHK The number of movements that ended normally, but the associated temporary movement library could not be deleted. This is typically the result of one or more unresolved database dependency problems within the movement work library, which can occur if CR library check warnings are ignored, and one or more dependent logical files have not been included in a CR that contains the based-on physical file.
- ***OK** The number of successful movements.

If one or more movements have completed with a status of *CFG or *ERR, the CR is updated with an error status code (*ERM, *ERA or *ERL).

If all movements have completed with a status of *OK or *CHK, the CR is updated with a status code that indicates its current location within the change management cycle (*MDL, *ACP or *LIV).

Archiving

The archiving feature allows the retention of objects and source members replaced in the Live/Production environment, and the restore of these parts in the context of reverting to development CRs that have been promoted to the Live/Production environment.

The archiving feature is most useful in circumstances where the CR has been promoted into the Live/Production environment, and sometime later it has become necessary, due to problems with the new software, to re-instate the live environment as it existed before the CR was promoted.

Movement transaction logs

The following movement transaction types are generated when an object or source member is archived:

- *ARC This transaction type is generated for an archive operation of an object from the Live/Production environment, or an archive operation of a source member from the default source file name in the Live/Production environment. Typically, this transaction type is generated prior to the corresponding *LIV (promote to live) or *ILV (install to live) transaction.
- ***ARP** This transaction type is generated for an archive operation of a source member from the application source pool at the development centre. Typically, this transaction type is generated prior to the corresponding *SRC (promote source to source pool) transaction.

The following movement transaction types are generated when an object or a source member is restored:

- ***RSL** This transaction type is generated for a restore operation of an object from the archive library to the Live/Production environment, or a restore operation of a source member from the archive library to the default source file name in the Live/Production environment.
- ***RSP** This transaction type is generated for a restore operation of a source member from the archive library to the application source pool at the development centre. For application base objects (source level *BAS), source members are always restored to source pool *BAS-1, regardless of the originating pool.
- ***RST** This transaction type is generated for a restore operation of a database object from the Live/Production environment to the Acceptance/QA or Module/Integration environment, or a restore of an interpretive source member from the Live/Production environment to the Acceptance/QA or Module/Integration environment.

New application parts

When a new application part is promoted to Live/Production, no archiving is performed since there is no previous version in the Live/Production environment.

When you revert the CR after it was promoted to Live/Production, the part is deleted from the Live/Production environment. Transaction types *RSL and *RSP are generated to log this deletion; the movement operation code is shown as *DLT (delete) instead of the normal operation code of *DUP (duplicate) or *MOV (move).

Viewing movement logs

You can view the movement transaction information using action option **20=Movements** from the main list panel of function DSPOBJHST. You can verify archiving history and determine the availability of archived objects. This is useful for audit purposes.

You should note the following:

- For transaction types *LIV and *ILV you can see the name of the work library used. If archiving was active at movement time, the same library name appears as the target library on a prior *ARC transaction.
- At the development centre, for transaction type *SRC you can see the name of the work library used. If archiving was active at movement time, the same library name appears as the target library on a prior *ARP transaction.
- For transaction types *ARC and *ARP, the transaction status also indicates whether the archived parts are **currently** available.
- For all transaction types you can see whether configuration overrides were used at the time of the movement.

Software releases

A software release is a collection of CRs (Change Requests) that are ready for release to either the Acceptance/QA or the Live/Production environment at one or more of the remote production systems in your network.

Releases are uniquely identified by a release number. This is the system code of the originating development centre where you create the release, followed by a sequentially allocated five-digit number that is unique within the originating development centre.

Monitoring release distribution and implementation

The *Release Manager* handles the allocation of CRs to a release, and the packaging and distribution of releases.

After a release has been distributed, you can monitor the CR distribution status using action option **9=RIs distrib** from the main list panel of function DSPOBJHST. A window is displayed showing a list of all release packets that contain the selected CR, and their current status.

The list shows an item for each combination of target system and target environment. Against each item you can see the date the release packet was created and the selected distribution method:

TAPE Release packet distributed using magnetic tape.**COMS** Release packet distributed via the *Communication Manager*.

Whenever a CR is installed, or is promoted at a remote production system, the completion details of that operation are communicated back to the development centre system, so that change control co-ordinators can monitor, at the development centre, the CR implementation at the various remote systems without having to physically passthrough to each one.

For this information to be sent and received at the development centre system, you must ensure that the QSNADS subsystem and *Communication Manager* subsystem QDMS are both active.

You can use action option **10=Network Sts** from the main list panel of function DSPOBJHST to view this information. The following status items are transmitted back to the development centre system from each remote system:

- The last install/promote operation date.
- The last install/promote type.
- The CR status at the end of the promote operation.
- The release number (as known on the target system).
- The last install/promote job details.

The information is transmitted regardless of whether the release was sent using the *Communication Manager* or via tape.

Change management statistics

Depending on your local management requirements, you will want to periodically generate and view statistical information concerning change management.

Two types of statistics can be extracted:

- Throughput statistics
- Work-in-progress statistics

Refer to Displaying application statistics on page 7-45, and Command DSPSTT on page 7-57.

Throughput statistics

Throughput statistics give an analysis of change management activities for specific time intervals.

A time interval is the period between the previous statistics update and the current statistics update. A cut-off date is the actual date of a statistics update.

Refer to Interpreting the throughput statistics on page 7-47.

Work-in-progress statistics

Work-in-progress statistics provide a *snap-shot* of current change management workloads at specific cut-off dates.

Refer to Interpreting the work-in-progress statistics on page 7-48.

Updating the statistics

Function UPDSTT (Update Thenon Statistics) is used to perform the statistics update. The frequency of the statistics update is determined by your local management requirements.

Command UPDSTT can be incorporated into your local end-of-period processing if required.

Refer to Updating application statistics on page 7-51, and Command UPDSTT on page 7-61.

Displaying application part history

This function allows you to display an application part's accumulated change history. All occurrences of the part within any CR for any application are shown.

How to get into this function

Menu/Option: SEEAUD / 1 Command: DSPOBJHST

Selection criteria

Display CR Ob	oject History	(DSPOBJHST)
Type choices, press Enter.		
Object Name:	Name Character value Character value	
F3=Exit F4=Prompt F5=Refresh F24=More keys	F12=Cancel	Bottom F13=How to use this display

Command DSPOBJHST parameters are prompted.

Object Name	Specify the name of the part for which you need to display CR reference details. This field is mandatory.
Object Type	Specify the object type of the part for which you need to display CR reference details. If you leave this parameter blank, you are shown details for the first part that matches the object name entered.
Object Attrib	Specify the object attribute of the object for which you need to display CR reference details. If you leave this parameter blank, you are shown details for the first part that matches the entered object name and type values.

The following panel is shown. The input fields at the top allow you to change the values of Object Name, Type and Attribute. The Type and Attribute fields, or just the Attribute field, can be left blank and you will be shown history for the first part that matches the data entered.

SEE/Change Testing Environment Display Object History 5-Display CR &=Display IR 9=Rls distrib 10=Network sts 20=Movements 27=User text 28=Dev text 29=IS text Object: DST002____Type (P): *PGM_____ Attr (P): RPG_____ More: Act____CR___App_Level___Rtv_status___Src_file__Src_lib___Ver_Rls__Stat ____SYD 00000401 DST *BAS *CHG 6/12/93 QRPGSRC DSTSRC 003 00002 *LIV _____SYD 00000501 DST *BAS *CHG 3/12/93 QRPGSRC DSTSRC 002 00003 *LIV F1=Help F3=Exit F4=Prompt F7=Prev F8=Next F9=Cmd F10=Action F12=Cancel F23=More options

The list shows all CR registration history records in a descending sequence of version number and retrieval date.

You can use the **F7=Prev** and **F8=Next** command keys to see history for the previous or next part that has the same name but different Type/Attribute to the part whose history is currently shown.

For each history record, the following information is provided:

CR	The development centre system code and CR number.		
Appl	The CR applic	The CR application code.	
Level	The part level	The part level within the application.	
	*BAS	Application base level.	
	*SIT xxx	Site specific level. xxx indicates the site code.	
	*GRP xxx	Group specific level. xxx indicates the group code.	
	All non-source based objects are registered on the *BAS level.		
Rtv status	The retrieval t	ype and date.	
Src File	The chang	originating source file, if the source member was retrieved for ge (rather than initiated as a new source member in the CR).	
Src Lib	The originatin change (rather	g source file library, if the source member was retrieved for than initiated as a new source member in the CR).	

Ver	The source version number.
RIs	The release number, if the CR is allocated to a release.
Stat	The current CR status.

Action codes

You can select one of the following action codes against a history item:

5=Display CR	Show details of the selected CR as entered via <i>Change Manager</i> function WRKCHGRQS. Refer to <i>Displaying IR/CR details</i> on page 7-33.
8=Display IR	Show details of the selected IR as entered via <i>Problem Manager</i> function WRKINVRQS. Refer to <i>Displaying IR/CR details</i> on page 7-33.
9=RIs distrib	Display a window showing CR distribution information, that is, the system(s) to which it was sent, the target environment, and the date and method of delivery. Refer to <i>Displaying CR distribution status</i> on page 7-39.
10=Network sts	Display the current status (that is, latest movement) of the CR at every system to which the CR has been distributed. Refer to <i>Displaying CR network status</i> on page 7-41.
20=Movements	Display movements of the part within the context of the selected CR. All movement/promote transactions that have not been purged are displayed, showing the movement/promote characteristics and completion status. Refer to <i>Displaying application part movements</i> on page 7-29.
27=User text	Display user text. User text is entered when an IR is created. It normally contains a text description of the associated problem or request being raised.
28=Dev text	Display development text. Development text is associated with the CR. It is an internal IS document containing technical information associated with the CR work.
29=IS text	Display IS text. IS text is associated with the IR, and is maintained by change control co-ordinators. It enables IS to respond to user problems, and/or provide additional information for the users regarding the fixes provided by IS.

Displaying application part movements

This function allows you to display the movement transaction logs of an application part within the context of the current CR. All movement/promote transactions that have not been purged are displayed, showing the movement/promote characteristics and completion status.

How to get into this function

Menu/Option:	SEEAUD / 1, then option 20=Movements
Command:	DSPOBJHST

List panel viewing and manipulation

	SEE/Chan Display	ge Testing 1 CR Object 1	Environment Movements	
5=Display 6=P 63=Completn cd	rint 12=W	rk job	61=Movment cd 62=0	Dperatn cd
CR: SY1 100353 / 01	Object: BASPF	*FILE	PF	
Act Date & Time 	Type Frm Lib *SRC T#10035301 *ARP AP1SY1POOL *LIV AP1SY1DA0 *LIV AP1SY1DA0 *LIV AP1SY1DA0 *ARC AP1SY1DL0 *ACP AP1SY1MDL *ACP AP1SY1MDL *ACP AP1SY1MDL *MDL T#10035301	To Lib APISY1POOL V00000514 APISY1DL2 APISY1DL1 APISY1DL0 V00000512 APISY1DA2 APISY1DA2 APISY1DA1 APISY1DA0 APISY1MDL	Oper Comp Trans Nbr *CPY *OK 000009708 *DUP *OK 000009707 *BYP *OK 000009695 *BYP *OK 000009694 *DUP *OK 000009692 *MOV *OK 000009691 *BYP *OK 000009691 *DUP *RDV 000009693 *DUP *RDV 000009691 *DUP *RDV 000009688	Rls Envr
Fl=Help F3=Exit F4	=Prompt F5=Refr	esh F9=Cmd	F12=Cancel	Bottom

The list is shown in descending transaction date and time. Each movement/promote of a part into a target library is uniquely identified by a transaction number.

For each transaction, the following information is provided:

Date and Time	The date and time of the movement/promote operation.		
Туре	Movement/promote type. You can use option 61=Movment cd to display the valid movement/promote type codes and their meaning.		
Frm Lib	The originating library.		
To Lib	The target library.		

Oper	The operation type. You can use option 62=Operatn cd to display the valid operation codes and their meaning.	
Comp	The movement/promote completion status. You can use option 63=Completn cd to display the completion codes and their meaning.	
Trans Nbr	The movement/promote transaction number. Each movement/promote is uniquely identifiable by its transaction number.	
RIs	The release number if the movement/promote is performed in the context of release packaging or release delivery.	
Envr	The release target environment, if release number is shown:*ACPAcceptance/QA Environment*LIVLive/Production Environment	

Action codes

You can select one of the following action codes against a transaction:

5=Display	Display full details for the transaction. All movement/promote details for the part, originating and target libraries, source files and duplication of data members are shown. Refer to <i>Movement details</i> on page 7-31.
6=Print	Print movement transaction logs for the CR. Command parameters are prompted. Refer to <i>Command LSTMVTLOG</i> on page 7-59.
12=Wrk job	Work with the job details (WRKJOB command) of the job that effected the part movement/promote, if the job is still in the system.
61=Movment cd	Show the movement/promote type codes and their meaning
62=Operatn cd	Show the movement/promote operation codes and their meaning.
63=Completn cd	Show the movement/promote completion codes and their meaning.

Movement details

You can use **5=Display** against a transaction to display full details of the selected movement/promote. You can see the transaction type and number, the job that processed the transaction, the application, system and site where the movement was executed, the date and time of the transaction, the CR number, the application part being manipulated, the from and to libraries being used, whether configuration overrides were in effect at the time when the transaction was executed, whether the part was replaced in the target library, and if it was - the temporary work/archive library used to store the part being replaced, the type of operation executed and the completion status of the transaction.

```
Movement Transaction Details
Type . : *SRC
Trans : 000009708
                                           Appl . . : AP1
                                                             Site: SY1
Job . : 011978/COX/DSP10
                                           Date/Time: 8/06/95 14:11:32
CR . . : SY1 10035301
                                           Src level: *BAS Use: *COMPILE
Object : BASPF
                    3.TT3*
                              PF
                                           Config overrides used ?: N
                                           Work library name . . : V000000514
Obj/mbr replaced ? . . : Y
From . : T#10035301/QDDSSRC
To . . : AP1SY1POOL/QDDSS01
Oper . : *CPY Copy Source File
Status : *OK Movement completed OK.
F1=Help F3=Exit F5=Refresh F9=Cmd F12=Cancel
```

For database files, in addition to the above, the status of the data member(s) duplication is shown on the lower part of the panel, as shown below:

OMS280C2 TSPLSYD Movement Transaction Details Туре : *ARC Archive from Live Environment Trans : 000000836 Appl : DST Site: SYD Job : 030918/USERX/MOVCR Date/Time: 3/09/93 16:43:17 : SYD 00000402 : DST001 *PGM CR Src level: *BAS Use: *COMPILE Object : DST001 RPG Config overrides used ?: N From : DSTOBJLIV : Y00000007 Obj/mbr replaced ? : N То Oper : *MOV Move Object and/or Member Status : *OK Movement completed OK. Archived obj available F1=Help F3=Exit F5=Refresh F9=Cmd F12=Cancel

When a database file is being delivered to any target library, the existing members and their data are duplicated into the newly installed database file. In the case of logical files, the original member's scope is also applied to each logical file member. The completion status of each attempt to re-instate a database member is shown.

Data and members are not duplicated if re-compilation is specified for the application or is specified in the configuration overrides for the file (that is, the operation code for the movement is *CPL), or if data inclusion is specified in the configuration override for the file.

Displaying IR/CR details

This function allows you to display details of IRs and CRs.

How to get into this function

Menu/Option: SEEAUD / 1, then option 9=Display IR or 5=Display CR Command: DSPOBJHST

The following panel shows IR details:

SEE/Change Testing Environment Work with Investigation Request Details Request number : 100353 Entered by: CHRIS Request Summary Text . . . : CH Testing 19/04/95 15:22:19 Request Detailed Text. . . : 1 2 3 4 5 6 7 8 More... Application (P): AP1 Demo application 1 * Location (P): BEJ IR Category (P): *SOFT User priority (P): *HIGH BEJ-Bejing HQ Software Main function. No alternative. Problem originated date. . : 19/04/95 Fix required by date . . : 0/00/00 F1=Help F3=Exit F9=Cmd F10=Position text F11=Search F12=Cancel F17=Top F18=Bottom

The following panel shows CR details:

Work with Change Request Details Change Request Number . . : 100353 / 01 Change Application . .(P): AP1 I Demo application 1 * Request Summary Text . . . : RC JIS rtvsrc pass 1 cr $\,$ CR Type (P): *BUG Contact Reference . . . : IS Priority (P): *VHI CR CASE Tool (P): *NONE Program Bug Fixing Very High Estimated Hours : Estimated Cost : . . : Assigned User/Grp Profile : QPGMR Planned concurrent dev ? . : *YES *YES/*NO Library list level . . .(P): *BAS Retrieval Restriction . . : *NO Application Base Level *YES/*NO/*LVL Current Status / Date . . : *DEV - Developmnt: Under Development 9/06/95 Assigned Release Number . : 33532 multi member test again F1=Help F3=Exit F9=Cmd F12=Cancel F16=Bypass

Listing Investigation Requests

This function allows you to select and print Investigation Requests. You can select the format of the report you want, and which IRs are printed on that report.

How to get into this function

Menu/Option: SEEAUD / 11 Command: LSTINVRQS

Selection criteria

This panel allows the entry of selection criteria for the production of IR listings. The report type and IR originating system are the only mandatory fields. A valid report type and originating system must be selected.

Report type	You can use F4 to prompt for a list of report types. Valid values are:		
	*FULL	One IR is printed per page of report. Complete details are shown, including user text, IS text, and a list of all CRs created under the IR.	
	*PTXT	Three IRs are printed per page. All IR details are shown, but only the first 15 lines of text are listed.	
	*SUMM	One line is printed per IR. Only summary details are shown.	

IR Orig system The default value is the code of your local system, that is, list IRs that have been lodged at the local development centre. You can use F4 to prompt for a list of other valid codes in your system, and request lists or IRs that have been transferred from other development centres.

The rest of the panel enables the specification of one or two selection criteria expressions against each of the available IR data items. The relational operators *AND/*OR define the relationship between the two expressions for each item.

Each expression consists of an operator and a data constant. The table below shows valid operators for the expressions:

Operator	Description
*CT	Contain (Character string)
*EQ	Equal to
*GE	Greater than or equal to
*GT	Greater than
*LE	Less than or equal to
*LT	Less than
*NE	Not equal to
*NG	Not greater than
*NL	Not less than

After you have entered your selection criteria and pressed Enter, a job control prompt window will pop up enabling you to run the job either interactively or in batch. Refer to *Submitting batch jobs* in *SEE/Change General Introduction*.

Listing Change Requests

This function enables you to select and print Change Requests. You can select the format of the report you want, and which CRs are printed on that report.

How to get into this function

Menu/Option: SEEAUD / 12 Command: LSTCHGRQS

Selection criteria

Enter the selection criteria. Then press Enter.				
Report Type .(P): *SUMM (P)	CR Originating system .(P): SY1 (P)			
Item_DescriptionExp_Value	*AND/*ORExp_Value			
IR Number/CR Seq : *GE /	*AND *LE /			
IR User Reference: *CT	_ *OR_ *CT			
CR Type(P): *CT	*OR_ *CT			
CR Priority .(P): *GE _	*AND *LE _			
CR Status(P): *EQ	*OR*EQ			
CR Status Date . : *GE _0/00/00	*AND *LE _0/00/00			
CR Text : *CT	_ *OR_ *CT			
CR Application(P): *EQ	*OR*EQ			
IR System(P): *EQ	*OR_ *EQ			
IR Site(P): *EQ	*OR_ *EQ			
IR Mal/Function. : ^EQ	*OR_ *EQ			
CR User	*OP *OT			
CR Release No : *GE	_ "OR_ "CI *AND *LE			
Fl=Help F3=Exit F4=Prompt F9=Cmd F12=Ca	ancel			

This panel allows the entry of selection criteria for the production of CR listings. The report type and CR originating system are the only mandatory fields. A valid report type and originating system must be selected.

Report type	Valid values are:			
	*FULL	One CR is printed per page of report. Complete details are shown, including development text, IS text, and a list of all application parts registered under the CR.		
	*PTXT	Three CRs are printed per page. All CR details are shown, but only the first 19 lines of IS and development text are listed.		

CR Orig system The default value is the code of your local system, that is, list CRs that have been lodged at the local development centre. You can use F4 to prompt for a list of other valid codes in your system, and request lists or CRs that have been transferred from other development centres.

The rest of the panel enables the specification of one or two selection criteria expressions against each of the available IR and CR data items. The relational operators *AND/*OR define the relationship between the two expressions for each item.

Each expression consists of an operator and a data constant. The table below shows valid operators for the expressions:

Operator	Description
*CT	Contain (Character string)
*EQ	Equal to
*GE	Greater than or equal to
*GT	Greater than
*LE	Less than or equal to
*LT	Less than
*NE	Not equal to
*NG	Not greater than
*NL	Not less than

After you have entered your selection criteria and pressed Enter, a job control prompt window will pop up enabling you to run the job interactively or in batch. Refer to *Submitting batch jobs* in *SEE/Change General Introduction*.

Displaying CR distribution status

This function allows you to view details of the distribution status of the release to which the CR is allocated. This option is particularly relevant to network installations, where the CR is distributed to selected acceptance testing sites before being moved to the Live/Production environment at each network location.

How to get into this function

Menu/Option:	SEEAUD / 1, then option 9=RIs distrib
Command:	DSPOBJHST

List panel viewing and manipulation

SEE/Change Testing Environment Display Object History 5=Display CR 8=Display IR 9=Rls distrib 10=Network sts 20=Movements 21=CR Auth Hist 27=User text 28=Dev text 29=IS text Object: BASPF_____ Type (P): *FILE_____ Attr (P): PF___ More: CR Nbr App Level Rtv status Src file Src lib Ver Rls Stat Opt _ SY1 10035303 AP1 : Release distribution details : 9_ SY1 10035301 AP1 : CR: SY1 100353/01 RC JIS rtvsrc pass 1 cr : : Release: 33532 multi member test again : ____Envr__Distribution : : Target_System___ : No Release information available. • : : : : CR 100353/03 has no : een allocated to any Release. Bottom : F1=Help F3=Exit F : F1=Help 12=Cancel F12=Cancel F23=Mor :....

The window shows the CR distribution history. The CR number and text, and the release number and description are shown at the top of the window.

The list of release packet history in the lower portion of the window shows:

- The target system
- The target environment
- The distribution date
- The distribution type:TAPEusing magnetic tapeCOMSusing the Communication Manager

Displaying CR network status

This function allows you to display the details of the latest movement/promote operation executed for the CR at every remote production system to which it has been distributed, and the current CR status at that system.

The information shown in this window is transmitted from each remote production system to the CR development centre system. Refer to *Monitoring release distribution and implementation* on page 7-22.

How to get into this function

Menu/Option:	SEEAUD / 1, then option 10=Network sts
Command:	DSPOBJHST

List panel viewing and manipulation

CR Network	Status	Dev Centre: SYD
CR: SYD 000008/02 Picking list summary r	report upgrade	
The following information was received a sites.	at the development centr	e from remote
Target_systemDateMovement_type LON London, En NYC New York C 18/10/93 Instl Acpt/QA	CR _Stat_RlsMovement_jok 00002 (Status info *ACP 00002 034075/JULIE	details not received) //DSP08
F1=Help F3=Exit F5=Refresh F9=Cmd F1	12=Cancel	

This panel shows the movement status for the CR at each target (production) system to which it has been distributed.

If the CR has not been installed at the target system, only the target system and release number are shown, along with the narrative: (*Status info not received*).

If the CR has been installed at the target system, all other columns will show the details of the CR's latest movement at the target system.

For each CR network status record, the following information is provided:

- Target system code and description.
- Date of the most recent movement/promote at the target system.
- Movement/promote type of most recent movement/promote at the target system.
- The current CR status code at the target system.
- Release number to which the CR is allocated at the target system. If the CR has since been allocated to another release at the development centre system, this new release number will not appear on the network status panel until the CR has been installed from the new release at the target system.
- Movement/promote job details at the target system (number/user/name).

Listing movement transaction logs

All movement/promote transactions are logged into a central repository. Refer to *Movement logs* on page 7-15.

This function allows you to list the movements of application parts registered under one or more CRs.

How to get into this function

Menu/Option:SEEAUD / 1, then options 20=Movements, 6=PrintCommand:DSPOBJHST

Selection criteria

List Movement Logs (LST	MVTLOG)
Type choices, press Enter.	
Originating System:	Name 000001-999999 01-99 Date
F3=Exit F4=Prompt F5=Refresh F12=Cancel F24=More keys	Bottom F13=How to use this display

End Date

Specify the higher limit for the movement transaction date. Only logs for movements with date equal to or prior to this date are printed. If left blank, all movements for the selected CR are printed.

After you have entered your selection criteria and pressed Enter, a job control prompt window will pop up enabling you to run the job either interactively or in batch. Refer to *Submitting batch jobs* in *SEE/Change General Introduction*. For details on all parameters, refer to *Command LSTMVTLOG* on page 7-59.

Displaying application statistics

This function allows you to display statistical data for all applications configured in your system.

How to get into this function

Menu/Option: SEEAUD / 21 Command: DSPSTT

List panel viewing and manipulation

SEE/Change Testing Environment Display Application Statistics Dev Centre: SY1 Application . . . (P): AP1 Demo application 1 * More: + ---Throughput Period--- New New New CRs ---Closed IRs---- Live Live CR From To Days IRs CRs Est Hrs *REF *TXT Comp CRs Act Hrs
 From
 To
 Days
 IRs
 CRs
 Est Hrs
 *REF

 6/01/93
 5/12/94
 698
 40
 145
 10

 0/00/00
 6/01/93
 8
 16
 4
 Est Hrs *REF *TXT Comp 1 1 18 4 1 4 Bottom F1=Help F3=Exit F4=Prompt F6=WIP F7=Prev app F8=Next app F12=Cancel

Statistics are shown separately for each application. You can display the statistics for any application by entering a specific application code, or by requesting the *next* or *previous* code in the alphabetical application code list.

On the application description line, the constant *More:* indicates your position in the application code list: a plus (+) indicates that the *next* code can be requested using F8, a minus (-) indicates that the *previous* code can be requested using F7.

Application

Enter the application code for the statistics display. It must be a valid application code for which statistics are already gathered. Initially the field is defaulted to the first application code for which statistics are found. You can use F4 to prompt for a list of all valid application codes.

Interpreting the throughput statistics

The panel initially shows throughput statistics for specified time intervals. Every time the Update Statistics (UPDSTT) function is run, a new statistics line is added. The time interval is from the date of the previous update run to the date of the current update run. The statistics line for the latest update run is shown first, followed by all previous runs.

Throughput statistics are designed to facilitate throughput evaluation, that is, to quantify the work load handled at various time intervals. The following information is available for each time interval (for each statistics line):

From Date	The from-date for the statistics interval, that is, the date of the previous statistics update run.
To Date	The to-date for the statistics interval, that is, the date of the current statistics update run.
Days	The number of days in the statistics interval.
New IRs	The number of new IRs that have been entered into the system during the specified interval.
New CRs	The number of new CRs that have been entered into the system during the specified interval.
New CRs Est Hrs	The total estimated workload (in hours) for all new CRs that have been entered into the system during the specified time interval. (Note that workload estimates can be changed at any time during development. This figure shows the total estimated workload for the new CRs at the time of the update run).
Closed IRs - *REF	The number of IRs that have been closed with reference to other IRs during the specified interval.
Closed IRs - *TXT	The number of IRs that have been closed with text instructions or an explanation issued to the users during the specified interval. For these IRs, no CRs have been opened and no software changes made.
Closed IRs - Comp	The number of IRs that have been completed during the specified interval. An IR is considered completed after all CRs opened under the IR have been released and delivered to the local live environment.
Live CRs	The number of CRs that have been released and delivered to the Live/Production environment during the specified interval.
Live CRs Act Hrs	The total actual workload (in hours) for all CRs that have been released and delivered to the Live/Production environment during the specified time interval. (Note that the recording of actual hours is optional).

Interpreting the work-in-progress statistics

The following panel is shown when you use **F6=WIP** to view the work-in-progress statistics. The work-in-progress statistics are designed to facilitate *snap-shot* evaluation of current workloads.

		SE Di	E/Change Te splay Appl:	esting En ication S	nvironme Statisti	nt cs	Dev Cen	tre: SY1
Applicat	ion	(P): AP1 De	emo applicat	tion 1 *			More:	+
WiP Cut-off 5/12/94 6/01/93	Wait`g 17 17	IRs U/Ivst U 5	1/CRs 1 16 2	J/Dev (116 5	0/S Hrs 3-	CRs - Rdy Tst	U/Tst 1 1	Rdy Rls 10 6
								Bottom
F1=Help	F3=Exit	F4=Prompt	F6=Thrupu	t F7=Pre	ev app	F8=Next	app F12	=Cancel

The following information is available for each cut-off date (for each statistics line):

WiP Cut-off	The work in progress cut-off date, that is, the date of the statistics update run.		
IRs waiting	The number of IRs awaiting investigation.		
IRs U/Ivst	The number of IRs under investigation.		
IRs U/CRs	The number of IRs with one or more CRs opened and under development.		
CRs U/Dev	The number of CRs currently under development.		
CRs O/S Hrs	The total outstanding workload (in hours) for all CRs currently under development. The outstanding workload is calculated as the CR estimated workload minus the CR actual hours spent. (Note that the entry of these figures against CRs is optional).		
CRs Rdy Tst	The number of CRs ready to be tested, that is, CRs that are ready to be moved to the Module/Integration, Acceptance/QA, or Live/Production environment.		
CRs U/Tst	The number of CRs under testing in the Module/Integration or Acceptance/QA environments.		

CRs Rdy Rls The number of CRs ready to be released to either Acceptance/QA or Live/Production environments at the production sites.

You can use **F6=Thruput** to return to the initial throughput statistics list panel.

Updating application statistics

This function allows you to perform the statistics update. The frequency of the statistics update is determined by your local management requirements.

How to get into this function

Menu/Option: SEEAUD / 22 Command: UPDSTT

Selection criteria

```
Update THENON Statistics (UPDSTT)

Type choices, press Enter.

Update stats for application: . *ALL Name, *ALL

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display

F24=More keys
```

Command parameters are prompted. Refer to Command UPDSTT on page 7-61.

Each time this function is performed, a new statistics line is added to the throughput and work-in-progress statistics for the application(s) selected. The time interval for the new statistics line is the period between the previous statistics run and the current run.

Command CHGSBMDFT: Change Submit Defaults

The Change Submit Defaults (CHGSBMDFT) command enables you to specify the default job description being used for submitted jobs. The default job description name is stored in QTEMP. This function enables you to change the current session default as stored in QTEMP.

There are no parameters for this command.

A subsequent window is shown, allowing you to change the current default job description name, or to changes its attributed. You can nominate any existing job description name, or the value *CURRENT, which indicates that job description associated with the user profile and the current interactive library list are used.

Special Considerations:

- When you initially sign-on to SEE/Change, the default is set to OMSJOBD in the SEE/Change database library.
- When you enter function WRKCROBJ (Work with CR Objects) the default job description is changed to either *CURRENT or CRJOBD in the CR library, depending in the value you specify for general parameter @ SBM. Refer to *Maintaining general parameters* in *Configuration Manager User and Reference Manual*. When you exit WRKCROBJ, the default in force before you have entered the function is re-instated.

Command DSPSTT: Display Thenon Statistics

The Display Thenon Statistics (DSPSTT) command allows you to display change management statistical information by time interval. A time interval is the period between one statistics update and the next statistics update.

Two types of statistics can be displayed:

- Throughput statistics, which give an analysis of change management activities for specific time intervals.
- Work-in-progress statistics, which provide a *snap-shot* of current change management workloads at specific cut-off dates.

There are no parameters for this command.

Command LSTMVTLOG: List Movement Log

The List Movement Log (LSTMVTLOG) command allows you to print the details of movements of objects registered under CRs.

Specify values in any combination for the Job Name, Change Request and End Date parameters to print the details of selected movements. If no selection parameters are specified, the movement logs for all CR objects will be printed.

Job Name (JOB)

To print movement logs by JOB, specify the job details (Name/User/Number) of the job that generated the movements to be printed. If left blank, Job Name is not part of the print selection criteria.

job-name

Specify the name of the job that performed the movements whose details are to be printed.

user-name

Specify the name of the user profile of the job whose movement log details are to be printed.

number

Specify the job number assigned by the system.

Change Request (CR)

To print movement logs for a specific CR, specify the CR number (System/IR/CR Sequence) of the CR. If left blank, Change Request is not part of the print selection criteria.

originating-system

Specify the originating system code of the CR whose movement logs are to be printed.

IR-number

Specify the IR number of the CR whose movement logs are to be printed.

CR-sequence-number

Specify the CR sequence of the CR whose movement logs are to be printed.

End Date (ENDATE)

If specified, only movements with a movement date equal or prior to this date will be printed. If left blank, End Date is not part of the print selection criteria.

Command UPDSTT: Update Thenon Statistics

The Update Thenon Statistics (UPDSTT) command allows you to close the current statistics period and accumulate change management statistics for the period. A statistics accumulation period is the period of time between executions of this function.

A statistics update can be done for a single application or for all applications.

Two types of statistics are accumulated:

- Throughput statistics give an analysis of change management activities for specific time intervals.
- Work-in-progress statistics provide a *snap-shot* of current change management workloads at specific cut-off dates.

Update stats for application (APPL)

Specifies the application code(s) that are to have their change management statistics updated.

This is a required parameter. Possible values are:

*ALL

Update the SEE/Change statistics of all applications.

Name

Specify the code of the single application to have its statistics updated.

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