FUJITSU Software BS2000 HSMS V10.0

Version 10.0A
June 2017

Readme file

1   General

A new edition of the user manuals will be published for HSMS 10.0A. Therefore, the readme file refers to the user manuals of the version: "HSMS 10.0A" (edition April 2015).

Order numbers for the English edition: U6043-J-Z125-15-76 (Functions)
                                              U41035-J-Z125-9-76 (Statements)

Order numbers for the German edition: U6043-J-Z125-15 (Funktionen)
                                              U41035-J-Z125-9 (Anweisungen)

The documentation is also available at http://manuals.ts.fujitsu.com.

1.1   README file

This readme file contains all modifications since the publication of the user manuals for HSMS V10.0A. For work with HSMS V10.0A you will need this readme file and the corresponding handbooks.

The current README files are also provided on the manuals server at
http://manuals.ts.fujitsu.com.

2   Software extensions

This chapter shows the description of additional functions and improvements for HSMS V10.0A.

2.1   Extensions as of HSMS V10.0A02

2.1.1   The interpretation of own host name in global HSMS parameter BACKUP-SERVER

The new processing of HSMS parameter BACKUP-SERVER establishes the equation of own host name of the system with *LOCALHOST value.
Changes concern following cases:

1)   the task is started on the system with the following parameters:
     Archive attribute BACKUP-SERVER-USAGE = *STD;
     HSMS parameter BACKUP-SERVER = own host name.
     The request will be processed locally, as if the HSMS parameter BACKUP-SERVER = *LOCALHOST is set;
2)   the task is sent to the Backup Server:
     On the Backup Server system the HSMS parameter contains the name of the own host. The request will be processed on the Backup Server, as if the value *LOCALHOST is set.

2.1.2   Increasing of the waiting time for access to the request-file

The waiting time for access to the request-file is increased to 10 minutes instead of 1 minute during startup HSMS and import pubset processes.

2.1.3   During reorganization from S2 to S2 the save files which are still opened by other migration runs are ignored

During reorganization from S2 to S2 storage level HSMS checks whether any save files in the specified migration archive are still being written. If such save files are found they are ignored with a new warning message HSM0527.

HSM0527 WARNING: SAVE FILE '(&00)' IS STILL BEING WRITTEN. SAVE FILE NOT REORGANIZED

2.1.4   Reporting for copy of save files

In the statements COPY-SAVE-FILE and COPY-NODE-SAVE-FILE the description of the operand REPORT=*FULL changes. After copy of a save file in the same archive or to a shadow archive only a summary was output as a report, even though the user specified REPORT=*FULL. From now in this case a full report is output.

This is different regarding implicit copy into a shadow archive: In case a shadow archive is assigned to an original archive and the user specifies REPORT=*FULL for a save or archival run, the save or archival run is fully reported and the following implicit copy is reported as a summary (equivalent to REPORT=*SUMMARY).

2.2   Extensions as of HSMS V10.0A04

2.2.1   DIRCONV statement REORGANIZE-DIRECTORY

The functionality of the DIRCONV statement REORGANIZE-DIRECTORY has been expanded. In addition to the opportunity of reorganizing repositories, it is possible to reorganize directories now.

2.2.1.1   REORGANIZE DIRECTORY function

The DIRCONV statement REORGANIZE-DIRECTORY can be used to reorganize records with information on files or/and job-variables saved within the directory or node files saved within the specified repository. The reorganization removes empties which might have occurred after purging save versions (PURGE resp. //MODIFY-ARCHIVE … SAVE-FILE=*DELETE).

Such a reorganization is necessary to avoid reaching the limit for amount of the records for a file/job-variable. This can lead to the impossibility of writing information on saved files/JVs into the directory. This is reflected with issuing ARC0176.

The limit can be reached in case of saving one and the same file have been done a lot of times within the same archive (approximately 8160 times, the number may be higher and lower depending on save types, for example, the number can be much higher in case of incremental backups or lower in case of saving the PLAM-info as well). If purging of save versions from the archive takes place from time to time, the reorganization of the directory will reduce the number of used records and thus such overflowing of the directory will be avoided.

In case of such usage it is highly recommended to run the REORGANIZE-DIRECTORY function of DIRCONV from time to time in order to avoid any overflow of directories.

During the reorganization of a directory its copy is being created and reorganized. After successful reorganization this copy can be used instead of the original directory. In case of a successful reorganization DIRCONV outputs the message

THE DIRECTORY HAS BEEN REORGANIZED

In case it was found that reorganization is not possible (for example: either the directory is already reorganized or there has not been any empties to be removed) the message

THE DIRECTORY ALREADY REORGANIZED

is issued.

Such messages are not issued in case of repositories have been handled.

2.2.1.2   Statement REORGANIZE-DIRECTORY

This statement can be used in order to reorganize directory and repository files.

REORGANIZE-DIRECTORY
DIRECTORY-NAME = <full-filename 1..54>
NEW-DIRECTORY-NAME = <filename 1..54>

DIRECTORY-NAME = <full-filename 1..54>
Fully qualified path name of the directory or repository file which will be reorganized.

NEW-DIRECTORY-NAME = <filename 1..54>
Fully qualified path name of the new directory or repository file. It should be different
from file name specified in the DIRECTORY-NAME operand**.**
The directory specified here should not exist or alternatively should be at least empty.

2.2.1.3   Usage model

Example

```
ARC0176 message issued.
Try to reorganize the directory:


/START-DIRCONV       <------------------------------------------<-+
   |                                                              |
   |                                                              ^
   V                                                              |
 ------------------------------                                   |
|REORGANIZE-DIRECTORY           |                                 |
|DIRECTORY-NAME = original-filename|                              |
|NEW-DIRECTORY-NAME = new-filename |                              |
 ------------------------------                                   |
Successfully executed? ------------- NO ----- > follow instructions   |
    |                                       of the error message  |
    |                                                             |
    |                                                             |
   Yes                                                            |
    |                                                             |
    |                                                             ^
    V                                                             |
Directory reorganized?------------ NO ------> Purge some obsolete -->-+
   |                                          save versions
   |                                          and try again to
   |                                          reorganize  the directory
  Yes
   |
   |
   V
try to continue use original directory following way
/DELETE-FILE
FILE-NAME=original-filename
/MODIFY-FILE-ATTRIBUTES
FILE-NAME=filename
,NEW-NAME=original-filename
```

2.3   Extensions as of HSMS V10.0A05

2.3.1   Implicit recalls in a backup server environment

It is now possible to control the usage of a backup server for processing an implicit recall of files migrated from shared Pubsets.
This can be done by setting the value of the archive attribute BACKUP-SERVER-USAGE of the assigned standard system archive SYSMIGRATE in the corresponding environment.

– In the SF environment this is a Pubset specific or, if not defined, a globally defined migration archive.
– In the SM environment this is always a Pubset specific migration archive.

– BACKUP-SERVER-USAGE=*STD means the backup server is used if defined
– BACKUP-SERVER-USAGE=*NO means a backup server is not used, even if a backup server is defined in the global HSMS parameters. In this case there is no standard system archive SYSMIGRATE defined at all, recalls are executed like in a normal master/slave environment.

2.3.2   Corrections for chapter 3.1.3 in Volume 1 "Functions" of the user manual

There is a mistake in the description of MONITORING attribute of an archive. The description must be the following:

The MONITORING attribute controls monitoring of requests on the BS2000 backup monitor
on the SE server on an archive-specific basis:

– MONITORING=*NO specifies that requests for this archive are not displayed on the BS2000 backup monitor. This is the default setting when an archive is created.
– MONITORING=*STD specifies that requests for this archive are to be displayed on the BS2000 backup monitor.

In addition to the archive-specific setting, a global setting can also be specified using the HSMS parameter MONITORING. For the effect in conjunction with the archive-specific setting, see section "Central request monitoring on the SE server" within the HSMS handbooks.

2.3.3   Modification of the //MOVE-SAVE-FILES statement

From now it is not necessary to explicitly specify ENVIRONMENT = *NODE-STD when running a //MOVE-SAVE-FILES statement with a node backup archive. The environment is switched automatically and the statement is processed as if ENVIRONMENT = *NODE-STD was specified.

2.4   Extensions as of HSMS V10.0A06

2.4.1   Restrictions for using SM environment with extended S1 level

Within HSMS V11.0A under BS2000 OSD/BC V11 an extended S1 level for SM-pubsets has been implemented. HSMS V10 does not support the extended S1 level for SM-Pubsets.
Due to the following restrictions it is strongly recommended to upgrade all sharers to BS2000 OSD/BC V11 and HSMS V11.0A, if the extended S1 level of the SM pubset is going to be used.

The usage of a shared SM-Pubset with extended S1 level under HSMS V10.0A has the following restrictions:

Once extended S1 level for a SM pubset is specified on one of the sharers of the pubset with HSMS V11.0A or later, all sharers with HSMS V10.0A and earlier can no longer put the SM-pubset under HSMS control: nor during IMPORT-PUBSET, neither with CREATE-SM-PUBSET-PARAMETERS. This is rejected with console messages.

In case the SM-pubset has already been in use on a sharer with HSMS v10.0A before extended S1 level is defined on share with HSMS v11.0A, the SM pubset is left under HSMS control V10.0A, but save, copy, migrate and repair functions onto S1 level is no longer possible as well as modification of the SM pubset parameters. Read access to save files on S1 level is still possible: restoring saved files and recalling migrated files, copying save files to S2 level, migration from S1 to S2 level, modifying and deleting save files from S1 level, as long as the pubset is not exported by the system with HSMS V10.

Information output with SHOW-SM-PUBSET-PARAMETERS

On a pubset sharer with HSMS V10.0A or earlier, within the extended S1 level in use SHOW-SM-PUBSET-PARAMETERS the value NOT-DEFINED instead of ALL-HSMS-CONTROLLED. HSMS VERSION field displays value 110.

Information output with SHOW-PUBSET-USAGE

On a SM-pubset sharer with HSMS V10.0A or earlier, in case on one of the sharer with HSMS version 11.0A or later the extended S1 level has been set for the pubset, SHOW-PUBSET-USAGE on the SM-pubset reacts as if its S1 level is not defined:
  - when INFORMATION=*REUSABLE-S1-SPACE is rejected with HSM0213.
  - when INFORMATION=*MIGRATION-EVALUATION, files have been migrated to S1 level marked with 'S1-NOT-DEF'

2.4.2   Restrictions for Net-Storage SAM Node Files

HSMS V10.0A does not support Net-Storage SAM node files introduced in BS2000 OSD/BC V11.0A. Such files are ignored during save runs without any further notice. During restore/import processes, Net-Storage SAM node files (saved with ARCHIVE/HSMS V11.0A or higher) are rejected with the error message ARC0512 issued into the report. However, as of HSMS V10.0A06 Net-Storage SAM node files can be copied from save versions created within ARCHIVE/HSMS V11.0A or higher.

A new save type FNOD is introduced in HSMS V11.0A for denoting Net-Storage SAM node files saved without SAM structure. As of HSMS V10.0A06 "FNOD" is displayed as a save type in HSMS report files or with SHOW-ARCHIVE statement, if archives are accessed that contain these type of files.

2.4.3   Default Pubset entry in SF control file during startup

When creating SF control file during HSMS startup, a Pubset entry on default pubset of SYSHSMS user ID is written into the file by default.
As of HSMS V10.0A06, such a Pubset entry is also supplied during startup with already existing SF control file if it is missing.

3   Changed or new messages

The following messages are new or have been modified in HSMS V10.0A versus V9.0B:

> HSM021C
> HSM0020
> HSM0303
> HSM0329
> HSM0499
> HSM0526
> HSM0527

The text of each message as well as the text of the meaning and help information can be displayed online by the command /HELP-MSG.

The utility program MSGMAKER can be used to list all messages with their meaning and help texts. The name of your actual message file is provided by the command:

/SHOW-INSTALLATION-PATH   INSTALLATION-UNIT=HSMS(VERSION=V10.0),
                           LOGICAL-ID=SYSMES