ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

SpoolOrganizer provides the following commands to archive spool entries from the Online Database to an external media:

ARCOLE   Archive to Tape or ARCFILE
ARCARCFDTA   Move ARCFILE to Tape
OPTOLE   Archive to Optical Disk or ARCFILE
OPTARCFDTA   Move ARCFILE to Optical Disk

The user must be defined as a SpoolOrganizer operator or security officer to use the Archive commands.

An **ARCFILE** is a sequential physical file with record length **4096**. SpoolOrganizer can archive spool entries to an **ARCFILE**, then write the **ARCFILE** member to tape or Optical at a later time. All commands can optionally write a record of each archived spool entry to the Archive or Optical Catalog. Users can query these catalogs to access the archived spool entries. For more information, refer to Chapter 24, "Search for Spool Entries".

All commands can be placed in a CL program and/or submitted to batch. All commands send an escape message **SPO-1000** if an error is detected. The message can be monitored by a CL program. The user can select the spool entries to archive or purge by specifying an **ARCID**.

Archive Online Database to Tape

The **ARCOLE** command is used to archive spool entries in the Online Database. The archive command will create a file on the archive media that can be displayed at a later date. For more information, refer to Chapter 18, "Display Archived Media Selections". Following is the screen and parameters of the **ARCOLE** command.

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```
                    Archive Spool Entries (ARCOLE)

Type choices, press Enter.


Selection Specifications . . . . _____      Name, *ALL
Device . . . . . . . . . . . . . _____      Name, *ARCFILE
           + for more values     _____
Volume Identifier  . . . . . .   *MOUNTED____      Character value, *MOUNTED
           + for more values     _____
File label on tape . . . . . . . *GENERATE_____
Tape sequence number . . . . .   *END_____     Number, *END
End of tape option . . . . . .   *REWIND ___       *REWIND, *LEAVE, *UNLOAD
Archive expired entries only . . *EXPIRED __       *ALL, *EXPIRED
Delete archived spool entries  . *YES       _      *YES, *NO
Update Archive Catalog . . . .   *YES       _      *YES, *NO, *UNEXPIRED
ARCFILE name . . . . . . . . .   *NONE     ___     Name, *NONE
                                 *LIBL     ___     Name, *LIBL
ARCFILE file member  . . . . .   *FILE _____      Name, *FILE, *FIRST
Existing mbr opt for ARCFILE .   *ERROR_____      *REPLACE, *ERROR
File expiration date . . . . .   *PERM_____      Date, *PERM, *NONE
Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

Selection Specifications (ARCID) Parameter

Specifies the **ID** of the selection specifications to be used when determining eligible spool entries to archive. Only spool entries that meet the selection specifications will be archived. For more information on defining selection specifications, refer to Chapter 8, "Define Archive or Purge Criteria".

> ***ALL:** No selection specifications will be used to limit the spool entries to archive. Thus all spool entries will be archived.

Device (DEV) Parameter

Specifies the backup device (Tape) to place the spool entries. Specify up to four devices.

> ***ARCFILE:** The spool entries will be archived to a special disk file. The file must be a physical sequential file with record length **4096**. Multiple members can exist. The file must exist.

Volume Identifier (VOL) Parameter

Specifies the volume **ID**(s) of the backup Media to use for the archive. Specify up to five volumes.

> ***MOUNTED:** The mounted volume will be used.

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

File Label on Tape (FILELABEL) Parameter
Specifies the file label to assign to the archived spool entries.

*GENERATE: Specifies that SpoolOrganizer is to assign a file name to the file. The generated name will begin with **"BSO"** and end with a 5-digit number (BSO00001, etc.).

Tape Sequence Number (SEQNBR) Parameter
Specifies the tape sequence number where the file will reside. This parameter is ignored for **ARCFILEs**.

*END: The archive file will be placed at the end of the tape.

End of Tape Option (ENDOPT) Parameter
Specifies the action the tape will perform after the archive is complete.

*REWIND: The tape will rewind after the archive completes.

*LEAVE: The tape will remain positioned after the archive completes.

*UNLOAD: The tape will rewind and unload after the archive completes.

Archive Expired Entries Only (EXPENTRY) Parameter
Specifies if only expired spool entries matching the **ARCID** parameter, or all spool entries matching the **ARCID** parameter will be archived. The spool entry's expiration date is set by the Online Database Period and Value prompts when defining Monitors and Selection Criteria.

*EXPIRED: Only spool entries that are expired, and match the search criteria **(ARCID)** will be archived.

*ALL: All spool entries which match the search criteria **(ARCID)** will be archived.

Delete Archived Spool Entries (DLTARC) Parameter
Specifies if archived spool entries are to be removed from the online database after archived.

*YES: Archived spool entries will be deleted from the Online Database.

*NO: Archived spool entries will not be deleted from the Online Database.

Update Archive Catalog (UPDARCCAT) Parameter
Specifies if a record of each archived spool entry is placed into the Archive Catalog.

*YES: A record of each archived spool entry is placed into the archive catalog.

*NO: No records are placed into the Archive Catalog.

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UNEXPIRED: SpoolOrganizer calculates the expiration date for the entry (the date the spool entry is eligible for purge out of the Archive Catalog). Only archived spool entries that have an expiration date greater than the current system date will be recorded in the Archive Catalog.

ARCFILE Name (ARCFILE) Parameter

Specifies the name of the **ARCFILE** to place the archived spool entries into. The **ARCFILE** must exist. Specify a name and a library.

ARCFILE File Member (ARCMBR) Parameter

Specifies the member within the **ARCFILE** to place the archived spool entries. If the member does not exist it will be created.

*FILE: The member name will be the same as the file name.

*FIRST: The first member defined will be used.

Existing Member Option for ARCFILE (MBROPT) Parameter

Specifies the action SpoolOrganizer will take if the member already exists.

*ERROR: An error message is placed into the joblog and an escape message sent to the calling program. In normal situations you should specify **MBROPT**(*ERROR) on the **ARCOLE** command and specify **MBROPT**(*REMOVE) on the **ARCARCFDTA** command. This will insure that entries not written to tape are not lost.

*REPLACE: The existing entries will be replaced with the new entries.

File Expiration Date (EXPDATE) Parameter

Specifies, for tape devices, the file expiration date placed on the tape dataset. This value will be checked by **OS/400** on future write operations to the tape. If a write operation is specified (**SAVLIB** command, etc.) which would overwrite a file which is not expired, **OS/400** will send a warning message to the **QSYSOPR** msgq. Enter a date or specify one of the following:

DATE: The file can be overwritten after the expiration date has passed.

*PERM: The file is permanent. A future operation that writes over this label will receive a warning.

*NONE: The file can be overwritten after it is closed.

Example: The following example archives all joblogs and places them on the tape mounted on **QTAPE1:**

> **ARCOLE ARCID(JOBLOGS) DEV(QTAPE1) VOL(JOBLOG)**

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

Archive Online Database to Optical Disk

The **OPTOLE** command will archive selected entries from the Online Database. It will place the spool entries into a directory on one or more Optical Disks, or into an **ARCFILE**. The contents of an **ARCFILE** can be written to Optical using the **OPTARCFDTA** command. The spool entries (and their data) can be displayed directly from Optical Disk or **ARCFILE**, and reprinted or placed into the Online Database. For more information, refer to Chapter 18, "Display Archived Media Selections".

The user can control which spool entries are archived. A search spec can be specified to limit the spool entries archived. All or expired entries can be specified. Archived spool entries can be optionally removed from the Online Database.

The **OPTOLE** command writes spool entries and an index into the specified Target Directory on the Optical Disk. The Target Directory can be a subdirectory, within a tree structure. Multiple Target directories can reside on a volume. The Target Directory can only contain one SpoolOrganizer **(OPTOUTQ, OPTOLE,** etc.) operation.

An **OPTOLE** operation can span multiple Optical volumes. SpoolOrganizer will fill up the first volume and write an index of this volume's spool entries. It will create the specified path and Target Directory on the next volume, then continue writing the rest of the entries and another index on the next volume. Each index contains only the spool entries on that volume. Mount messages and End-of Volume-List messages will be issued if needed.

OPTOLE can optionally place a record of specified spool entries into the Optical Catalog. Once in the Optical Catalog the spool entry can be searched, displayed, and printed similar to spool entries in the Online Database.

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```
                 Optical Spool Entry Archive (OPTOLE)

 Type choices, press Enter.


 Selection Specifications . . . . >  _____       Name, *ALL
 Volume Identifier  . . . . . . . >  _____
            + for more values         _____
 DirPath Name(s)  . . . . . . .      *ROOT


            + for more values         _____


 DirPath Not Found Option . . .   *ERROR            *CREATE, *ERROR
 Target Directory Name  . . . .   *GENERATE_


 Target Directory Exists Option   *ERROR            *REPLACE, *ERROR
 Archive Expired Entries Only . . *EXPIRED          *ALL, *EXPIRED
 Delete Archived Spool Entries  . *YES              *YES, *NO
 Update Optical Catalog . . . . . *YES              *YES, *NO, *UNEXPIRED



 Bottom
 F3=Exit  F4=Prompt F5=Refresh  F12=Cancel  F13=How to use this display
 F24=More keys
```

The **OPTOLE** Screen and Parameters:

Selection Specifications (ARCID) Parameter

Specifies the **ID** of the selection specifications to be used when determining eligible spool entries to archive. Only spool entries that meet the selection specifications will be archived. For more information on defining selection specifications, refer to Chapter 8, "Define Archive/Purge Specifications".

> ***ALL:** No selection specifications will be used to limit the spool entries to archive. Thus all spool entries will be archived.

Volume Identifier (VOL) Parameter

Specifies the Volume **ID** of the Optical Disk that will receive the spool entries. The volumes must be defined in the Optical Library Dataserver and must be formatted. Specify up to five volumes, or ***ARCFILE**.

> ***ARCFILE:** The spool entries will be archived to a special disk file. The file must be a physical sequential file with record length of 4096. Multiple members can exist in an **ARCFILE**. The file must exist.

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

DirPath Name(s) (DIRPATH) Parameter

Specifies the directories that make up the path that the Target Directory will be placed into. Specify up to 30 directories, or ***ROOT**. Example: to place the Target Directory into path /A/B/C, specify **DIRPATH**(A B C).

> ***ROOT:** The Target Directory will be placed into the root directory.

Note: The length of the path generated (including slashes generated by SpoolOrganizer) cannot be greater than **63**.

DirPath Not Found Option (DIROPT) Parameter

Specifies the action to take if the path specified in the **DIRPATH** parameter does not exist on the first volume. **Please note** that SpoolOrganizer will always create the directories in the second thru n volumes if they do not exist.

> ***ERROR:** The **OPTOLE** command will end in error. An error message is placed into the joblog and escape message **SPO-1000** is sent to the calling program.

> ***CREATE:** All directories not found in the specified path will be created.

Target Directory Name (TRGTDIR) Parameter

Specifies the name of the Target Directory to contain the archived spool entries. SpoolOrganizer places multiple files into the specified Target Directory. The Target Directory is a sub directory of the path specified in the **DIRPATH** parameter. For example if the **DIRPATH** parameter defines path /A/B/C, Target Directory **TGT1** will appear as /A/B/C/TGT1. If the Target Directory does not exist it will be created.

> ***CREATE:** SpoolOrganizer will create a unique name. The generated name will be **"BSO"** followed by a five-digit number (e.g. BSO00001).

Target Directory Exists Option (TDIROPT) Parameter

Specifies the action to take if the specified Target Directory already exists in the specified path on any volume.

> ***ERROR:** The **OPTOLE** command will end in error. An error message is placed into the joblog and escape message **SPO-1000** is sent to the calling program.

> ***REPLACE:** The **OPTOLE** command will proceed. SpoolOrganizer/400 will place the spool entries into the specified Target Directory. A new index file will be written to the Target Directory, thus making any previously written spool entries irrecoverable.

ARCFILE Name (ARCFILE) Parameter

Specifies the name of the **ARCFILE** to place the archived spool entries into. The **ARCFILE** must exist. Specify a name and a library.

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ARCFILE File Member (ARCMBR) Parameter

Specifies the member within the **ARCFILE** to place the archived spool entries. If the member does not exist it will be created.

*FILE: The member name will be the same as the file name.

*FIRST: The first member defined will be used.

Existing mbr opt for ARCFILE (MBROPT) Parameter

Specifies the action SpoolOrganizer will take if the member already exists.

*ERROR: An error message is placed into the joblog and an escape message sent to the calling program. In normal situations you should specify **MBROPT**(*ERROR) on the **OPTOLE** command and specify **MBROPT**(*REMOVE) on the **OPTARCFDTA** command. This will insure that entries not written to Optical are not lost.

*REPLACE: The existing entries will be replaced with the new entries.

Archive Expired Entries Only (EXPENTRY) Parameter

Specifies if only expired spool entries matching the **ARCID** parameter, or all spool entries matching the **ARCID** parameter will be archived. The spool entry's expiration date is set by the Online Database Period and Value prompts when defining Monitors and Selection Criteria.

*EXPIRED: Only spool entries that are expired, and match the search criteria **(ARCUD)** will be archived.

*ALL: All spool entries which match the search criteria **(ARCID)** will be archived.

Delete Archived Spool Entries (DLTARC) Parameter

Specifies if archived spool entries are to be removed from the Online Database after archived.

*YES: Archived spool entries will be deleted from the Online Database.

*NO: Archived spool entries will not be deleted from the Online Database.

Update Optical Catalog (UPDOPTCAT) Parameter

Specifies if a record of each archived spool entry is placed into the Optical Catalog.

*YES: A record of each archived spool entry is placed into the Optical Catalog.

*NO: No records are placed into the Optical Catalog.

UNEXPIRED: SpoolOrganizer calculates the expiration date for the entry (the date the spool entry is eligible for purge out of the Optical Catalog). Only archived spool entries that have an expiration

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

date greater than the current system date will be recorded in the Optical Catalog.

Example: The following example archives all joblogs and places them on the Optical volume **SAVSPLE** in directory **JOBLOGS**. The Target Directory will be **JULY95**:

OPTOLE ARCID(JOBLOGS) VOL(SAVSPLE) DIRPATH(JOBLOGS) TGTDIR(JULY95)

Write ARCFILE to Tape

Use the **ARCARCFDTA** command to move the contents of an **ARCFILE** created by the **ARCOLE** or **ARCOUTQ** commands to tape. The **ARCARCFDTA** screen and parameters are:

```
                    Archive ARCFILE data   (ARCARCFDTA)

 Type choices, press Enter.


 Device . . . . . . . . .                           Name
           + for more values
 ARCFILE name . . . . . .                           Name
                                  *LIBL         Name,  *LIBL
 ARCFILE file member  . . .    *FILE         Name,  *FILE, *FIRST
 Volume Identifier  . . . .    *MOUNTED      Character value, *MOUNTED
          + for more values
 File label on tape   . . .    *GENERATE
 Tape sequence number . . .    *END          Number, *END
 End of tape option   . . . . *REWIND        *REWIND, *LEAVE, *UNLOAD
 Normal end member option   . . *REMOVE      *REMOVE, *KEEP
 Update Archive Catalog . . . *YES           *YES, *NO, *UNEXPIRED
 File expiration date . . . . *PERM          Date, *PERM, *NONE



 Bottom
 F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
 F24=More keys
```


Device (DEV) Parameter
Specifies the backup device(s) to place the spool entries. Specify up to four devices.

ARCFILE Name (ARCFILE) Parameter
Specifies the name of the **ARCFILE**.

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ARCFILE File Member (ARCMBR) Parameter

Specifies the member in the **ARCFILE** to move to tape.

Volume Identifier (VOL) Parameter

Specifies the volume **ID**(s) of the backup Media to use for the archive. Specify up to five volumes.

*MOUNTED: The mounted volume will be used.

File Label on Tape (FILELABEL) Parameter

Specifies the file label to assign to the archived spool entries.

*GENERATE: Specifies that SpoolOrganizer is to assign a file name to the file. The generated name will begin with **"BSO"** and end with a 5-digit number (BSO00001, etc.).

Tape sequence Number (SEQNBR) Parameter

Specifies the tape sequence number where the file will reside. This parameter is ignored for **ARCFILEs.**

*END: The archive file will be placed at the end of the tape.

End of Tape Option (ENDOPT) Parameter

Specifies the action the tape will perform after the archive is complete.

*REWIND: The tape will rewind after the archive completes.

*LEAVE: The tape will remain positioned after the archive completes.

*UNLOAD: The tape will rewind and unload after the archive completes.

Normal end Member Option (MBROPT) Parameter

Specifies the action SpoolOrganizer will take if the archive completes normally.

*REMOVE: The member is removed from the **ARCFILE**.

*KEEP: The member is not removed from the **ARCFILE**.

Update Archive Catalog (UPDARCCAT) Parameter

Specifies if a record of each archived spool entry is placed into the Archive Catalog.

*YES: A record of each archived spool entry is placed into the archive catalog.

*NO: No records are placed into the Archive Catalog.

*UNEXPIRED: SpoolOrganizer calculates the expiration date for the entry (the date the spool entry is eligible for purge out of the Archive Catalog). Only archived spool entries that have an AC expiration date greater than the current system date will be recorded in the Archive Catalog.

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

File Expiration Date (EXPDATE) Parameter

Specifies the file expiration date placed on the tape dataset. This value will be checked by **OS/400** on future write operations to the tape. If a write operation is specified (**SAVLIB** command, etc.) which would overwrite a file which is not expired, **OS/400** will send a warning message to the **QSYSOPR** msgq. Enter a date or specify one of the following:

> ***PERM:** The file is permanent. A future operation that writes over this label will receive a warning.

> ***NONE:** The file can be overwritten after it is closed.

Example: The following example writes the member **JULY95** in **ARCFILE JOBLOGS** to tape:

> **ARCARCFDTA DEV(QTAPE1) ARCFILE(JOBLOGS) ARCMBR(JULY95) VOL(SAVSPL)**

Write ARCFILE to Optical Disk

Use the **OPTARCFDTA** command to move the contents of an **ARCFILE** created by the **OPTOLE** or **OPTOUTQ** commands to Optical disk.

The **OPTARCFDTA** Screen and Parameters are:

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```
                    Archive ARCFILE to Optical (OPTARCFDTA)

  Type choices, press Enter.


  ARCFILE name . . . . . . . . . _____          Name
                                   *LIBL    _          Name, *LIBL
  ARCFILE file member . . . . . *FILE_____          Name, *FILE, *FIRST
  Volume Identifier . . . . . . *ARCFILE____
            + for more values          _____
  DirPath Name(s) . . . . . . *ROOT_____


            + for more values          _____

  DirPath Not Found Option . . . . *ERROR____          *CREATE, *ERROR
  Target Directory Name . . . . *GENERATE_

  Target Directory Exists Option   *ERROR _            *REPLACE, *ERROR
  Normal end member option . . .   *REMOVE             *REMOVE, *KEEP
  Update Optical Catalog . . . . .  *YES___            *YES, *NO, *UNEXPIRED



  Bottom
  F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
  F24=More keys
```

ARCFILE Name (ARCFILE) Parameter
Specifies the name of the **ARCFILE.**

ARCFILE File Member (ARCMBR) Parameter
Specifies the member in the **ARCFILE** to move to Optical disk.

Volume Identifier (VOL) Parameter
Specifies the Volume **ID** of the Optical Disk that will receive the spool entries. The volumes must be defined in the Optical Library Dataserver and must be formatted. Specify up to five volumes, or ***ARCFILE**.

   *ARCFILE: The Volume name will be the same as the **ARCFILE** name.

DirPath Name(s) (DIRPATH) Parameter
Specifies the directories that make up the path that the Target Directory will be placed into. Specify up to 30 directories, or ***ROOT**. **Example:** to place the Target Directory into path /A/B/C, specify **DIRPATH**(A B C).

ARCHIVE ONLINE DATABASE TO TAPE OR OPTICAL

*ROOT: The Target Directory will be placed into the root directory.

Note: The length of the path generated (including the Target Directory and slashes generated by SpoolOrganizer) cannot be greater than **63**.

DirPath Not Found Option (DIROPT) Parameter

Specifies the action to take if the path specified in the **DIRPATH** parameter does not exist on the first volume. **Please note** that SpoolOrganizer will always create the directories in the second thru n volumes if they do not exist.

*ERROR: The **OPTARCFDTA** command will end in error. An error message is placed into the joblog and escape message **SPO-1000** is sent to the calling program.

*CREATE: All directories not found in the specified path will be created.

Target Directory Name (TRGTDIR) Parameter

Specifies the name of the Target Directory to contain the archived spool entries. SpoolOrganizer places multiple files into the specified Target Directory. The Target Directory is a sub directory of the path specified in the **DIRPATH** parameter. For example: if the **DIRPATH** parameter defines path /A/B/C, Target Directory **TGT1** will appear as /A/B/C/TGT1. If the Target Directory does not exist it will be created.

*CREATE: SpoolOrganizer will create a unique name. The generated name will be **"BSO"** followed by a five-digit number (e.g. BSO00001).

Target Dir Exists Option (TDIROPT) Parameter

Specifies the action to take if the specified Target Directory already exists in the specified path on any volume.

*ERROR: The **OPTARCFDTA** command will end in error. An error message is placed into the joblog and escape message **SPO-1000** is sent to the calling program.

*REPLACE: The **OPTARCFDTA** command will proceed. Spool Organizer/400 will place the spool entries into the specified Target Directory. A new index file will be written to the Target Directory, thus making any previously written spool entries irrecoverable.

Normal End Member Option (MBROPT) Parameter

Specifies the action SpoolOrganizer will take if the archive completes normally.

*REMOVE: The member is removed from the **ARCFILE**.

*KEEP: The member is not removed from the **ARCFILE**.

Update Optical Catalog (UPDOPTCAT) Parameter

Specifies if a record of each archived spool entry is placed into the Optical Catalog.

***YES:** A record of each archived spool entry is placed into the Optical Catalog.

***NO:** No records are placed into the Optical Catalog.

***UNEXPIRED:** SpoolOrganizer calculates the expiration date for the entry (the date the spool entry is eligible for purge out of the Optical Catalog). Only archived spool entries that have an expiration date greater than the current system date will be recorded in the Optical Catalog.

Example: The following example writes the member **JULY95** in **ARCFILE JOBLOGS** to Optical disk:

OPTARCFDTA ARCFILE(JOBLOGS) ARCMBR(JULY95) VOL(SAVSPLE)
        DIRPATH(JOBLOGS) TGTDIR(JULY95)