APPENDIX B: REPORT DISTRIBUTION (BUNDLING) EXAMPLE

The following is a simple exercise that will demonstrate the major tasks needed to perform Report Distribution (Bundling). It is intended to be an introduction to SpoolOrganizer Bundling, and will refer the user to places to get more detailed information. To use this exercise, the user must have authority to the following commands:

> **CRTOUTQ**
> **DSPSPLF**
> **CHGSPLFA**
> **CLROUTQ**
> **DLTOUTQ**

This exercise should require approximately **30** minutes to complete. To complete the exercise, perform the commands:

1) Create outqs.

 The exercise needs two outq's; a **SOURCE** outq, which will simulate an outq that your applications are currently placing output into, and a **TARGET** outq, which will simulate a new outq defined to a printer.

Enter the following commands, or substitute your own names for the two outqs:

> **CRTOUTQ OUTQ(BRODERICK/BPRT01) TEXT(TEST) DSPDTA(*YES)**

> **CRTOUTQ OUTQ(BRODERICK/BPRT01P) TEXT(TEST) DSPDTA(*YES)**

2) Define yourself to SpoolOrganizer as a SpoolOrganizer Security Officer.

You must be a SpoolOrganizer Security Officer to define the objects needed for this exercise. If you are already defined to SpoolOrganizer as a security officer, you may skip this step. Otherwise perform the following:

a) Sign on as **QSECOFR**.

b) Enter the SpoolOrganizer Administrator Menu:

> **BRODERICK/SPLADM**

c) Select Option **1**, "Define System Menu", then select option **1**, "Define Users".

d) A list of users defined to SpoolOrganizer will appear. Press **F6**, Add.

e) Enter your user profile and press enter.

f) For more information regarding SpoolOrganizer Users, refer to chapter **4**,"Define Users". For now, enter the following:

Place an ***** in the first field of Change Security Table

       User class: **S**
       Press **ENTER**.

g) Your user profile should now appear in the list. Press **ENTER** to exit Define Users

h) Select option **90** to sign off.

3) Sign on as your User profile.

4) Access the SpoolOrganizer Administrator Menu.

Enter the following commands:

     ADDLIBLE BRODERICK

     SPLADM

5) Create a Monitor.

SpoolOrganizer Monitors monitor outqs and pass the selected spool entries to the Bundle Manager (Monitors can perform other functions as well). In this exercise the Monitor will move the spool entries we place in outq **BPRT01** to outq **BPRT01P**, and pass the spool entries to the Bundle Manager. Enter the following:

a) Select option **1**, "Define System Menu", then Selection **2**, "Define Monitors"

b) A list of Monitors (if any) should appear. Press **F6**, Add.

c) Enter the following:
    + Name: BPRT01
    Press ENTER.

d) For a description of all of the features of Monitors, refer to the following chapters:

    Chapter 1, "Introduction"
    Chapter 5, "Define Monitors"
    Chapter 6, "Define Selection Specifications"
    Appendix B, Section 2, "Monitor Setup Example"

For now, enter the following:

From Outq/Library:	**BPRT01**	**BRODERICK**
Descriptive Text:	**Test**	
To Outq:	**BPRT01P**	
Library:	**BRODERICK**	
Press **ENTER.**		

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e)   Your Monitor should appear in the list. Press **ENTER** to return to the menu.

6) Create a Bundle Description.
Perform the following:

a) Select option **12**, "Define Bundle Specifications".

b)   The "Display Specifications Screen" should appear. If you have many Bundle Descriptions, you can use this screen to limit the amount displayed. Press **ENTER**.

c)   A list of Bundle Descriptions should appear. Press **F6**, Add.

d)   Enter the following:
Bundle Name: **BUNDLE1**
Bundle ID: **TEST**
Press ENTER

e)   For a description of the features of Bundles, refer to Chapter 13, "Define Bundle Specifications". For now, enter the following:

Descriptive Text: **Test**
To Outq/Library: **BPRT01P   BRODERICK**
User Profile: (your user profile)
Keep OPEN until Cutoff time: ***YES**
Cutoff Parameters:
- Type: **D**
- Value   **0**
- Time: (enter a time about **10** minutes from now)

Print Parameters:
- Days: **0**
- Time: (enter a time **3** minutes greater than the Cutoff Time)

Change Security: ***** (in the first field)
Press **ENTER**.

f)   A list of Bundle Entries defined to this Bundle will appear. At this point there should not be any. Press **F6**, Add.

g)   Enter the following:
Sequence Number: **10**
Press **ENTER**.

The "Define Bundle Entry Description" screen will appear. Enter the following:

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Monitor Name: **BPRT01**
Job User: (your user profile)
Descriptive Text: **Test**
         Press **ENTER.**

h) The list of Bundle Entry Descriptions will appear, with the entry we just added. Press **ENTER** to exit. Press **F12** to exit Add mode.

i) The list of Bundle Descriptions will appear, with the Bundle we just added. Press **ENTER** until exited to the Administrative menu.

7) Apply changes to production.

Select option **2**, "Control System Execution" and then select option **44**, "Apply Bundle Changes". There are no parameters to the **APYBDLCHG** command, so press **ENTER.** The menu will appear.

Note: You may wish to select option **45**, "Display Production Specifications" at this time to see your Bundle in the production copy of the Bundle Descriptions.

8) Start the Monitor and Bundle Manager.

Enter the following commands (or select the options off of the "Control System Execution Menu"):

    STRSOMON BPRT01
    STRBDLMGR

9) Place output into outq BPRT01.

You can place any spool entry (which has your user profile in the User spool file attribute) into outq **BPRT01** (we recommend that you do not use anything important). You can use any method you wish to move the output.

10) Watch the Monitor and Bundle Manager Execute

Exit from the menu, get to a command line, and enter the following command:

    WRKACTJOB
    Press **ENTER**.

You will see subsystem **BDS**, with jobs **BDSBDLMGR, BDSUSRPRF** and **BPRT01** (your Monitor) executing. Periodically (every **10** seconds) press **F5** to refresh the screen. The Monitor job and the Bundle Manager job will change to a **DEQW** status when they are finished processing the Spool Entry. At that time press **ENTER** to exit.

11) Work with your Bundle.

Enter the following command, or select option **3**, End User Function from the Administrator Menu and then select option **4**, "Work with active Bundles" from the End User Menu:

    WRKACTBDL

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The Active Bundles Display will appear with your Bundle listed. For a list of the features of the Active Bundles Display, refer to Chapter 25, "Work with Active Bundles" at a later time.

Depending on the Cutoff Time you specified when you defined the Bundle, and the amount of time that has elapsed since then, you will see your Bundle in one of the following statuses: **OPEN, WAITPRT, PRINTING,** or **PRINTED.** Hopefully we were fast enough to get to this screen and see the Bundle in an **OPEN** status.

If the Bundle is in an **OPEN** status, it will close at the time you specified. Periodically press **F5** (refresh), noting the current time at the top of the screen. You will notice the Bundle status changes to **WAITPRT** shortly after the Cutoff time arrives. Keep pressing **F5** (refresh) and you will notice the status will change to **PRINTING** shortly after the print time you specified arrives. Keep pressing **F5** and you will notice the status will change to **PRINTED** when the Bundle is printed.

When you are finished, select option **4** to delete your Bundle.

Press **ENTER** to exit the Active Bundles Display.

12) Display the output in outq BPRT01P.
Enter the following command:

    WRKOUTQ OUTQ(BPRT01P)
    Press ENTER.

The spool entry will appear in the outq twice. This is because we told the Monitor and the Bundle Manager to move a copy to outq **BPRT01P** (Please remember this is just an exercise). In a production environment you may want the Monitor to delete the spool entry, or hold it. It will be your choice.

13) End the Monitor and Bundle Manager.
Enter the followings command (or select the options off of the "Control System Execution Menu"):

    ENDSOMON BPRT01
    ENDBDLMGR

Active Classes Example

This exercise will demonstrate the setup and operation of Bundle Entries which are only active during certain time periods. In this example the Bundle will only be active at Month End. This exercise will use the objects created above. **Please note** that sample spool entries are created by using the command **CRTSOEXP**. This exercise will use the spool entries. The **CRTSOEXP** command can be run several times if desired.

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This exercise will create a Bundle with an Active class of XME (example month end).

1) Sign on.
If not currently, sign on as your user profile.

2) Add library BRODERICK to your library list:

ADDLIBLE BRODERICK

3) Define Bundles.

a) Bring up the Administrator menu:

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b) Select option **1**, "Define System", then select option **12**, "Define Bundle Specifications". Press
ENTER to display all Bundles.

c) The Bundle **BUNDLE1 TEST** created earlier should appear. Place a **'2'** by it   and press **ENTER**.
We will change it slightly for this exercise. Change the   following:

Keep Open until Cutoff Time: ***NO**
Auto Release when Closed: ***NO**
Incomplete Option when Closed: ***HOLD**
Cutoff Time (Time):   **2358**
Print Time (Time):   **2359**
Active Classes: **XME**   (Type over "ALL")

Press ENTER.

Note: The above changes will also hold the Bundle when it is completed.

d) The Bundle Entries list will appear, with one entry. Press **ENTER**.

4) Apply changes to production.
Select option **44**, "Apply Bundle Changes", from the Control System Execution Menu. There are no
parameters to the **APYBDLCHG** command, so press **ENTER.** The menu will appear.

Note: You may wish to select option **45**, "Display Production Specifications" at this time to see your
Bundle in the production copy of the Bundle Descriptions.

5) Display the Active Classes.
From a command line, enter the following command:

SETACTCLS OPTION(*DISPLAY) ACTCLS(*SELECT)

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A display showing the current Active Classes will appear.

Note: the current Active Classes and press **ENTER.**

6) Start the Monitor and Bundle Manager.

Enter the following commands (or select the options off of the Control System Execution Menu):

> **STRSOMON BPRT01**
> **STRBDLMGR**

7) Place output into outq BPRT01.

You can place any spool entry (which has your user profile in the User spool file attribute) into outq **BPRT01** (we recommend that you do not use anything important). You can use any method you wish to move the output.

8) Watch the Monitor and Bundle Manager Execute.

Exit from the menu, get to a command line, and enter the following command:

> **WRKACTJOB**
> Press ENTER.

You will see subsystem **BDS**, with jobs **BDSBDLMGR, BDSUSRPRF** and **BPRT01** (your Monitor) executing. Periodically (every 10 seconds) press **F5** to refresh the screen. The Monitor job and the Bundle Manager job will change to a **DEQW** status when they are finished processing the Spool Entry. At that time press **ENTER** to exit.

9) Work with Bundles.

a) Enter the following command, or select option **4**, from the "End User Menu", "Work with active Bundles".

> **WRKACTBDL**

The Active Bundles Display will appear, but there will be no Bundles with name BUNDLE1. Press **ENTER** to return to the Administrator Menu or command line.

10) End the Monitor and Bundle Manager.

Enter the following commands (or select the options off of the Control System Execution Menu):

> **ENDSOMON BPRT01**
> **ENDBDLMGR**

11) Set the Active Class.

From a command line, enter the following command:

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SETACTCLS OPTION(*UPDATE) ACTCLS(*SELECT)

A display showing the current Active Classes will appear.

    Active Classes: **XME**
                        Press **ENTER.**

Note: If the Bundle Manager, or any Monitor which processes spool entries for Bundles is active, the above command will end in error. If so, end the Monitors and the Bundle Manager.

12) Retry with the Active Class Set.
Perform steps 5 thru 9 again (Start Monitor/Bdl Mgr thru End Monitor/Bdl Mgr). This time a Bundle will appear on the active Bundles display. When finished, delete your active Bundle (WRKACTBDL).

Partial Print Example

This exercise will demonstrate the setup and operation of Bundle Entries in which only part of the entire spool entry is included. This exercise will use the objects created above. **Please note** that sample spool entries are created by using the command **CRTSOEXP**. This exercise will use the spool entries. The **CRTSOEXP** command can be run several times if desired. This exercise will create two Bundles, each with a subset of the example Inventory List.

1) Sign on.
If not currently, sign on as your user profile.

2) Add library BRODERICK to your library list:

    ADDLIBLE BRODERICK

3) Look at the spool entry.
It is recommended to display the spool data before attempting to define partial print specifications.

a) Display the outq:

    WRKOUTQ BPRT01

A spool entry with file name **INVLST** and User Data **INVENLIST** should appear. If not, or if outq **BPRT01** does not exist in library **BRODERICK,** use the following command to create them and redisplay the outq **BPRT01**:

    CRTSOEXP

b) Display the attributes. Place an **'8'** next to the spool entry and press **ENTER.** The attributes screen will appear. Note that the file name is **INVLST** and the user data is **INVENLIST.** This exercise will use these attributes to identify this spool entry.

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Press **ENTER** to return to the outq list display.

c) Display spool data. Place a **'5'** next to the spool entry and press **ENTER**. Observe the following:

+ The report has 15 pages
+ The heading appears on line 4 of each page.
+ Text **"DEPT"** appears in columns 51 thru 54.
+ The department number appears in columns 56 thru 58.

d) Press **F12** to exit back to the outq list display. Press **ENTER** to exit.

4) Define Bundles.

a) Bring up the Administrator menu.

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b) Select option **1**, "Define System", then select option **12**, "Define Bundle" Specifications. Press **ENTER** to display all Bundles.

c) The Bundle **BUNDLE1 TEST** created earlier should appear. Place a **'2'** by it and press **ENTER**. We will change it slightly for this exercise. Change the following:

Keep Open until Cutoff Time:	***NO**
Auto Release when Closed:	***NO**
Incomplete Option when closed:	***HOLD**
Cutoff Time (Time):	**2358**
Print Time (Time):	**2359**

Press ENTER.

Note: The above changes will hold in the Bundle when it is completed.

d) The Bundle Entries list will appear, with one entry. Place a **'2'** next to it and press **ENTER**. Make the following changes:

Job User:	(spaces)
Spool File Name:	**INVLST**
Spool User Data:	**INVENLIST**
Select Only part of entry:	***YES**

Press ENTER.

e) The Partial Print Specifications screen will appear. Enter the following:

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Type of search: **S**(Start/End)

Start of Segment
Page Number: **0**(Search)

End of Segment
Page Number: **0**(Search)
Include Last Page: ***NO**

Press **ENTER.**

f) The Partial Print Search Definitions screen will appear, allowing you to enter the Start of segment search data. Enter the following

Stl: **4**
Enl: **4**
StC: **56**
EnC: **58**
Rl: **EQ**
Data: **001**
Ln: **3**
UC: **N**

This describes department Number **001** on line **4,** columns **56** thru **58,** length **3**.

Press **F6** to accept. The Partial Print Search Definitions screen will appear again, allowing you to enter the End of segment search data. Enter the following

Stl: **4**
Enl: **4**
StC: **56**
EnC: **58**
Rl: **NE**
Data: **001**
Ln: **3**
UC: **N**

Press **F6** to accept, Bundle Entries screen will appear. Press **ENTER.**

g) The Bundles screen will appear. Place a **'3'** (copy) next to **BUNDLE1 TEST** and press **ENTER.** The Add copy screen will appear. Change **BUNDLE1** to**BUNDLE2** and press **ENTER**. The Bundle description screen will appear. Press **ENTER.**

h) The Bundle Entry screen will appear. Place a **'2'** by Seq **10** and press **ENTER.** Press **ENTER** again.

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The Partial Print Specs screen will appear. Press **ENTER**. Change the first **DATA** field in the Start of Segment from **001** to **003**. Press **F6.** Change the first **DATA** filed in the End of Segment from **001** to **003** and Press **F6** to accept.

i) The Bundle Entries list screen will appear. Place a **'3'** (copy) by Seq. **10** and press **ENTER**. Change Sequence Number from **10** to **20** and press **ENTER.** Press **ENTER** again.

j) The Partial Print Specs screen will appear. Change the following:

       Type of search: **P**(Page by Page)
                 Press **ENTER.**

On the first line in the Start of Segment section, change the following:

    Data: 002
                  Press **F6.**

k) The Bundle Entries screen will appear. Press **ENTER.** Press **F12** to exit copy mode. The Bundles screen will appear. Press **ENTER** to exit to the menu.

5) Apply changes to production.

Select option **44**, "Apply Bundle Changes", from the Control System Execution Menu. There are no parameters to the **APYBDLCHG** command, so press ENTER**.** The menu will appear.

Note: You may wish to select option **45**, "Display Production Specifications" at this time to see your Bundle in the production copy of the Bundle Descriptions.

6) Start the Monitor.

Select option **1**, from the "Control System Execution" Menu, Start a Monitor. Enter the following:
    Monitor to start: **BPRT01**
                 Press **ENTER.**

7) Start the Bundle Manager.

Select option **42**, from the Control System Execution Menu "Start the Bundle Manger". The **STRBDLMGR** command will appear. Press **ENTER.**

8) Place output into outq BPRT01.

You can place any spool entry (which has your user profile in the User spool file attribute) into outq **BPRT01** (we recommend that you do not use anything important). You can use any method you wish to move the output.

9) Watch the Monitor and Bundle Manager Execute.

Exit from the menu, get to a command line, and enter the following command:

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WRKACTJOB
Press **ENTER**.

You will see subsystem **BDS**, with jobs **BDSBDLMGR, BDSUSRPRF** and **BPRT01** (your Monitor) executing. Periodically (every 10 seconds) press **F5** to refresh the screen. The Monitor job and the Bundle Manager job will change to a **DEQW** status when they are finished processing the Spool Entry. At that time press **ENTER** to exit.

10) Work with your Bundles.

a) Enter the following command, or select option **4**, from the "End User Menu", "Work with active Bundles".

    WRKACTBDL

The Active Bundles Display will appear with **BUNDLE1** and **BUNDLE2** listed. For a list of the features of the Active Bundles Display, refer to Chapter 27, "Work with Active Bundles" at a later time. Note that **BUNDLE1** has one entry and **BUNDLE2** has two. Place a '5' (display entries) by **BUNDLE1** and press **ENTER.**

b) The Active Entries screen appears. Note the start page and end page of the entry. Place a **'5'** (display) next to the entry and press **ENTER.**

c) Note that only Department **001** is contained in this spool entry. Press **ENTER.** The Active Entries screen appears. Press **ENTER.**

d) The Active Bundles screen will appear. Place a **'5'** (display entries) by **BUNDLE 2** and press **ENTER**.

e) Two active Bundle Entries will appear. Note the starting and ending pages of each. You may wish to display each entry at this time. When you are through, press **ENTER** and return to the Administrator Menu or command line.

11) End the Monitor.

Enter the following command (or select option **2** off of the Control System Execution Menu):

    ENDSOMON BPRT01

12) End the Bundle Manager.

Enter the following command (or select option **43** from the "Control System Execution Menu"):

    ENDBDLMGR

13) Delete the Monitor and Bundle Description.

a) Select option **2**, "Define Monitors" from the "Define System Menu". Select option **4** to delete Monitor **BPRT01.** Press **ENTER** to return to the menu.

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b) Select option **12**, "Define Bundle Specifications" from the "Define System Menu". Select option **4** to delete the Bundle Description **BUNDLE1 TEST** and **BUNDLE2 TEST**. Press **ENTER** to return to the Administration Menu.

14) Reset Active Classes.

a) Select option 2, "Control System Execution" and press ENTER. Select option 41, "Set Active Classes" from the "Control System Execution Menu". The SETACTCLS command parameters will be displayed. Press ENTER to accept the default parameter specifications.

b) When the "Set Active Classes" display appears, erase the "**XME**" Active Class Code specified earlier in this example. When finished, press **ENTER**. You will be returned to the "Control System Execution Menu". The Active Classes are now reset.

15) Clear and/or Delete the outqs.

If you have created the outqs for this exercise, enter the following commands at an OS/400 command line:

CLROUTQ OUTQ(BRODERICK/BPRT01)
DLTOUTQ OUTQ(BRODERICK/BPRT01)
CLROUTQ OUTQ(BRODERICK/BPRT01P)
DLTOUTQ OUTQ(BRODERICK/BPRT01P)

Note: Other examples use these outqs. You may wish to only clear the outqs at this time.

This completes the exercise. You may now wish to review the chapters referenced in this exercise to get a more detailed description of the areas covered here.