Message Router (MRTR) Operation and Installation Manual





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1 Introduction

1.1 Overview

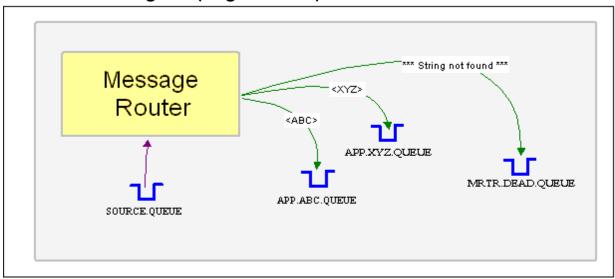
Message Router (MRTR) is a MQ application that will move a message from a central queue to a specific application queue. The destination queue that the message will be placed into will be based on a keyword in the message. Context information is maintained across the get then message put.

MRTR will look in the message for a Start Keyword and an End Keyword. The value between these two keywords is the Keyword Value (inifile Token).

MRTR will search its inifile for that particular Keyword Value. The field value associated with the lookup-ed keyword value is the destination queue name.

MRTR performs each MQGET and the subsequent MQPUT under a Unit of Work (UOW), so that message integrity is kept.

1.2 Context Diagram (Logical View)





2 Installing Message Router

This section describes how to install Capitalware's MRTR.

2.1 Windows Installation

To install MRTR on Windows, do the following instructions:

- Run the install program called: mrtr-setup.exe
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under *Start* -> *All Programs* called *MRTR*.
- To run MRTR, select the MRTR icon from within the MRTR folder.

The user may copy or ftp the mrtr.exe and mrtrc.exe files from one Windows server to another Windows server.

2.2 Unix and Linux Installation

To install MRTR on Unix or Linux, first unzip the **mrtr.zip** and then select the appropriate TAR file for the target platform. You will find 8 TAR files in the original ZIP file:

- AIX/mrtr aix.tar
- HPUX_IA64/mrtr_hpux_ia64.tar
- HPUX PA-RISC/mrtr hpux.tar
- Linux x86/mrtr linux x86.tar
- Linux POWER/mrtr linux power.tar
- Linux zSeries//mrtr linux zseries.tar
- Solaris SPARC/mrtr solaris.tar
- Solaris x86/mrtr solaris x86.tar

Steps to install the server-side security exit:

- 1. ftp or copy the selected TAR file to the target platform to the /opt/capitalware/ directory.
- 2. Un-tar the mrtr_xxx.tar file into the /opt/capitalware/ sub-directory (xxx is either aix, hpux, solaris or linux)

```
cd /opt/capitalware/
tar -xvf mrtr_xxx.tar
```



2.3 IBM i Installation

To install the MRTR on IBM i, first unzip the **mrtr.zip** and then select the files in the IBM i (iSeries) directory.

> mrtr.savf is the IBM i 'Save File' that contains MRTR

Steps to install MRTR:

1. Log onto the target IBM i server and do the following command:

```
CRTSAVF FILE(QGPL/MRTR)
```

2. ftp the IBM i files to the IBM i server as follows:

```
ftp -s:mrtr_iseries.ftp iseries_hostname
```

```
your-IBM i-userid
your-IBM i-password
binary
cd QGPL
put mrtr.savf
quit
```

3. Log onto the target IBM i server and do the following commands:

```
RSTLIB SAVLIB(MRTR) DEV(*SAVF) SAVF(QGPL/MRTR)
CLRSAVF FILE(QGPL/MRTR)
CHGOBJOWN OBJ(MRTR) OBJTYPE(*LIB) NEWOWN(QMQM)
```



2.4 z/OS Installation

To install the MRTR for z/OS, first unzip the **mrtr.zip**. The zip file contains 1 z/OS XMIT prepared dataset.

• MRTR.LOAD.ZOS is the XMIT dataset that contains the z/OS load-module.

Steps to install MRTR:

1. ftp the z/OS XMIT prepared datasets to the z/OS LPAR.

```
ftp -s:mrtr.ftp z/OS_hostname
```

```
your-z/OS-userid
your-z/OS-password
binary
quote SITE recfm=fb lrecl=80 blksize=3120
put MRTR.LOAD.ZOS
quit
```

If the user receives the following error message then they will need to pre-allocate the z/OS dataset:

ftp> put MRTR.LOAD.ZOS 200 Port request OK. 550-SVC99 RETURN CODE=4 S99INFO=0 S99ERROR=38656 HEX=9700 S99ERSN code X'000003F3'. 550 Unable to create data set xxxxxx.MRTR.LOAD.ZOS for STOR command.

To pre-allocate the XMIT dataset go to option 3.2 of ISPF and allocate the dataset: MRTR.LOAD.ZOS.

Use the following dataset attributes when allocating the dataset:

Space	
Units	BLOCKS
Primary Quantity	40
Secondary Quantity	40
Directory Blocks	0
DCB Parameters	
RECFM	FB
LRECL	80
BLKSIZE	3120
DsnType	Blank

After the user has pre-allocated the dataset, they can redo the ftp commands.



2. Log on to z/OS LPAR and issue the following TSO RECEIVE commands:

TSO RECEIVE INDATASET(MRTR.LOAD.ZOS)

After issuing the above commands, the following product dataset will appear:

• +HLQ+.CPTLWARE.MRTR.LOAD is the dataset that contains the z/OS load-module.



3 Starting MRTR

This section describes the various ways that the MRTR can be started. Currently, MRTR via WebSphere MQ's triggering system, manually or by a scheduling package.

3.1 Triggered Execution

If the local input queue has be setup for triggering (i.e. Trigger First) then when a message arrives on the input queue and the message count goes from 0 to 1 (trigger on first), the queue manager will start MRTR. The Backup component will begin processing each message on the input queue and writing the message's content including MQMD to a file.

3.2 Manual Execution

MRTR can be manually started from a Command Prompt. First change to the MRTR directory (i.e. C:\Capitalware\MRTR) and then type *mrtr.exe* and then press *Enter*.

3.3 Scheduled Execution

MRTR can be setup to be run under a scheduling package. (For example, Windows 2000 **Scheduled Task** service.) You may prefer to have MRTR executed daily. Therefore, use the scheduling package's tools to setup the necessary parameters for daily execution.

3.4 Command-line parameters

This section describes the required and optional command-line parameters for the MRTR.

mrtr.exe [-i Path_FileName_for_inifile]	
minicae 11 am 1 nervame 101 minie	

Required	Description
Parameter	
-i	The full path and filename of the MRTR IniFile.

3.5 z/OS Batch Execution

Here is a sample JCL to run MRTR:

```
//RUN01 EXEC PGM=MRTR, PARM='-i MRTRIN'
//STEPLIB DD DISP=SHR, DSN=+HLQ+.CPTLWARE.MRTR.LOAD
//SYSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//MRTRIN DD DISP=SHR, DSN=+HLQ+.CPTLWARE.INIFILE(MRTR)
```



4 IniFile Parameters

4.1 Logging

➤ **PerformLogging** specifies what type of logging the user wishes to have. PerformLogging supports 2 values: [Y / N], where Y is Yes and N is No. The default value is N.

PerformLogging =N

➤ **LogFile** specifies the location of the log file. The default is as follows:

For Windows:

LogFile=C:\Capitalware\MRTR\mrtr.log

For Unix:

LogFile=/opt/capitalware/MRTR/mrtr.log

➤ **LogMessage** will cause each message to be written to the log file (just the message data). LogMessage supports 2 values: [Y / N]. The default value is N.

LogMessage=N

4.2 MQ

➤ **GetWithConvert** causes MRTR to retrieve messages with or without MQGMO_CONVERT option. GetWithConvert supports 2 values: [Y / N]. The default value is Y.

GetWithConvert=Y

➤ **GetBufferSize** specifies the maximum message size to be retrieved from the input queue. GetBufferSize supports values from 1 to 104857600 (100MB). The default value is 65536.

GetBufferSize=65536

> TimeOut specifies time-out value for the MQGET function. TimeOut supports values from 1 to 2147483648. The default value is 10 seconds. *Note: To specify 'wait forever' set TimeOut to 0 (zero).*

TimeOut = 10

➤ QMgrName specifies the name of the queue manager. There is no default value.

QMgrName = MQA1



> InputQName specifies the name of the input queue. There is no default value.

InputQName = MQA1

> RouterDeadQ specifies the name of the Message Router's dead letter queue.. There is no default value.

RouterDeadQ = MRTR.DEAD.QUEUE

> StartKeyword specifies the beginning marker for the keyword value (token).

StartKeyword = ssssss

EndKeyword specifies the ending marker for the keyword value (token).

EndKeyword = eeeeee

tttttttt specifies the keyword value (token) that has a destination queue name associated with it. Note: Repeat this item for each keyword value (token) that is required.

ttttttt = APP.ABC.QUEUE

4.3 Other

➤ SequenceNumberFlag is a z/OS (OS/390) only flag. It states whether or not there are sequence numbers in columns 72 to 80. SequenceNumberFlag supports 2 values; [Y / N]. The default value is N.

SequenceNumberFlag = N



5 Log File

To verify that the process flow was successful, you can view the log file for the events that are generated.

5.1 Windows

The log file is located at the following (assuming a default install of C:\Capitalware\MRTR):

C:\Capitalware\MRTR\mrtr.log

```
2011/04/08 19:05:33 INFO 2011/04/08 19:05:33 INFO
                                             #00593:
#00597:
                                                         ***********
                                                         MRTR is now starting
2011/04/08 19:05:33 INFO
                                             #00605:
                                                         MRTR version 1.1.0 (Windows)
2011/04/08 19:05:33
2011/04/08 19:05:33
2011/04/08 19:05:33
                                                         Current Log file is mrtr.log
PerformLogging=Y
                                             #00608:
                                INFO
                               INFO
                                             #00611:
                               INFO
                                             #00819:
                                                         The following are the parameters used for this execution.
2011/04/08 19:05:33
                                             #00829:
                                                               GetWithConvert
                               INFO
2011/04/08 19:05:33
2011/04/08 19:05:33
                                                              Queue Manager Name: MQWT1
Input Queue Name : INPUT
                               INFO
                                             #00847:
                                             #00865:
                                                                                              INPUT. TEST. QUEUE
                               INFO
2011/04/08 19:05:33
2011/04/08 19:05:33
                                             #00884:
                                                               IA Dead Queue Name: MRTR.DEAD.Q
                                INFO
                                             #00894:
                                                               StartKeyword
                               INFO
                                                                                              <TASK>
2011/04/08 19:05:33
                                             #00904:
                                INFO
                                                               EndKeyword
                                                                                              </TASK>
2011/04/08 19:05:33
2011/04/08 19:05:33
                                                         TimeOut value : 0
Get Bufffer Size : 100000
MQConn CC=0 RC=0 on connection to MQWT1
                                             #00914:
                                INFO
                                             #00924:
                                INFO
2011/04/08 19:05:33
                                             #01321:
                               INFO
                                             #01502:
#01832:
2011/04/08 19:05:33
2011/04/08 19:05:39
                                                         MQOpen CC=0 RC=0 for INPUT.TEST.QUEUE
MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                                INFO
                                TNFO
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:43
2011/04/08 19:05:43
                                                         Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
MQCmit CC=0 RC=0
                                             #01969:
                                INFO
                                             #02001:
#02116:
#02199:
                                TNFO
                                TNFO
                                INFO
                                             #01832:
#01969:
#02001:
#02116:
#02199:
                                                         MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
                                INFO
                                INFO
                                INFO
                                INFO
                                                         MQCmit CC=0 RC=0
                                INFO
                                                         MQGet CC=0 RC=0
                               INFO
                                             #01832:
                                                                                     for INPUT.TEST.QUEUE
2011/04/08 19:05:43
2011/04/08 19:05:43
                                                         Found NoticeSent between <TASK> and </TASK> Output Queue will be OUTPUT.TEST.QUEUE1
                                INFO
                                             #01969:
                                INFO
                                             #02001:
                                             #02116:
2011/04/08 19:05:43
                                INFO
                                                         MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
2011/04/08 19:05:43
2011/04/08 19:05:44
                                                         MQCmit CC=0 RC=0
MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                                INFO
                                             #02199:
                                INFO
                                             #01832:
2011/04/08 19:05:44
                                                         Found NoticeSent between <TASK> and </TASK>
                                INFO
                                             #01969:
2011/04/08 19:05:44
2011/04/08 19:05:44
2011/04/08 19:05:44
                                                         Output Queue will be OUTPUT.TEST.QUEUE1 MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
                                INFO
                                             #02001:
                                INFO
                                             #02116:
                                INFO
                                             #02199:
                                                         MQCmit CC=0 RC=0
2011/04/08 19:05:47
2011/04/08 19:05:47
2011/04/08 19:05:47
                                             #01832:
                                                         MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                                INFO
                                                         Quit message received - time to go. MQClose CC=0 RC=0 for INPUT.TEST.QUEUE
                                             #01838:
                                INFO
                                             #01591:
                                INFO
2011/04/08 19:05:47
2011/04/08 19:05:47
2011/04/08 19:05:47
                                             #01403:
                                                         MQDisc CC=0 RC=0 on disconnecting from MQWT1
                                INFO
                                INFO
                                             #00973:
                                                         Statistics of this executions:
                                             #00983:
                                                               Messages Read
                                INFO
                                             #00993:
2011/04/08
                                INFO
                                                               Messages Written
2011/04/08 19:05:47
                                             #00999: MRTR is now stopping.
                               INFO
```



5.2 Unix and Linux

The log file is located at the following (assuming a default install of /opt/capitalware/MRTR/):

/opt/capitalware/MRTR/mrtr.log

```
#00593: **********************
2011/04/08 19:05:33 INFO
2011/04/08
               19:05:33
                           INFO
                                       #00597:
                                                  MRTR is now starting
                                                 MRTR version 1.1.0 (AIX)
Current Log file is mrtr.log
2011/04/08
               19:05:33
                           INFO
                                       #00605:
2011/04/08
               19:05:33
                           INFO
                                       #00608:
2011/04/08
               19:05:33
                           INFO
                                       #00611:
                                                  PerformLogging=Y
                           INFO
                                       #00819:
                                                  The following are the parameters used for this execution.
                           INFO
                                       #00829:
                                                      GetWithConvert
2011/04/08
               19:05:33
                           INFO
                                       #00847:
                                                      Queue Manager Name: MQWT1
2011/04/08
                                       #00865:
                                                      Input Queue Name
                                                                                  INPUT.TEST.QUEUE
                           INFO
2011/04/08
                           INFO
                                       #00884:
                                                      IA Dead Queue Name: MRTR.DEAD.Q
2011/04/08
                                       #00894:
                                                      StartKeyword
                           INFO
                                                                                  <TASK>
2011/04/08
                                       #00904:
                                                      EndKeyword
                           INFO
                                                                                  </TASK>
                                                      TimeOut value
Get Bufffer Size
                                       #00914:
                           INFO
                                       #00924:
                                                                                 100000
                           INFO
                                       #01321:
#01502:
                                                  MQCONN CC=0 RC=0 on connection to MQWT1 MQOPEN CC=0 RC=0 for INPUT.TEST.QUEUE
2011/04/08
                           INFO
2011/04/08
                           INFO
2011/04/08
                                       #01832:
                                                           CC=0 RC=0 for INPUT.TEST.QUEUE
               19:05:39
                           INFO
                                                  MQGet
                                                 Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
2011/04/08
               19:05:39
                                       #01969:
                           INFO
2011/04/08
2011/04/08
               19:05:39
19:05:39
                                       #02001:
                           INFO
                                       #02116:
                           INFO
2011/04/08
2011/04/08
2011/04/08
                                       #02199:
#01832:
                                                  MQCmit CC=0 RC=0
MQGet CC=0 RC=0
               19:05:39
19:05:39
                           INFO
                                                                          for INPUT.TEST.QUEUE
                           TNFO
                                      #01832:
#01969:
#02001:
#02116:
#02199:
#01832:
#01969:
#02001:
                                                 MQGET CC=0 RC=0 FOR INPULLEST.QUEUE
Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
MQCmit CC=0 RC=0
               19:05:39
                           INFO
2011/04/08
2011/04/08
2011/04/08
2011/04/08
               19:05:39
                           INFO
               19:05:39
19:05:39
                           INFO
                           INFO
2011/04/08
2011/04/08
2011/04/08
2011/04/08
2011/04/08
                                                                         for INPUT.TEST.QUEUE
between <TASK> and </TASK>
be OUTPUT.TEST.QUEUE1
               19:05:43
19:05:43
                                                  MQGet CC=0 RC=0 Found NoticeSent
                                                           CC=0 RC=0
                           INFO
                           INFO
               19:05:43
                           INFO
                                                  Output Queue will
                                       #02116:
#02199:
                                                  MQPut1 CC=0 RC=0 MQCmit CC=0 RC=0
               19:05:43
                           INFO
                                                                         for OUTPUT.TEST.QUEUE1
2011/04/08
2011/04/08
               19:05:43
                           INFO
               19:05:44
                                       #01832:
                                                           CC=0 RC=0 for INPUT.TEST.QUEUE
                           INFO
                                                  MQGet
2011/04/08
                                       #01969:
               19:05:44
                           INFO
                                                  Found NoticeSent between <TASK> and </TASK>
                                                  Output Queue will be OUTPUT.TEST.QUEUE1
2011/04/08
                                       #02001:
               19:05:44
                           INFO
2011/04/08
                                                  MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
               19:05:44
                           INFO
                                       #02116:
                                       #02199:
#01832:
                                                  MQCmit CC=0 RC=0
MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
2011/04/08
               19:05:44
                           INFO
2011/04/08
               19:05:47
                           INFO
2011/04/08
               19:05:47
                           INFO
                                       #01838:
                                                  Quit message received - time to go.
                                                  MQClose CC=0 RC=0 for INPUT.TEST.QUEUE
MQDisc CC=0 RC=0 on disconnecting from MQWT1
Statistics of this executions:
2011/04/08
               19:05:47
                           INFO
                                       #01591:
2011/04/08
               19:05:47
                            INFO
                                       #01403:
2011/04/08
               19:05:47
                           INFO
                                       #00973:
               19:05:47
19:05:47
2011/04/08
                                       #00983:
                            INFO
                                                      Messages Read
2011/04/08
                                       #00993:
                                                      Messages Written
                           INFO
2011/04/08 19:05:47
                                       #00999: MRTR is now stopping.
                           INFO
```



5.3 IBM i

The log file is located at the following (assuming a default install of QIBM/UserData/capitalware/MRTR/):

QIBM/UserData/capitalware/MRTR/mrtr.log

```
#00593:
#00597:
2011/04/08 19:05:33 INFO 2011/04/08 19:05:33 INFO
                                                         **********
2011/04/08 19:05:33
2011/04/08 19:05:33
                                INFO
                                                         MRTR is now starting
                                INFO
                                             #00605:
                                                         MRTR version 1.1.0 (iSeries)
                                                         Current Log file is mrtr.log
PerformLogging=Y
The following are the parameters used for this execution.
GetWithConvert: N
 2011/04/08
                 19:05:33
                                             #00608:
                                INFO
                                INFO
                                             #00611:
2011/04/08
                 19:05:33
                                             #00819:
                                INFO
2011/04/08
                                             #00829:
                                INFO
                                                               Queue Manager Name: MQWT1
Input Queue Name : INPUT
 2011/04/08
                                             #00847:
                                INFO
2011/04/08 19:05:33
                                             #00865:
                                INFO
                                                                                              INPUT.TEST.QUEUE
2011/04/08 19:05:33
2011/04/08 19:05:33
                                             #00884:
                                                               IA Dead Queue Name: MRTR.DEAD.Q
                                INFO
                                             #00894:
                                                               StartKeyword
                                INFO
                                                                                              <TASK>
                                                               EndKeyword
TimeOut value
2011/04/08 19:05:33
                                             #00904:
                                INFO
                                                                                               </TASK>
2011/04/08 19:05:33
2011/04/08 19:05:33
2011/04/08 19:05:33
                                             #00914:
                                INFO
                                                         Get Bufffer Size : 100000
MQConn CC=0 RC=0 on connection to MQWT1
                                             #00924:
                                TNFO
                                             #00924:
#01321:
#01502:
#01832:
#01969:
#02001:
#02116:
#02199:
#01832:
#01969:
#02001:
                                INFO
2011/04/08 19:05:33
2011/04/08 19:05:33
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
                                                          MQOpen CC=0 RC=0 for INPUT.TEST.QUEUE
MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                                INFO
                                INFO
                                                         Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
MQCmit CC=0 RC=0
                                INFO
                                INFO
                                INFO
                                INFO
                                                         MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
Found NoticeSent between <TASK> and </TASK>
Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
                                INFO
                                INFO
                                INFO
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:43
                                             #02116:
#02199:
                                INFO
                                                          MQCmit CC=0 RC=0
                                INFO
                                INFO
                                             #01832:
                                                          MQGet
                                                                     CC=0 RC=0
                                                                                     for INPUT.TEST.QUEUE
                                             #01969:
                                                          Found NoticeSent_between <TASK> and </TASK>
2011/04/08 19:05:43
                                INFO
                                                         Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
2011/04/08
                 19:05:43
                                INFO
                                             #02001:
2011/04/08 19:05:43
                                             #02116:
                                INFO
2011/04/08 19:05:43
2011/04/08 19:05:44
                                                          MQCmit CC=0 RC=0 MQGet CC=0 RC=0
                                INFO
                                             #02199:
                                INFO
                                             #01832:
                                                          MQGet
                                                                                     for INPUT.TEST.QUEUE
2011/04/08
                 19:05:44
                                INFO
                                             #01969:
                                                          Found NoticeSent between <TASK> and </TASK>
2011/04/08
2011/04/08
                 19:05:44
19:05:44
                                                         Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
                                INFO
                                             #02001:
                                             #02116:
                                INFO
2011/04/08 19:05:44
                                INFO
                                             #02199:
                                                          MQCmit CC=0 RC=0
 2011/04/08
                 19:05:47
                                             #01832:
                                                          MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                                INFO
                                                         Quit message received - time to go.
MQClose CC=0 RC=0 for INPUT.TEST.QUEUE
MQDisc CC=0 RC=0 on disconnecting from MQWT1
 2011/04/08
                                INFO
                                             #01838:
 2011/04/08
                 19:05:47
                                             #01591:
                                INFO
2011/04/08 19:05:47
                                INFO
                                             #01403:
 2011/04/08 19:05:47
                                INFO
                                             #00973:
                                                         Statistics of this executions:
2011/04/08 19:05:47
                                             #00983:
                                INFO
                                                              Messages Read
 2011/04/08 19:05:47
                                             #00993: Messages Written
#00999: MRTR is now stopping.
                                INFO
2011/04/08 19:05:47 INFO
```



5.4 z/OS

The log file is located at the following (assuming a default install of SYSPRINT):

```
#00593: *********************
2011/04/08 19:05:33 INFO
                                           #00597:
#00605:
                                                       MRTR is now starting.
MRTR version 1.1.0 (zOS)
Current Log file is SYSPRINT
2011/04/08 19:05:33
2011/04/08 19:05:33
                              TNFO
                              INFO
2011/04/08
                19:05:33
                                           #00608:
                              TNFO
2011/04/08
2011/04/08
2011/04/08
                19:05:33
19:05:33
19:05:33
                                           #00611:
#00819:
#00829:
                              INFO
                                                       PerformLogging=Y
                                                       The following are the parameters used for this execution.

GetWithConvert: N
                              INFO
                              INFO
2011/04/08
2011/04/08
2011/04/08
2011/04/08
                                                            Queue Manager Name: MQWT1
                                           #00847:
                19:05:33
                              INFO
                19:05:33
19:05:33
                                                            Input Queue Name : INPUT.TEST.
IA Dead Queue Name: MRTR.DEAD.Q
                                                                                           INPUT.TEST.QUEUE
                              INFO
                                           #00865:
                                           #00884:
                              INFO
                                           #00894:
#00904:
#00914:
                19:05:33
                                                            StartKeyword
                              INFO
                                                                                           <TASK>
                                                                                        : </TASK>
2011/04/08
2011/04/08
                19:05:33
                                                            EndKeyword
                              INFO
                                                       TimeOut value : 0
Get Bufffer Size : 100000
MQConn CC=0 RC=0 on connection to MQWT1
MQOpen CC=0 RC=0 for INPUT.TEST.QUEUE
                19:05:33
                              INFO
2011/04/08 19:05:33
2011/04/08 19:05:33
2011/04/08 19:05:33
                                           #00924:
#01321:
#01502:
                              INFO
                              INFO
                              INFO
2011/04/08 19:05:39
2011/04/08 19:05:39
2011/04/08 19:05:39
                                           #01832:
#01969:
                              INFO
                                                       MQGet
                                                                 CC=0 RC=0 for INPUT.TEST.QUEUE
                                                       Found NoticeSent between <TASK> and </TASK> Output Queue will be OUTPUT.TEST.QUEUE1
                               INFO
                              INFO
                                           #02001:
2011/04/08 19:05:39
                                           #02116:
                                                       MQPut1 CC=0 RC=0 for OUTPUT TEST QUEUE1
2011/04/08 19:05:39
2011/04/08 19:05:39
                                           #02199:
                                                        MQCmit CC=0 RC=0
                              INFO
                                           #01832:
                                                        MQGet
                                                                 CC=0 RC=0 for INPUT.TEST.QUEUE
2011/04/08
                19:05:39
                                           #01969:
                                                        Found NoticeSent between <TASK> and </TASK>
                              INFO
                                                       Output Queue will be OUTPUT.TEST.QUEUE1
MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1
                              INFO
                                           #02001:
                19:05:39
2011/04/08
                              INFO
                                           #02116:
2011/04/08
                              INFO
                                           #02199:
                                                        MQCmit CC=0 RC=0
                                           #01832:
#01969:
2011/04/08
                                                                  CC=0 RC=0
                              INFO
                                                        MQGet
                                                                                 for INPUT.TEST.QUEUE
                                                       Found NoticeSent between <TASK> and </TASK>
2011/04/08
                              INFO
                                           #02001:
#02116:
                                                       Output Queue will be OUTPUT.TEST.QUEUE1 MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1 MQCmit CC=0 RC=0
2011/04/08
                19:05:43
                              INFO
2011/04/08
                              INFO
2011/04/08
                19:05:43
                                           #02199:
                              INFO
2011/04/08 19:05:44
                                           #01832:
                                                                 CC=0 RC=0 for INPUT.TEST.QUEUE
                              INFO
                                                       MOGet
2011/04/08 19:05:44
2011/04/08 19:05:44
                                                       Found NoticeSent between <TASK> and </TASK> Output Queue will be OUTPUT.TEST.QUEUE1
                                           #01969:
                               INFO
                              INFO
                                           #02001:
2011/04/08
2011/04/08
                19:05:44
19:05:44
19:05:47
                                           #02116:
#02199:
                                                       MQPut1 CC=0 RC=0 for OUTPUT.TEST.QUEUE1 MQCmit CC=0 RC=0 MQGet CC=0 RC=0 for INPUT.TEST.QUEUE
                              TNFO
                              INFO
2011/04/08
                                           #01832:
                               TNFO
                                                       Quit message received - time to go.
MQClose CC=0 RC=0 for INPUT.TEST.QUEUE
MQDisc CC=0 RC=0 on disconnecting from MQWT1
                                           #01838:
#01591:
#01403:
2011/04/08 19:05:47
2011/04/08 19:05:47
2011/04/08 19:05:47
                              INFO
                               INFO
                              TNFO
2011/04/08 19:05:47
2011/04/08 19:05:47
2011/04/08 19:05:47
                                           #00973:
                                                       Statistics of this executions:
                              TNFO
                                           #00983:
#00993:
                              INFO
                                                            Messages Read
                                                            Messages Written
                              INFO
2011/04/08 19:05:47
                              INFO
                                           #00999: MRTR is now stopping
```



6 Appendix A - mrtr.ini file

The table below is the supplied mrtr.ini file. The IniFile supports the following keywords and their values:

InputQName = INPUT.TEST.QUEUE
RouterDeadQ = MQTR.DEAD.Q
StartKeyword= <TASK>
EndKeyword = </TASK>
NoticeSent = OUTPUT.TEST.QUEUE1

Note: Keywords are case sensitive.

Initialization keyword definitions:

➤ **PerformLogging** specifies what type of logging the user wishes to have. PerformLogging supports 2 values: [Y / N], where Y is Yes and N is No. The default value is N.

PerformLogging =N

LogFile specifies the location of the log file. The default is as follows:

For Windows:

LogFile=C:\Capitalware\MRTR\mrtr.log

For Unix:

LogFile=/opt/capitalware/MRTR/mrtr.log

➤ **LogMessage** will cause each message to be written to the log file (just the message data). LogMessage supports 2 values: [Y / N]. The default value is N.

LogMessage=N

➤ **GetWithConvert** causes MRTR to retrieve messages with or without MQGMO_CONVERT option. GetWithConvert supports 2 values: [Y / N]. The default value is Y.

GetWithConvert=Y

➤ **GetBufferSize** specifies the maximum message size to be retrieved from the input queue. GetBufferSize supports values from 1 to 104857600 (100MB). The default value is 65536.

GetBufferSize=65536



> TimeOut specifies time-out value for the MQGET function. TimeOut supports values from 1 to 2147483648. The default value is 10 seconds. *Note: To specify 'wait forever' set TimeOut to 0 (zero).*

TimeOut =10

➤ QMgrName specifies the name of the queue manager. There is no default value.

QMgrName = MQA1

> InputQName specifies the name of the input queue. There is no default value.

InputQName = MQA1

➤ **RouterDeadQ** specifies the name of the Message Router's dead letter queue.. There is no default value.

RouterDeadQ = MRTR.DEAD.QUEUE

> StartKeyword specifies the beginning marker for the keyword value (token).

StartKeyword = ssssss

EndKeyword specifies the ending marker for the keyword value (token).

EndKeyword = eeeeee

> tttttttt specifies the keyword value (token) that has a destination queue name associated with it. Note: Repeat this item for each keyword value (token) that is required.

ttttttt = APP.ABC.QUEUE

➤ **SequenceNumberFlag** is a z/OS (OS/390) only flag. It states whether or not there are sequence numbers in columns 72 to 80. SequenceNumberFlag supports 2 values; [Y / N]. The default value is N.

SequenceNumberFlag = N



7 Appendix A – Technical Support

The support for MRTR can be found at the following location (requires a support contract):

Online Help Desk Ticketing System at

www.capitalware.com/phpst/

By email at:

support@capitalware.com

By regular mail at:

Capitalware Inc. Attn: MRTR Support Unit 11, 1673 Richmond Street, PMB524 London, Ontario N6G2N3 Canada



8 Appendix D – Summary of Changes

- ➤ MRTR v1.1.0
 - o Added GetWithConvert keyword
 - o Enhanced commit/backout processing
 - o Created binaries/executables for all major platforms
- ➤ MRTR v1.0.0
 - o Initial release.



9 Appendix E - License Agreement

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