

**MQSeries Administration Wrapper  
User's Guide  
Version 1.0**

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**Note!**

Before using this information and the product it supports, be sure to read the general information under Appendix A, "Notices" on page 19.

**First edition (June 2000)**

This edition applies to Version 1.0 of MQSeries SupportPac MS0E, *MQSeries Administration Wrapper*, and to all subsequent releases and modifications until otherwise indicated in new editions.

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## The MQSeries Administration Wrapper

Using the MQSeries Administration Wrapper, an authorized user other than the MQSeries administrator can run specified MQSeries control commands and MQSC commands.

The MQSeries Administration Wrapper can be used with V5.0 and V5.1 of:

- MQSeries for AIX
- MQSeries for Sun Solaris
- MQSeries for Windows NT (running on Windows NT only)

You invoke the MQSeries Administration Wrapper using the `runmqadm` command, which is described in “The `runmqadm` command” on page 15. During an MQSeries Administration Wrapper session, you can enter a variety of MQSeries control and MQSC commands. If you are entering MQSC commands, the `RMQSC>` prompt is displayed. Otherwise, the `MQADM>` prompt is displayed. The program reads single lines of text from the console, which are passed to the relevant MQSeries programs for execution. All output from `runmqadm` goes to `stdout` or `stderr`.

Your authorization to run particular MQSeries control and MQSC commands is recorded in the MQSeries Administration Wrapper *configuration file*. For example, you can be authorized to manage MQSeries channels, but not to modify the definition of a message queue. An audit trail of all activity that occurs during the session is recorded in the MQSeries Administration Wrapper *log file*.

Note that the MQSeries Administration Wrapper has no effect on Programmable Command Formats (PCFs), which are processed by the command server.

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### Installing and configuring the MQSeries Administration Wrapper (Windows NT)

This section describes how to install the MQSeries Administration Wrapper in the Windows NT environment.

#### Installing the MQSeries Administration Wrapper (Windows NT)

To install the MQSeries Administration Wrapper:

1. If you have a previous version of the MQSeries Administration Wrapper installed, remove it. Type `runmqsrv -remove` to delete the entry in the services list, then erase the existing `runmqsrv` and `runmqadm` executables.
2. Create an installation directory (for example, `C:\Program Files\MQSeries\Wrapper`).
3. Copy all files to the installation directory.

The files are:

**runmqsrv.exe**

The MQSeries Administration Wrapper Service for Windows NT.

**runmqadm.exe**

The `runmqadm` command-line interface.

**mqadmin.cfg**

The MQSeries Administration Wrapper configuration file containing user IDs and their access levels.

**amqumsg.dll**

The Windows NT event message log DLL file.

**mqadevrg.reg**

The Windows NT registry update file for event message logging.

4. From the directory where the files are stored type:

```
runmqsrv -install
```

to install the service.

The message MQ Administration Service installed is displayed.

#### Configuring the MQSeries Administration Wrapper (Windows NT)

This section describes how to:

- Update the Windows NT registry
- Set up the MQSeries Administration Wrapper configuration file
- Set up the MQSeries Administration service

##### Updating the Windows NT registry

To update the registry:

1. Copy the event message log DLL file `amqumsg.dll` to the appropriate directory (`C:\Program Files\MQSERIES\bin`).
2. Edit the file `mqadevrg.reg` to add the drive and path of the event message log DLL file, as shown in Figure 1 on page 3.

```

REGEDIT4
$HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EventLog\
Application\MQSeries Admin Service
"EventMessageFile"="C:\\Program Files\\MQSERIES\\bin\\
amqmsg.dll"(See note below)
"TypesSupported"=dword:00000007

```

Figure 1. Editing mqadevrg.reg

Note the use of double back slash characters (\\) in this line instead of a single back slash characters.

3. From the installation directory, type

```
regedit mqadevrg.reg
```

to execute the registry update.

### The MQSeries Administration Wrapper configuration file

A user's authorization to issue a command is recorded in a *configuration file*. The file is simply a record of commands, showing for each an appropriate authorization level. You define the authorization level, in the range 0 through 9, required for any particular command and allowed for any user. Here is a suggested set of authorization levels, in the range 0 through 3, that you can use as a starting point. Be aware that this is simply an example, and that you can use levels in the range 0 through 9 if you prefer.

- Level 0** No access is allowed. This is the default setting.
- Level 1** Starting, stopping, pinging, and displaying the status of channels.
- Level 2** Displaying the attributes of any object, and altering the attributes of objects other than queues, queue managers, and channels.
- Level 3** Altering the attributes of any object, resetting or resolving channels, and issuing MQSeries control commands such as endmqm.

A user is authorized to issue commands that have that user's authorization level, or a lower level. For example, a user with level 2 authorization may issue commands with authorization levels 1 and 2, but may not issue commands with authorization level 3. A user with authorization level 0 is not authorized to issue any command.

Figure 2 on page 4 shows an example configuration file.

```
GLOBAL:
  LOGFILE=C:\PROGRA~1\MQSERIES\WRAPPER\AUDIT\runmqadm.log
  EXECPATH=C:\PROGRA~1\MQSERIES\BIN
  MAXAUTHLEVEL=9
  DEFAULTAUTHLEVEL=0
OSCOMMANDS:
  default=3
  STRMQM=1
  ENDMQM=1
  STRMQTRC=1
  ENDMQTRC=1
  USERPRG=2
SCCOMMANDS:
  default=3
  ALTER_NAMELIST=2
  ALTER_PROCESS=2
  DISPLAY_QLOCAL=2
  DISPLAY_QREMOTE=2
  DISPLAY_QMODEL=2
  DISPLAY_CHANNEL=2
  DISPLAY_CLUSQMGR=2
  DISPLAY_NAMELIST=2
  DISPLAY_QMGR=2
  DISPLAY_QUEUE=1
  DISPLAY_CHSTATUS=2
  START_CHANNEL=1
  STOP_CHANNEL=1
  PING_CHANNEL=1
USERS:
  Domain name\DAVEA=3
  Machine name\FREDID=1
```

Figure 2. An example configuration file (Windows NT)

The configuration file contains four stanzas of information (GLOBAL, OSCOMMANDS, SCCOMMANDS, and USERS), which are described in the remainder of this section.

**The GLOBAL stanza:** The LOGFILE entry in the GLOBAL stanza specifies the location of the log file.

Due to the way that the Windows NT operating system handles directory names with spaces, the format shown in Figure 2 must be used if multiple-word directory names are used in the path to the log file.

The EXECPATH entry sets the path to both MQSeries and user-defined executable programs. The EXECPATH value is automatically appended to any command entered at the MQADM> command prompt. If a command is entered with a path name other than the EXECPATH, it is replaced with the EXECPATH specified in the configuration file.

The MAXAUTHLEVEL and DEFAULTAUTHLEVEL entries allow you to set maximum and default authorization levels, in the range 0 through 9, for all users and commands. Note that neither DEFAULTAUTHLEVEL nor the user's authori-

zation level can be greater than MAXAUTHLEVEL. If either value is greater than MAXAUTHLEVEL, it is automatically set to the MAXAUTHLEVEL value.

**The OSCOMMANDS stanza:** Control commands that the specified users can enter at the MQADM> prompt must be listed in the OSCOMMANDS stanza with an appropriate authorization level. The default= value specifies the minimum authorization level required for control commands not explicitly listed in the OSCOMMANDS stanza.

User-written programs other than the control commands can be added to the OSCOMMANDS list. Any program added to the OSCOMMANDS list runs with mqm authority.

**The SCCOMMANDS stanza:** The MQSC commands that the specified users can enter at the RMQSC> prompt must be listed in the SCCOMMANDS stanza with an appropriate authorization level. The default= value specifies the minimum authorization level required for MQSC commands not explicitly listed in the SCCOMMANDS stanza.

**The USERS stanza:** The users to whom this configuration file applies are identified in the USERS stanza. Multiple users can be identified in a single file. For each user, an authorization level in the range 0 through 9 is specified. The user's authorization level must be the same as, or higher than, that assigned to any command the user wants to issue.

User names: are case sensitive; must be the same as the Windows NT user ID for the user; must not be longer than 15 characters; and must be specified as shown in Figure 2 on page 4.

### Protecting the configuration file

The configuration file needs to be protected appropriately. The protection should be at a higher level (for update) than mqm authority, if possible.

### Editing the configuration file

A sample configuration file is included in the MQSeries Administration Wrapper package. You must edit the file, however, and distribute it to relevant machines.

At a command prompt go to the MQSeries Administration Wrapper directory (for example, C:\Program Files\MQSeries\Wrapper) and edit the configuration file mqadmin.cfg. Comment lines in the configuration file must begin with the # character.

### Setting up the MQSeries Administration Service

You must have an MQSeries administrator user ID, and that user ID must be a member of group mqm, and a member of the Administrators and Users groups. Remove from group mqm any general users who do not require administration authority now that the MQSeries Administration Wrapper is to be used. However, do not remove MUSR - MQADMIN from group mqm. For information about creating an MQSeries administrator ID, see the Windows NT documentation.

To set up the MQSeries Administration Service:

1. Click **Start** → **Settings** → **Control Panel**.

The **Control Panel** window is displayed.

## Installing on Windows NT

2. In the **Control Panel** window, double click the Services icon to open the **Services** dialog.
3. In the **Services** dialog, click the MQ Administration Service entry and click **Startup**.

The **Service** dialog is displayed.

4. In the Startup Type pane of the **Service** dialog, select Automatic. This will allow the service to be started automatically during startup.
5. In the Log On As pane of the **Service** dialog, select This Account. Type the user ID and password for the MQSeries administrator user ID in the This Account fields.

Click **OK** to dismiss the dialog.

6. In the **Services** window, click **Start** to start the service, then click **Close** to close the **Services** dialog.

## The MQSeries Administration Wrapper log file (Windows NT)

To provide an audit trail, each line you enter during a runmqadm session is written:

- To the Windows NT Application Event Log.
- To the MQSeries Administration Wrapper log file. Each line recorded in the log file includes the user ID, a time stamp, and a process ID to identify the session.

### Setting up the log file

The runmqadm command must be issued from the installation directory the first time you use it. When you do this, the MQSeries Administration Wrapper log file (runmqadm.log) is created automatically in the directory specified on the LOGFILE entry in the configuration file. On NTFS drives only, when the file has been created, the system administrator must set the security permissions of the file (using standard Windows NT facilities) to enable selected users to write to the file or to read it. The user ID under which the MQSeries Administration Service runs *must* have write access to the file, otherwise no log records are written to the file. You are recommended to limit write access to the file to ensure that log records of unauthorized attempts to run commands are not themselves deleted. On FAT drives, no security is in place, so the log file is unprotected.

When runmqadm has been run for the first time, and the security permissions of the log file have been set, runmqadm is ready for use.

### How the log file is updated

If you issue a command that you are not authorized to use, the line you enter is written to the log file with a message appended to it indicating that its use was not authorized. The command is not executed.

If you issue a command that you are authorized to use, it is passed to a service called runmqsrsv, which runs with mqm authority and is started automatically during system startup. The runmqsrsv program takes the commands issued from the runmqadm session and executes them. Responses from control and MQSC commands issued during the session are written to stdout or stderr. They are also recorded in the MQSeries Administration Wrapper log file.

If the runmqsrsv service is not available when runmqadm tries to contact it, an error message is written to the log file and the runmqadm session terminates.

The log file grows indefinitely. It is the system administrator's responsibility to review the file for unauthorized commands and to prune the file.

Figure 3 shows an example of the MQSeries Administration Wrapper log file.

Fully Qualified User Name	Timestamp	PID	Result
LIPS2SRV\DAVEA	Tue Mar 28 13:32:20	2000 345	2
RUNMQADM started.			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:25	2000 345	1
D:\PROGRA~1\MQSERIES\BIN\RUNMQSC TEST			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:26	2000 345	2
D:\PROGRA~1\MQSERIES\BIN\RUNMQSC TEST 0			
04L1830,5639-B43 (C) Copyright IBM Corp. 1994, 1998. ALL RIGHTS RESERVED.			
Starting MQSeries Commands.			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:42	2000 345	1
DIS ql (s*) curdepth			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:43	2000 345	2
DIS ql (s*) curdepth 0			
1 : DIS ql (s*) curdepth			
AMQ8409: Display Queue details.			
QUEUE(SYSTEM.ADMIN.CHANNEL.EVENT)		CURDEPTH(0)	
AMQ8409: Display Queue details.			
QUEUE(SYSTEM.ADMIN.COMMAND.QUEUE)		CURDEPTH(0)	
LIPS2SRV\DAVEA	Tue Mar 28 13:32:45	2000 345	1
END			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:46	2000 345	2
END 0			
2 : END			
One MQSC command read.			
No commands have a syntax error.			
All valid MQSC commands were processed.			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:48	2000 345	1
D:\PROGRA~1\MQSERIES\BIN\USERPRG			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:51	2000 345	2
D:\PROGRA~1\MQSERIES\BIN\USERPRG 0			
LIPS2SRV\DAVEA	Tue Mar 28 13:32:51	2000 345	0
UNKNOWN_PROG			

Figure 3. The MQSeries Administration Wrapper log file (Windows NT). In the Result field: 0 means that the command was not accepted; 1 means that the command was accepted; and 2 means that the command was executed.

---

### Installing and configuring the MQSeries Administration Wrapper (UNIX systems)

This section describes how to install the MQSeries Administration Wrapper in AIX and Sun Solaris environments.

#### Installing the MQSeries Administration Wrapper (UNIX systems)

To install the MQSeries Administration Wrapper in the AIX or Sun Solaris environments:

1. Uncompress and unpack the tar file.
2. Log on as root.
3. Edit the RUNME script file if you want to modify the permissions on the configuration file (`/etc/mpadmin.cfg`) to allow a user other than root to edit it. You might also want to change the directory in which `runmqadm` is located.
4. Run the RUNME script, which copies the program and the configuration file into the correct locations and sets their permissions:

```
#ksh ./RUNME
```

#### Configuring the MQSeries Administration Wrapper (UNIX systems)

A user's authorization to issue a command is recorded in a *configuration file*. The file is simply a record of commands, showing for each an appropriate authorization level. You define the authorization level required for any particular command and allowed for any user. Here is a suggested set of authorization levels, in the range 0 through 3, that you can use as a starting point. Be aware that this is simply an example, and that you can use a wider range of authorization levels if you prefer.

- |                |   |
|----------------|---|
| <b>Level 0</b> | No access is allowed. This is the default setting.  |
| <b>Level 1</b> | Starting, stopping, pinging, and displaying the status of channels.   |
| <b>Level 2</b> | Displaying the attributes of any object, and altering the attributes of objects other than queues, queue managers, and channels.            |
| <b>Level 3</b> | Altering the attributes of any object, resetting or resolving channels, and issuing MQSeries control commands such as <code>endmqm</code> . |

A user is authorized to issue commands that have that user's authorization level, or a lower level. For example, a user with level 2 authorization may issue commands with authorization levels 1 and 2, but may not issue commands with authorization level 3. A user with authorization level 0 is not authorized to issue any command.

Figure 4 on page 9 shows an example configuration file.

```

# %Z% %W%           %I% %E% %U%
# RUNMQADM Configuration File
#
# Stanzas in here define
# - some global settings
# - authorities for all the known MQSC commands
# - authorities for all the known MQSeries commands
# - authorities for user-specified commands
# - authority level for each user

GLOBAL:
# Where's the log file to be put?
LOGFILE = /tmp/runmqadm.log
# For unknown users - what authority do they have? None by default.
DEFAULTAUTHLEVEL = 0

SCCOMMANDS:
# What's the authority for unlisted MQSC commands?
default = 3
# Here are all the commands known in MQSeries V5.1
# Even OS/390-specific commands are in here as we may be
# doing remote administration.
ALTER_CHANNEL      = 3
ALTER_NAMELIST     = 3
ALTER_PROCESS      = 2
ALTER_QALIAS       = 3
ALTER_QLOCAL       = 3
ALTER_QMGR         = 3
ALTER_QMODEL       = 3
ALTER_QREMOTE      = 3
ALTER_SECURITY     = 2
ALTER_STGCLASS     = 2

ALTER_TRACE        = 3
ARCHIVE_LOG        = 3
CLEAR_QLOCAL       = 3
DEFINE_BUFFPOOL    = 3
DEFINE_CHANNEL     = 3
DEFINE_MAXSMGS     = 3
DEFINE_NAMELIST    = 2
DEFINE_PROCESS     = 2
DEFINE_PSID        = 3
DEFINE_QALIAS      = 3
DEFINE_QLOCAL      = 3
DEFINE_QMODEL      = 3
DEFINE_QREMOTE     = 3
DEFINE_STGCLASS    = 3

```

Figure 4 (Part 1 of 4). An example configuration file (UNIX systems)

## Installing on UNIX systems

```
DELETE_CHANNEL = 3
DELETE_NAMELIST = 3
DELETE_PROCESS = 3
DELETE_QALIAS = 3
DELETE_QLOCAL = 3
DELETE_QMODEL = 3
DELETE_QREMOTE = 3
DELETE_STGCLASS = 3
DISPLAY_CHANNEL = 1
DISPLAY_CHSTATUS = 1
DISPLAY_CLUSQMGR = 2
DISPLAY_CMDSERV = 2
DISPLAY_DQM = 2
DISPLAY_MAXSMSGS = 2

DISPLAY_NAMELIST = 2
DISPLAY_PROCESS = 2
DISPLAY_QALIAS = 2
DISPLAY_QCLUSTER = 2
DISPLAY_QLOCAL = 2
DISPLAY_QMGR = 2
DISPLAY_QMODEL = 2
DISPLAY_QREMOTE = 2
DISPLAY_QUEUE = 2
DISPLAY_SECURITY = 2
DISPLAY_STGCLASS = 2
DISPLAY_THREAD = 2
DISPLAY_TRACE = 2
DISPLAY_USAGE = 2

PING_CHANNEL = 1
PING_QMGR = 1
RECOVER_BSDDS = 3
REFRESH_CLUSTER = 3
REFRESH_SECURITY = 3
RESET_CHANNEL = 3
RESET_CLUSTER = 3
RESET_TPIPE = 3
RESOLVE_CHANNEL = 3
RESOLVE_INDOUBT = 3
RESUME_QMGR = 3
RVERIFY_SECURITY = 3
START_CHANNEL = 1
START_CHINIT = 1
```

Figure 4 (Part 2 of 4). An example configuration file (UNIX systems)

```

START_CMDSERV      = 3
START_LISTENER    = 1
START_QMGR        = 3
START_TRACE       = 3
STOP_CHANNEL      = 1
STOP_CHINIT       = 1
STOP_CMDSERV      = 3
STOP_LISTENER     = 1
STOP_QMGR         = 3
STOP_TRACE        = 3
SUSPEND_QMGR     = 3

```

OSCOMMANDS:

```

# What's the authority for unlisted MQSeries commands?
default = 3
# Here are all the commmands known in MQSeries V5.1
# Anyone can start runmqsc, as we check individual commands later.
runmqsc      = 0
crtmqm       = 3
dlmqm        = 3
dmpmqlog     = 3
dspmqaut     = 3
dspmqcsv     = 3
dspmqfls    = 3
dspmqtrc     = 3
dspmqtrn     = 3

endmqcsv     = 3
endmqlsr     = 3
endmqm       = 3
endmqtrc     = 3
rcdmqimg     = 3
rcrmqobj     = 3
rsvmqtrn     = 3
runmqchi     = 1
runmqchl     = 1
runmqdlq     = 3
runmqlsr     = 1

```

Figure 4 (Part 3 of 4). An example configuration file (UNIX systems)

```
runmqtmc = 3
runmqtrm = 3
setmqaut = 3
strmqcsv = 3
strmqm = 3
strmqtrc = 3
# Any extra locally-defined commands can be configured here.
# Use a fully-qualified name unless it's in the same directory
# as the MQSeries commands (eg /opt/mqm/bin)
/tmp/unknowncmd = 1
/usr/lpp/mqm/samp/bin/amqsput= 1
crtmqcvx = 0

USERS:
metaylor = 2
root = 2
mqm = 3
```

Figure 4 (Part 4 of 4). An example configuration file (UNIX systems)

The configuration file contains four stanzas of information (GLOBAL, SCCOMMANDS, OSCOMMANDS, and USERS), which are described in the remainder of this section.

**The GLOBAL stanza:** The LOGFILE entry in the GLOBAL stanza specifies the location of the log file.

The DEFAULTAUTHLEVEL entry allows you to set default authorization levels for all users and commands.

**The OSCOMMANDS stanza:** Control commands that the specified users can enter at the MQADM> prompt must be listed in the OSCOMMANDS stanza with an appropriate authorization level. The default= value specifies the authorization level required for control commands not explicitly listed in the OSCOMMANDS stanza.

User-written programs other than the control commands can be added to the OSCOMMANDS list. Any program added to the OSCOMMANDS list runs with mqm authority. User-written programs should have fully qualified pathnames. By default, commands are assumed to be in /opt/mqm/bin (Sun Solaris) or /usr/lpp/mqm/bin (AIX).

**The SCCOMMANDS stanza:** The MQSC commands that the specified users can enter at the RMQSC> prompt must be listed in the SCCOMMANDS stanza with an appropriate authorization level. The default= value specifies the authorization level required for MQSC commands not explicitly listed in the SCCOMMANDS stanza.

**The USERS stanza:** The users to whom this configuration file applies are identified in the USERS stanza. Multiple users can be identified in a single file. For each user, an authorization level is specified. The user's authorization level must be the same as, or higher than, that assigned to any command the user wants to issue.

### Protecting the configuration file

The configuration file needs to be protected appropriately. The protection should be at a higher level (for update) than mqm authority, if possible.

### Editing the configuration file

A sample configuration file is included in the MQSeries Administration Wrapper package in `/etc/mqadmin.cfg`. You must edit the file, however, and distribute it to relevant machines. Comment lines in the configuration file must begin with the `#` character.

## The MQSeries Administration Wrapper log file (UNIX systems)

To provide an audit trail, each line you enter during a `runmqadm` session is written to the MQSeries Administration Wrapper log file. Each line recorded in the log file includes the user ID, a time stamp, and a process ID to identify the session.

### Setting up the log file

The `runmqadm` command must be issued from the installation directory the first time you use it. When you do this, the MQSeries Administration Wrapper log file (`runmqadm.log`) is created automatically in the directory specified on the `LOGFILE` entry in the configuration file.

On UNIX systems, the log file is readable only by the root user, although this can be changed after the log file has been created.

### How the log file is updated

If you issue a command that you are not authorized to use, the line you enter is written to the log file with a message appended to it indicating that its use was not authorized. The command is not executed.

If you issue a command that you are authorized to use, the command is executed, and responses from the command are recorded in the MQSeries Administration Wrapper log file.

The log file grows indefinitely. It is the system administrator's responsibility to review the file for unauthorized commands and to prune the file.

Figure 5 on page 14 shows an example of the MQSeries Administration Wrapper log file generated on a UNIX system.

## Installing on UNIX systems

```
[35802] metaylor      Thu May 11 09:46:57 2000 1
** Started runmqadm session **
[35802] metaylor      Thu May 11 09:47:03 2000 0
setmqaut
** NOT AUTHORISED **
[35802] metaylor      Thu May 11 09:47:09 2000 1
runmqsc linear
[35802] 04L1773,5765-B73 (C) Copyright IBM Corp. 1994, 1999  ALL RIGHT
RESERVED.
Starting MQSeries Commands.

[35802] metaylor      Thu May 11 09:47:16 2000 0
def q(zz)
** NOT AUTHORISED **
[35802] metaylor      Thu May 11 09:47:19 2000 1
dis q(x)
[35802]      1 : dis q(x)
AMQ8409: Display Queue details.
DESCR( )                PROCESS( )
BOQNAME( )              INITQ( )
TRIGDATA( )            CLUSTER( )
CLUSNL( )              QUEUE(X)
CRDATE(2000-03-21)     CRTIME(15.13.23)
ALTDATA(2000-03-21)    ALTTIME(15.13.23)
GET(ENABLED)           PUT(ENABLED)
DEFPRTY(0)             DEFPSIST(NO)
MAXDEPTH(5000)         MAXMSGL(4194304)
BOTHRESH(0)            SHARE
DEFSOPT(SHARED)        NOHARDENBO
MSGDLVSQ(PRIORITY)     RETINTVL(999999999)
USAGE(NORMAL)          NOTRIGGER
TRIGTYPE(FIRST)       TRIGDPH(1)
TRIGMPRI(0)           QDEPTHHI(80)
QDEPTHLO(20)          QDPMAXEV(ENABLED)
QDPHIEV(DISABLED)     QDPLOEV(DISABLED)
QSVCIINT(999999999)   QSVCIIEV(NONE)
DISTL(NO)              DEFTYPE(PREDEFINED)
TYPE(QLOCAL)           SCOPE(QMGR)
DEFBIND(OPEN)          IPPROCS(0)
OPPROCS(0)             CURDEPTH(0)
[35802] metaylor      Thu May 11 09:47:24 2000 1
end
[35802]      2 : end
One MQSC command read.
No commands have a syntax error.
All valid MQSC commands were processed.
[35802]metaylor      Thu May 11 09:47:25 2000 1
end
```

Figure 5. The MQSeries Administration Wrapper log file (UNIX systems)

The audit file must be protected. You are recommended to allow full access rights to a system administrator only; other users should have no access.

## The runmqadm command

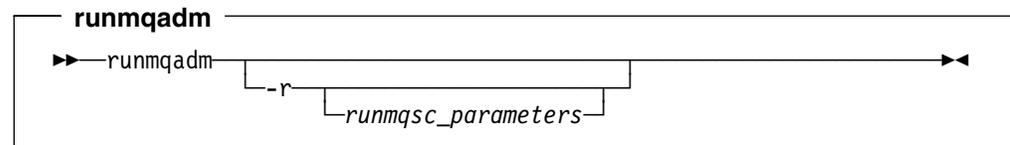
You use the runmqadm command to start an MQSeries Administration Wrapper session. When you use the command, the MQSeries Administration Wrapper checks your authorization to start runmqadm as recorded in the MQSeries Administration Wrapper configuration file. If your user ID is not in the configuration file, access is denied. If your user ID is in the configuration file, access is granted and your logged-in user ID and authorization level are displayed ahead of the MQADM> prompt. Your authorization to issue control and MQSC commands during the MQSeries Administration Wrapper session is as defined in the configuration file.

For commands entered at the MQADM> prompt, there are no explicit line-continuation capabilities.

To end the MQSeries Administration Wrapper session, type `exit`. Alternatively, you can use the EOF character (Ctrl+D on all platforms, or Ctrl+Z on Windows NT only), then press Enter.

An MQSC session is started when you enter `runmqsc` at the MQADM> command prompt. An MQSC session (denoted by the RMQSC> prompt) continues until you enter the end command, which returns you to the MQADM> prompt. Standard line-continuation characters are supported during an MQSC session. During an MQSC session, authority for a user to run a command is granted dependent on the first two tokens of the command. For example, a user can have authority to run `ALTER CHL` but not `ALTER QL`.

## Syntax of the runmqadm command



- r** Indicates that the entire session is to be run through the runmqsc control command, with stdin redirected from a file. If the `-r` flag is not specified, a general session is started in which you can enter any control command (including `runmqsc`) and any MQSC command. Any line beginning with an asterisk (\*) that is entered during the MQSC session is assumed to be an MQSC comment and is ignored (it is not written to the log file).

### *runmqsc\_parameters*

One or more parameters to the runmqsc control command can be specified on the same line as the runmqadm command. If specified, these parameters must be preceded by the `-r` flag.

## Examples of the runmqadm command

Here are two examples demonstrating the ways in which you can use runmqadm.

Figure 6 on page 16 shows the runmqadm command with the `-r` flag and parameters to the runmqsc command.

## The runmqadm command

```
$ runmqadm -r -w30 qmgr < amqscoma.tst
```

Figure 6. *runmqadm* with the *-r* flag. The parameters *-w30* and *qmgr* are passed to *runmqsc*. The redirection of *stdin* permits existing MQSC scripts (*amqscoma.tst* in this example) to be used without change.

Figure 7 shows the *runmqadm* command without the *-r* flag.

```
$ runmqadm
MQADM> strmqm qm1
MQSeries queue manager 'qm1' Started
MQADM> runmqsc qm1
(C) Copyright IBM 1999
Starting MQSeries Commands
RMQSC> dis qmgr
      1: dis qmgr
AMQ8408: Display Queue Manager Details
      DESCR()      DEADQ()
      CMDLEVEL(510) ...
RMQSC> alter ql(q1) ...
      NOT AUTHORIZED

end
      2:end
MQADM>
```

Figure 7. *runmqadm* without the *-r* flag. *runmqadm* entered without the *-r* flag starts the MQADM session.

In Figure 7:

- The first command entered (*strmqm qm1*) starts queue manager *qm1*.
- The second command entered (*runmqsc qm1*) starts an MQSC session for queue manager *qm1*.
- The first command entered at the RMQSC prompt (*dis qm1*) is authorized, so the details of the queue manager *qm1* are displayed.
- The second command entered at the RMQSC prompt (*alter ql*) is not authorized, so is not executed.
- The user ends the RMQSC session by entering the *end* command.
- The user is returned to the MQADM session, during which additional control commands can be entered.
- To end the MQADM session, the user would either type *exit* or enter the EOF character (Ctrl+D on all platforms, or Ctrl+Z on Windows NT only) and press Enter.

## Valid control commands

All control commands that are valid for the MQSeries product you are using can be entered at the MQADM prompt. In the Windows NT environment, errors resulting from any of these commands cause the error number, but not its associated description, to be displayed. For a description of the error associated with a particular error number, see the *MQSeries System Administration* book, SC33-1873.

To query the syntax of any control command within a runmqadm session, enter the command name followed by a question mark (?). For example, to query the syntax of crtmqm, enter `crtmqm ?`. Alternatively, see the descriptions of the control commands in the *MQSeries System Administration* book.

### Valid MQSC commands

All MQSC commands (and their synonyms) that are valid for the MQSeries product you are using can be entered at the RMQSC prompt.

For descriptions of the MQSC commands, see the *MQSeries Command Reference* book, SC33-1369.

## The runmqadm command

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## Appendix A. Notices

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