

MQGem Product Overview

```

Command Prompt - mqscx -m MYQM
DEFXMITQ( )          DESCR( )          DISTL(YES)         <more>
INHIBTEU(DISABLED)  IPADDRU(IPV4)     LOCALEU(DISABLED)
LOGGEREU(DISABLED)  MARKINT(5000)     MAXHANDS(256)
MAXMSG(4194304)     MAXPROPL(NOLIMIT) MAXPRTY(9)
MAXUMSGS(100000)    MONACLS(QMGR)     MONCHL(OFF)
MONQ(OFF)           PARENT( )         PERFMU(DISABLED)
PLATFORM(WINDOWSNT) PSMODE(ENABLED)   PSCLUS(ENABLED)
PSNPMSG(DISCARD)   PSNPRES(NORMAL)  PSRTYCNT(5)
PSSYNCP(IPPER)     QMID(MYQM_2013-05-26_11.34.34)
REMOETE(DISABLED)  REPOS( )         REPOSNL( )
ROUTEREC(MSG)       SCHINIT(QMGR)     SCMDSERU(QMGR)
SPLCAP(ENABLED)     SSLCRLNL( )       SSLCRYP( )
SLEU(DISABLED)      SSLFIPS(NO)
SSLKEYR(C:\mqmdata\mqgrs\MYQM\ssl\key) SSLKEYC( )
STATACLS(QMGR)      STATCHL(OFF)      STATINI(1800)
STATMQI(OFF)        STATQ(OFF)        STRSTPEU(ENAB)
SUIEB(NONE)         SYNCP             TREELIFE(1800)
TRIGINT(999999999) VERSION(07050000) XRCAP(YES)

MQQM>dis CHANNEL( )
    
```

MQSCX

MO71

NORTH/Queue List *+* Last Refresh on Wed - 18 Jun 2014 (09:53:16)

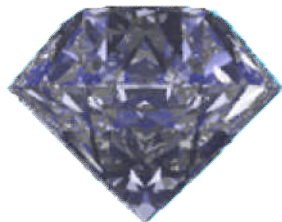
Queue Name:

Queue Type:

Queue Name	Type	Depth	Alt Date	Alt Time	Back Thresh	Base Type	Clus Pri	Rank	Use Q	Cr.Date
MQMON.Paul.53A152A2021E0020	Local	0	2014-06-18	09.53.08	0		0	0	Local	2014-
SYSTEM.ADMIN.ACCOUNTING.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CHANNEL.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CONFIG.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.LOGGER.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PERFM.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PUBSUB.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.QMGR.EVENT	Local	1	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.STATISTICS.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ROUTE.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.AUTH.DATA.QUEUE	Local	92	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.BROKER.ADMIN.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.CONTROL.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.DEFAULT.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.INTER.BROKER.COMMUNICATIONS	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.INITQ	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.SYNQ	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.CHLAUTH.DATA.QUEUE	Local	3	2014-06-18	09.49.25	0		0	0	Qmgr	2014-

52 / 52

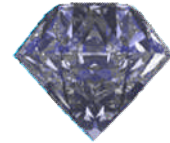
Refresh Usage... Browse... Cancel



MQGem Software

Paul Clarke
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support@mqgem.com

Agenda



MQGem
Software

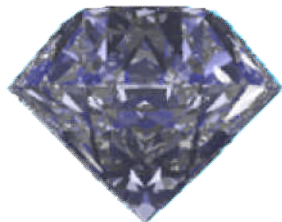
- MQSCX
 - Feature Overview
 - New features

- MO71
 - Feature Overview
 - New features
 - Demo

MQSCX (7.5.0)

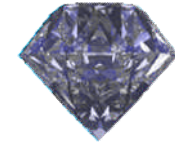
```
Command Prompt - mqscx -m MYQM
DEFXMITQ( )          DESCR( )          DISTL(YES)          <more>
INHIBTEU(DISABLED)  IPADDRU(IPV4)      LOCALEU(DISABLED)
LOGGEREU(DISABLED)  MARKINT(5000)      MAXHANDS(256)
MAXMSGL(4194304)    MAXPROPL(NOLIMIT)  MAXPRTY(9)
MAXUMSGS(10000)     MONACLS(QMGR)      MONCHL(OFF)
MONQ(OFF)           PARENT( )          PERFMEU(DISABLED)
PLATFORM(WINDOWSNT) PSMODE(ENABLED)    PSCLUS(ENABLED)
PSNPMSG(DISCARD)    PSNPRES(NORMAL)    PSRTYCNT(5)
PSSYNCPT(IPPER)     QMID(MYQM_2013-05-26_11.34.34)
REMOTEEU(DISABLED) REPOS( )           REPOSNL( )
ROUTEREC(MSG)       SCHINIT(QMGR)      SCMDSERU(QMGR)
SPLCAP(ENABLED)     SSLCRLNL( )        SSLCRYP( )
SSLEU(DISABLED)     SSLFIPS(NO)        SSLRKEYC(0)
SSLKEYR(C:\mqmdata\qmgrs\MYQM\ssl\key)
STATACLS(QMGR)      STATCHL(OFF)       STATINT(1800)
STATMQI(OFF)        STATQ(OFF)         STRSTPEU(ENABLED)
SUITEB(NONE)        SYNCPT             TREELIFE(1800)
TRIGINT(999999999) VERSION(07050000)  XRCAP(YES)

MYQM>dis CHANNEL<>
```



MQGem Software

Overview



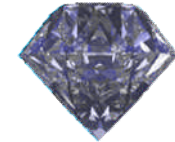
MQGem
Software

- Like RUNMQSC, but with so much more
 - Can be used interactively or in background
 - Fills many of the ‘holes’ in RUNMQSC
 - Runs as local or client bindings
 - More granular security
 - Less frustrating to use
 - More efficient and timely
 - Much Greater capabilities

```
Command Prompt - mqscx -m MYQM
DEFXMITQ< >          DESCR< >          DISTL<YES>          <more>
INHIBTEU<DISABLED>  IPADDRU<IPU4>        LOCALEU<DISABLED>
LOGGEREU<DISABLED>  MARKINT<5000>        MAXHANDS<256>
MAXMSGL<4194304>    MAXPROPL<NOLIMIT>    MAXPRTY<9>
MAXUMSGS<10000>     MONACLS<QMGR>        MONCHL<OFF>
MONQ<OFF>           PARENT< >            PERFMEU<DISABLED>
PLATFORM<WINDOWSNT> PSMODE<ENABLED>      PSCLUS<ENABLED>
PSNPMSG<DISCARD>    PSNPRES<NORMAL>     PSRTYCNT<5>
PSSYNCP<IFPER>      QMID<MYQM_2013-05-26_11.34.34>
REMOTEEU<DISABLED>  REPOS< >             REPOSNL< >
ROUTEREC<MSG>       SCHINIT<QMGR>        SCMDSERU<QMGR>
SPLCAP<ENABLED>     SSLCRLNL< >          SSLCRYP< >
SSLEU<DISABLED>     SSLFIPS<NO>          SSLRKEYC<0>
SSLKEYR<C:\mqmdata\mqmgs\MYQM\ssl\key>  STATINT<1800>
STATACLS<QMGR>      STATCHL<OFF>         STRSTPEU<ENABLED>
STATMQI<OFF>        STATQ<OFF>           TREELIFE<1800>
SUITEB<NONE>        SYNCPT               XRCAP<YES>
TRIGINT<999999999>  VERSION<07050000>

MYQM>dis CHANNEL<>
```


Command Retrieval



MQGem
Software

- What is more annoying than no command retrieval?
- MQSCX allows generic and targeted retrieval.
- Persisted across re-starts

Command Retrieval

The image shows two overlapping Command Prompt windows titled "Command Prompt - mqscx -m MYQM". The left window shows the following commands and output:

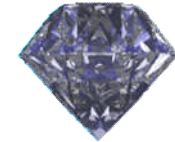
```
[13:38:59] DISPLAY QLOCAL<SYSTEM.ADMIN.CHANNEL.EVENT>
[13:39:07] CLEAR QLOCAL<SYSTEM.ADMIN.CHANNEL.EVENT>
AMQ8022: WebSphere MQ queue cleared.
[13:39:12] DEFINE QLOCAL<Q1>
AMQ8006: WebSphere MQ queue created.
MYQM>c1
```

The right window shows the following commands and output:

```
[13:38:59] DISPLAY QLOCAL<SYSTEM.ADMIN.C*
[13:39:12] CLEAR QLOCAL<SYSTEM.ADMIN.CHANNEL.EVENT>
AMQ8022: webSphere MQ queue cleared.
[13:39:12] DEFINE QLOCAL<Q1>
AMQ8006: WebSphere MQ queue created.
MYQM>CLEAR QLOCAL<SYSTEM.ADMIN.CHANNEL.EVENT>
```

A white arrow key is overlaid on the left window, pointing upwards. The URL <http://www.mqgem.com> is visible at the bottom left of the image.

Command Auto-Completion



MQGem
Software

- Pressing 'Tab' will tab through available values
- Forwards and backwards supported
- Tab through commands, attributes or values
- Tab through like-named items

Command Auto-Completion

Command Prompt - mqscx -m MYQM

```
DEFXMITQ< >          DESCR< >          DISTL<YES>          <more>
INHIBTEU<DISABLED>  IPADDRU<IPV4>      LOCALEU<DISABLED>
LOGGEREU<DISABLED>  MARKINT<5000>
MAXMSGSL<4194304>  MAXPROPL<NOLIMIT>
MAXUMSGS<10000>    MONACLS<QMGR>
MONQ<OFF>          PARENT< >
PLATFORM<WINDOWSNT> PSMODE<ENABLED>
PSNPMSG<DISCARD>   PSMPRES<NORMAL>
PSSYNCP<IFPER>     QMID<MYQM_2013-05-
REMOTEEU<DISABLED> REPOS< >
ROUTEREC<MSG>      SCHINIT< >
SPLCAP<ENABLED>    SSLCRLNL< >
SSLEU<DISABLED>    SSLFIPS<NO>
SSLKEYR<C:\mqmdata\qmgrs\MYQM\ssl\key> SSLRKEYC<0>
STATACLS<QMGR>    STATCHL<OFF>
STATMQI<OFF>      STATQ<OFF>
SUITEB<NONE>      SYNCPT
TRIGINT<999999999> UERSION<07050000>
```

MYQM>dis cha

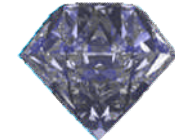
Command Prompt - mqscx -m MYQM

```
DEFXMITQ< >          DESCR< >          DISTL<YES>          <more>
INHIBTEU<DISABLED>  IPADDRU<IPV4>      LOCALEU<DISABLED>
LOGGEREU<DISABLED>  MARKINT<5000>
MAXMSGSL<4194304>  MAXPROPL<NOLIMIT>
MAXUMSGS<10000>    MONACLS<QMGR>
MONQ<OFF>          PARENT< >
PLATFORM<WINDOWSNT> PSMODE<ENABLED>
PSNPMSG<DISCARD>   PSMPRES<NORMAL>
PSSYNCP<IFPER>     QMID<MYQM_2013-05-26_11.34.34>
REMOTEEU<DISABLED> REPOS< >
ROUTEREC<MSG>      SCHINIT<QMGR>
SPLCAP<ENABLED>    SSLCRLNL< >
SSLEU<DISABLED>    SSLFIPS<NO>
SSLKEYR<C:\mqmdata\qmgrs\MYQM\ssl\key> SSLRKEYC<0>
STATACLS<QMGR>    STATCHL<OFF>
STATMQI<OFF>      STATQ<OFF>
SUITEB<NONE>      SYNCPT
TRIGINT<999999999> UERSION<07050000> XRCAP<YES>
```

MYQM>dis CHANNEL<

<http://www.mqgem.com>

Object name completion



MQGem
Software

- Pressing 'Tab' will tab through available values
- Forwards and backwards supported
- Tab through like-named items

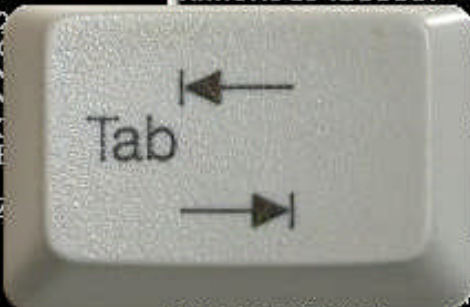
Object Name Auto-Completion

```
Command Prompt - mqscx -m MYQM
DEFXMITQ( )          DESCR( )          DISTL(YES)          <more>
INHIBTEU(DISABLED)  IPADDRU(IPU4)      LOCALEU(DISABLED)
LOGGEREU(DISABLED)  MARKINT(5000)
MAXMSGSL(4194304)   MAXPROPL(NOLIMIT)
MAXUMSGS(10000)     MONACLS(QMGR)
MONQ(OFF)           PARENT( )
PLATFORM(WINDOWSNT) PSMODE(ENABLED)
PSNPMMSG(DISCARD)  PSNPRES(NORMAL)
PSSYNCP(IFFER)     QMID(MYQM_2013-05-
REMOTEEU(DISABLED) REPOS( )
ROUTEREC(MSG)      SCHINIT(QMGR)
SPLCAP(ENABLED)    SSLCRLNL( )
SSLEU(DISABLED)    SSLFIPS(NO)
SSLKEYR(C:\mqdata\gmgrs\MYQM\ssl\key)
STATACLS(QMGR)     STATCHL(OFF)
STATMQI(OFF)       STATQ(OFF)
SUITEB(NONE)       SYNCPT
TRIGINT(999999999) VERSION(07050000)

MYQM>DISPLAY QLOCAL(system.ad)

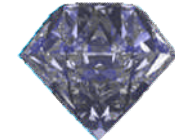
Command Prompt - mqscx -m MYQM
DEFXMITQ( )          DESCR( )          DISTL(YES)          <more>
INHIBTEU(DISABLED)  IPADDRU(IPU4)      LOCALEU(DISABLED)
LOGGEREU(DISABLED)  MARKINT(5000)
MAXMSGSL(4194304)   MAXPROPL(NOLIMIT)
MAXUMSGS(10000)     MONACLS(QMGR)
MONQ(OFF)           PARENT( )
PLATFORM(WINDOWSNT) PSMODE(ENABLED)
PSNPMMSG(DISCARD)  PSNPRES(NORMAL)
PSSYNCP(IFFER)     QMID(MYQM_2013-05-26_11.34.34)
REMOTEEU(DISABLED) REPOS( )
ROUTEREC(MSG)      SCHINIT(QMGR)
SPLCAP(ENABLED)    SSLCRLNL( )
SSLEU(DISABLED)    SSLFIPS(NO)
SSLKEYR(C:\mqdata\gmgrs\MYQM\ssl\key)
STATACLS(QMGR)     STATCHL(OFF)
STATMQI(OFF)       STATQ(OFF)
SUITEB(NONE)       SYNCPT
TRIGINT(999999999) VERSION(07050000)

MYQM>DISPLAY QLOCAL<SYSTEM.ADMIN.ACCOUNTING.QUEUE>
```



<http://www.mqgem.com>

Multiple Wildcards



MQGem
Software

- Wildcards can be specified anywhere
 - Wildcards '*' and '?' supported

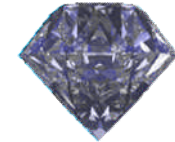
```
Command Prompt - mqscx -m MYQM
[22:06:25] DISPLAY QLOCAL<SYSTEM.ADMIN.*.EVENT>
QUEUE<SYSTEM.ADMIN.CHANNEL.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.COMMAND.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.CONFIG.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.LOGGER.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.PERFM.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.PUBSUB.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.QMGR.EVENT> TYPE<QLOCAL>
[22:06:31] DISPLAY QLOCAL<*.?????.*.EVENT>
QUEUE<SYSTEM.ADMIN.CHANNEL.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.COMMAND.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.CONFIG.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.LOGGER.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.PERFM.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.PUBSUB.EVENT> TYPE<QLOCAL>
QUEUE<SYSTEM.ADMIN.QMGR.EVENT> TYPE<QLOCAL>
MYQM>
```



<http://www.mqgem.com>

Multiple Wildcards

Extended WHERE clause



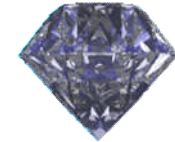
MQGem
Software

- Much more flexibility than standard WHERE
- Multiple expressions supported
- Greater list of operators
- Numeric expressions supported

```
Command Prompt - mqscx -m MYQM  
[09:37:57] DIS QLOCAL(*) =WHERE<CURDEPTH > MAXDEPTH * 0.5>  
QUEUE<Q.SMALL> TYPE<QLOCAL> CURDEPTH<51>  
MAXDEPTH<100>  
MYQM>
```



Separator Lines



MQGem
Software

- Helps see the wood from the trees
- Can use significantly less screen real estate

```
Command Prompt - mqscx -m MYQM
[22:14:10] DISPLAY AUTHINFO(*) all
AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.OCSP)  AUTHTYPE(OCSP)
OCSPURL( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)

AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.CRLLDAP)
AUTHTYPE(CRLLDAP)  CONNAME( )      LDAPUSER( )
LDAPPWD( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)
MYQM>

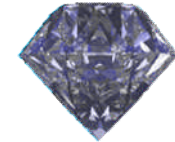
[22:13:32] DISPLAY AUTHINFO(*) all
AMQ8566: Display authentication inform
AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.OCSP)  AUTHTYPE(OCSP)
OCSPURL( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)
AMQ8566: Display authentication inform
AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.CRLLDAP)
AUTHTYPE(CRLLDAP)  CONNAME( )      LDAPUSER( )
LDAPPWD( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)
MYQM>

[22:12:24] DISPLAY AUTHINFO(*) all
AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.OCSP)  AUTHTYPE(OCSP)
OCSPURL( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)

AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.CRLLDAP)
AUTHTYPE(CRLLDAP)  CONNAME( )      LDAPUSER( )
LDAPPWD( )      DESCR( )      ALTDATE(2013-05-26)
ALTIME(11.34.39)
MYQM>
```



Synonyms



MQGem
Software

- Saves laborious typing
- Reduces the chances of making mistakes
- Can go further even define a single keystroke as a command

```
Command Prompt - mqscx -m MYQM

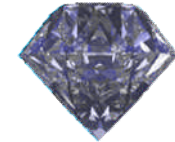
[21:34:25] =syn(XMIT) cmd(DISPLAY QLOCAL(*) =WHERE(USAGE EQ XMITQ AND NOT (QUEUE LK 'SYSTEM.*')) CURDEPTH)

[21:34:28] DISPLAY QLOCAL(*) =WHERE(USAGE EQ XMITQ AND NOT (
QUEUE LK 'SYSTEM.*')) CURDEPTH
QUEUE(CSQ1)      TYPE(QLOCAL)      CURDEPTH(0)      USAGE(XMITQ)
QUEUE(QM1)       TYPE(QLOCAL)      CURDEPTH(0)      USAGE(XMITQ)
QUEUE(QM2)       TYPE(QLOCAL)      CURDEPTH(0)      USAGE(XMITQ)
QUEUE(QM3.AIX)  TYPE(QLOCAL)      CURDEPTH(0)      USAGE(XMITQ)

MYQM>XMIT
```



Connecting and Disconnecting



MQGem
Software

- Allows connecting and disconnecting
 - All within same script
 - Connect as client or local bindings
 - Prompt changes depending on connected Queue Manager

```
Command Prompt - mqscx -m MYQM

[07:30:52] =conn qm<MYQM>
Connected to 'MYQM'

[07:30:57] DEFINE QLOCAL<Q1>
AMQ8006: WebSphere MQ queue created.

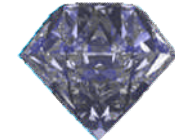
[07:31:05] =conn qm<MYQM2>
Connected to 'MYQM2'

[07:31:12] DEFINE QLOCAL<Q1>
AMQ8006: WebSphere MQ queue created.

MYQM2>
```



FIND clause



MQGem
Software

- Simpler way of just filtering by text
 - Text matched against any of the response
 - Much easier to get right than WHERE clause

```
Command Prompt - MQSCX - m MYQM

MQSCX Extended MQSC Program - Version 7.5.0
Licenced to Paul Clarke
Connected to 'MYQM'

[22:24:45] DISPLAY CHLAUTH(*) ALL =FIND(privileged)
CHLAUTH(*)          TYPE(BLOCKUSER)
DESCR(Default rule to disallow privileged users)
CUSTOM( )          USERLIST(*MQADMIN) WARN(NO)
ALTDATE(2013-05-26) ALTTIME(11.34.40)

MYQM>
```

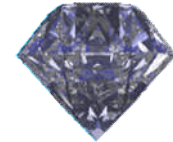
Somewhere
in the object it
says



<http://www.mqgem.com>

Filtering with =FIND Clause

Plus much more....



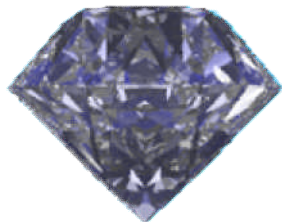
MQGem
Software

- Colour configuration
- Multiple commands on a single line
- Display totals
- Full prompt configuration
- Search through responses
- IMPORT other command files
 - Which can also IMPORT command files
-

MQSCX – New Features (Beta)

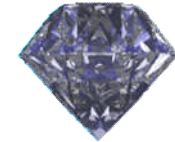
```
Command Prompt - mqscx -m MYQM
DEFXMITQ( )          DESCR( )          DISTL(YES)          <more>
INHIBTEU(DISABLED)  IPADDRU(IPV4)       LOCALEU(DISABLED)
LOGGEREU(DISABLED)  MARKINT(5000)       MAXHANDS(256)
MAXMSGL(4194304)    MAXPROPL(NOLIMIT)  MAXPRTY(9)
MAXUMSGS(10000)     MONACLS(QMGR)       MONCHL(OFF)
MONQ(OFF)           PARENT( )           PERFMEU(DISABLED)
PLATFORM(WINDOWSNT) PSMODE(ENABLED)     PSCLUS(ENABLED)
PSNPMSG(DISCARD)    PSNPRES(NORMAL)     PSRTCNT(5)
PSSYNCP(IPPER)      QMID(MYQM_2013-05-26_11.34.34)
REMOTEEU(DISABLED) REPOS( )            REPOSNL( )
ROUTEREC(MSG)       SCHINIT(QMGR)       SCMDSERU(QMGR)
SPLCAP(ENABLED)     SSLCRLNL( )         SSLCRYP( )
SSLEU(DISABLED)     SSLFIPS(NO)         SSLRKEYC(0)
SSLKEYR(C:\mqmdata\qmgrs\MYQM\ssl\key)
STATACLS(QMGR)      STATCHL(OFF)        STATINT(1800)
STATMQI(OFF)        STATQ(OFF)          STRSTPEU(ENABLED)
SUITEB(NONE)        SYNCPT              TREELIFE(1800)
TRIGINT(999999999) VERSION(07050000)  XRCAP(YES)

MYQM>dis CHANNEL( )
```



MQGem Software

CCDT Editing



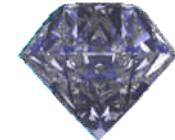
MQGem
Software

- MQSCX can be run in 'CCDT' mode
 - CLNTCONN channels can be defined, changed, deleted
 - CCDT can be created of any MQ version
 - Two CCDT files can be merged (by channel name)

```
MQ Environment : 750GA - mqscx -n

CCDT commands directed to file 'C:\mqmdata\AMQCLCHL.TAB'
MQSCX Extended MQSC Program - Version 7.5.1
Licenced to Paul Clarke
Licence Location: Home
[11:00:19] dis chl(*) conname =where(not(channel == "SYS*"))
CHANNEL(FRED)          CHLTYPE(CLNTCONN)    CONNAME(localhost(1415))
CHANNEL(NTPGC1.SRU)    CHLTYPE(CLNTCONN)    CONNAME(LOCALHOST)
CHANNEL(X)             CHLTYPE(CLNTCONN)    CONNAME(198.162.45.67)
Total display responses - Received:4 Matched:3
>
```

Namelist modification



MQGem
Software

- Modifying Namelists in MQSC script is awkward
 - Have to specify all names
- MQSCX allows values to be added or removed
 - No need to know what other values are there

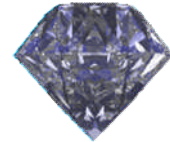
```
MQ Environment : 750GA - mqscx

MQSCX Extended MQSC Program - Version 7.5.1
Licenced to Paul Clarke
Licence Location: Home
Connected to 'NIPGC1'
[11:13:41] dis nl(EXAMPLE) names
NAMELIST(EXAMPLE)  NAMES(A,          B,          C)
Total display responses - Received:1

[11:13:57] alter nl(EXAMPLE) =add(D) =rmv(B)
AMQ8551: WebSphere MQ namelist changed.

[11:14:00] dis nl(EXAMPLE) names
NAMELIST(EXAMPLE)  NAMES(A,          C,          D)
Total display responses - Received:1
NIPGC1>
```

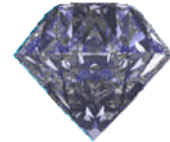

Control Language



MQGem
Software

- MQSC is a very static language
 - Very difficult to parse
 - No control constructs
 - Just a list of commands to execute
- MQSCX extends the language
 - Easy to process responses
 - Adds loops, if statements, list processing
 - User variables

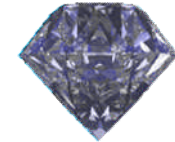
Control Language



MQGem
Software

- Extends MQSC uses enormously
 - Augment or modify command responses
 - Display consolidated result of multiple commands
 - Perform health checking
 - Perform monitoring
 - Write report file of Queue Manager status
 - Check objects against naming conventions
 - Bulk updates
 - For example, change all objects with a particular value

Control Language 'Top' Example



MQGem
Software

```
* Get the local queues and their depth and store in array

* First delete any previous results
delvar(@val)

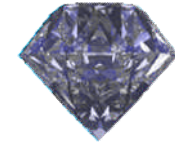
* Now, get a list of queues with messages
@i = 0;
foreach(DIS QL(*) CURDEPTH WHERE(CURDEPTH GT 0))
  @i = @i + 1
  @val[1,@i] = QUEUE
  @val[2,@i] = CURDEPTH
endfor

* Sort the array in descending order by second column
sortd(@val,2)

* Print out a screen full unless there are even less returned
if (_height)      @limit = _height-3; else @limit = 20; endif
if (@limit > @i) @limit = @i; endif

* Ok, print out the top few
@i = 0;
print :48:"Queue Name","Depth"
print :48:"=====", "====="
while(@i < @limit)
  @i = @i + 1
  print :48:@val[1,@i],:5:@val[2,@i]
endwhile
```

Control Language 'XmitQs' Example



MQGem
Software

* Get all the transmission queues

```
foreach(DISPLAY QUEUE(*) CURDEPTH WHERE(USAGE EQ XMITQ))
  * Is the depth non-zero ?
  if (curdepth > 0)
    @qname = QUEUE
    @depth = CURDEPTH
    * Read channel status for this queue
    foreach(DISPLAY CHSTATUS(*) WHERE(XMITQ EQ <@qname>))
      print @qname,"depth",@depth, CHANNEL,"is",STATUS
    endfor
    if (_matches = 0)
      print @qname,"depth",@depth,"No channel status"
    endif
  endif
endfor
```


MO71 (7.5.2)

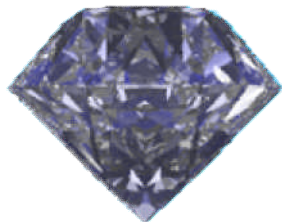
NORTH/Queue List * * * Last Refresh on Wed - 18 Jun 2014 (09:53:16)

Queue Name *
Queue Type *

Queue Name	Type	Depth	Alt Date	Alt Time	Back Thresh	Base Type	Clus Pri	Rank	Use Q	Cr.Date
MQMON.Paul.53A152A2021E0020	Local	0	2014-06-18	09.53.08	0		0	0	Local	2014-
SYSTEM.ADMIN.ACCOUNTING.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CHANNEL.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CONFIG.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.LOGGER.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PERFM.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PUBSUB.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.QMGR.EVENT	Local	1	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.STATISTICS.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ROUTE.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.AUTH.DATA.QUEUE	Local	92	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.BROKER.ADMIN.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.CONTROL.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.DEFAULT.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.INTER.BROKER.COMMUNICATIONS	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.INITQ	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.SYNCQ	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.CHLAUTH.DATA.QUEUE	Local	3	2014-06-18	09.49.25	0		0	0	Qmgr	2014-

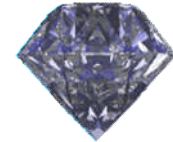
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Refresh Usage... Browse... Cancel



MQGem Software

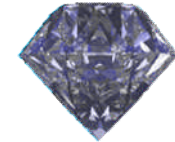
MO71 Overview



MQGem
Software

- **Windows GUI**
 - Multiple window design
 - Show what you want, where ever you want it.
 - Single EXE install, small (<2MB) and fast
- **Been around for almost 20 years**
 - Used by hundreds of customers all over the world
- **Very extensive list of features**
 - Not just configuration
 - Monitoring and Administration

Filtering



MQGem
Software

- Very simple and yet very powerful filtering
 - Simple Boolean expression
 - Expression controls what and how fields are displayed

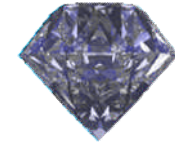
The screenshot shows a window titled "NORTH/Queue List" with a toolbar and a search filter. The filter is set to "cur & bgcell(cur>20,red,cur)". The table below displays the results of this filter, with the Depth column highlighted in red for the first four rows.

Queue Name	Type	Depth	Alt Date	Alt Time	Back Thresh	Clus Pri	Rank	Use Q	Cr.Date	Cr.Time	Def Bind	Def Opt	Def Pers
SYSTEM.AUTH.DATA.QUEUE	Local	108	2014-06-18	09.49.24	0	0	0	Qmgr	2014-06-18	09.49.24	On Open	Shared	Not Persister
Q5	Local	68	2014-06-18	10.04.37	0	0	0	Qmgr	2014-06-18	10.04.37	On Open	Shared	Not Persister
Q1	Local	57	2014-06-18	10.04.37	0	0	0	Qmgr	2014-06-18	10.04.37	On Open	Shared	Not Persister
Q2	Local	45	2014-06-18	10.04.37	0	0	0	Qmgr	2014-06-18	10.04.37	On Open	Shared	Not Persister
SYSTEM.CHLAUTH.DATA.QUEUE	Local	3	2014-06-18	09.49.25	0	0	0	Qmgr	2014-06-18	09.49.25	On Open	Shared	Not Persister
SYSTEM.RETAINED.PUB.QUEUE	Local	2	2014-06-18	09.49.24	0	0	0	Qmgr	2014-06-18	09.49.24	On Open	Shared	Not Persister
SYSTEM.HIERARCHY.STATE	Local	2	2014-06-18	09.49.25	0	0	0	Qmgr	2014-06-18	09.49.25	On Open	Shared	Persistent
SYSTEM.DURABLE.SUBSCRIBER.QUEUE	Local	2	2014-06-18	09.49.24	0	0	0	Qmgr	2014-06-18	09.49.24	On Open	Shared	Not Persister
SYSTEM.CLUSTER.REPOSITORY.QUEUE	Local	2	2014-06-18	09.49.24	0	0	0	Qmgr	2014-06-18	09.49.24	On Open	Shared	Not Persister
SYSTEM.ADMIN.QMGR.EVENT	Local	1	2014-06-18	09.49.24	0	0	0	Qmgr	2014-06-18	09.49.24	On Open	Exclusive	Not Persister

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Buttons: Refresh, Usage..., Browse..., Cancel

Filter Manager

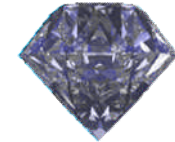


MQGem
Software

- Allows a name to be assigned to each filter
 - Handy if it's complicated
 - Or just to save typing
 - Each filter given a name and invoked with \$filtername
 - For example, **writedepth** below:

```
if (_first)
{
    @fd:= fopen("c:\\temp\\qs.csv", "w");
}
fprintf(@fd, "%s, %s, %d\n", date$_time, queue, curdepth);
if(_last)
{
    fclose(@fd);
}
1;
```


Multi-Queue Manager Dialogs



MQGem
Software

- Shows the results multiple Queue Managers
 - In the same dialog
 - Subject to the same filters
 - Uses less screen real-estate

NORTH[Multi QMgr]/Queue List 'Q1' Last Refresh on Wed - 18 Jun 2014 (16:35:57)

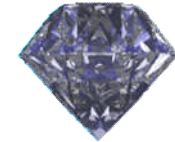
Queue Name: Q1

Queue Type: *

QMGR	Name	Type	Depth	Alt Date	Alt Time	Back Thresh	Clus Pri	Rank	Use Q	Cr.Date	Cr.Time	Def Bind	Def Opt	Def Pers	Def Pri	Def
WEST	Q1	Local	126	2014-06-18	10.04.38	0	0	0	Qmgr	2014-06-18	10.04.38	On Open	Shared	Not Persistent	0	Syn
SOUTH	Q1	Local	25	2014-06-18	10.04.37	0	0	0	Qmgr	2014-06-18	10.04.37	On Open	Shared	Not Persistent	0	Syn
NORTH	Q1	Local	57	2014-06-18	10.04.37	0	0	0	Qmgr	2014-06-18	10.04.37	On Open	Shared	Not Persistent	0	Syn
EAST	Q1	Local	8	2014-06-18	10.04.38	0	0	0	Qmgr	2014-06-18	10.04.38	On Open	Shared	Not Persistent	0	Syn

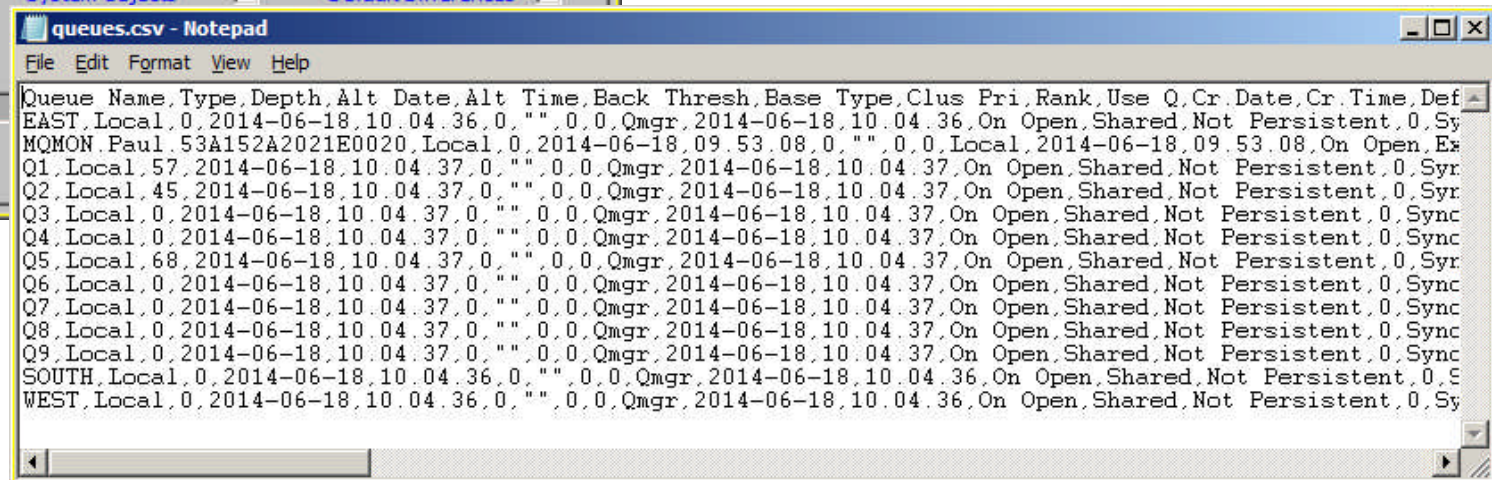
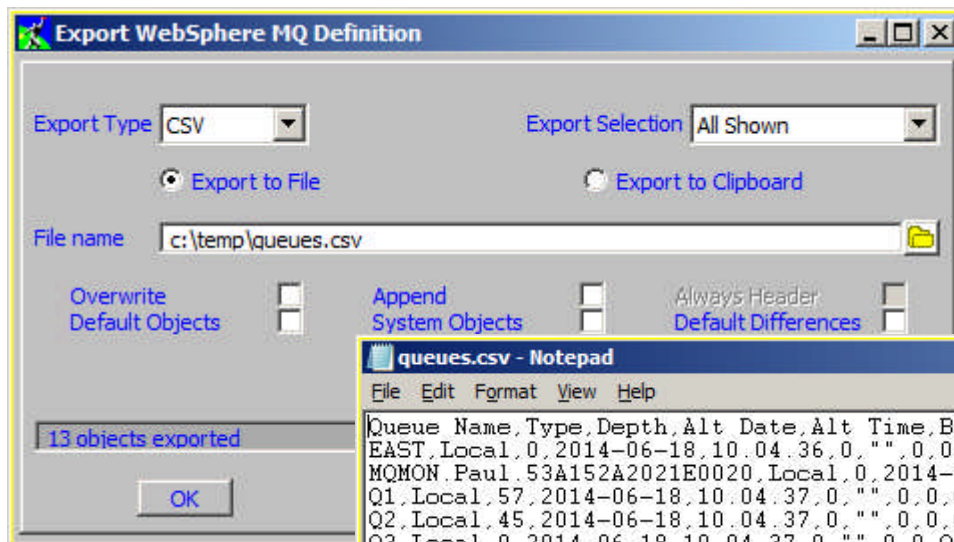
Refresh All Usage... Browse... Cancel 4 / 4

Export Objects

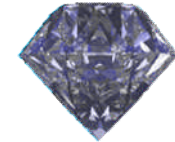


MQGem
Software

- All lists of MQ objects can be exported
 - To a file or the clipboard
 - In text, MQSC, CSV or XML formats
 - Various options to control what gets exported

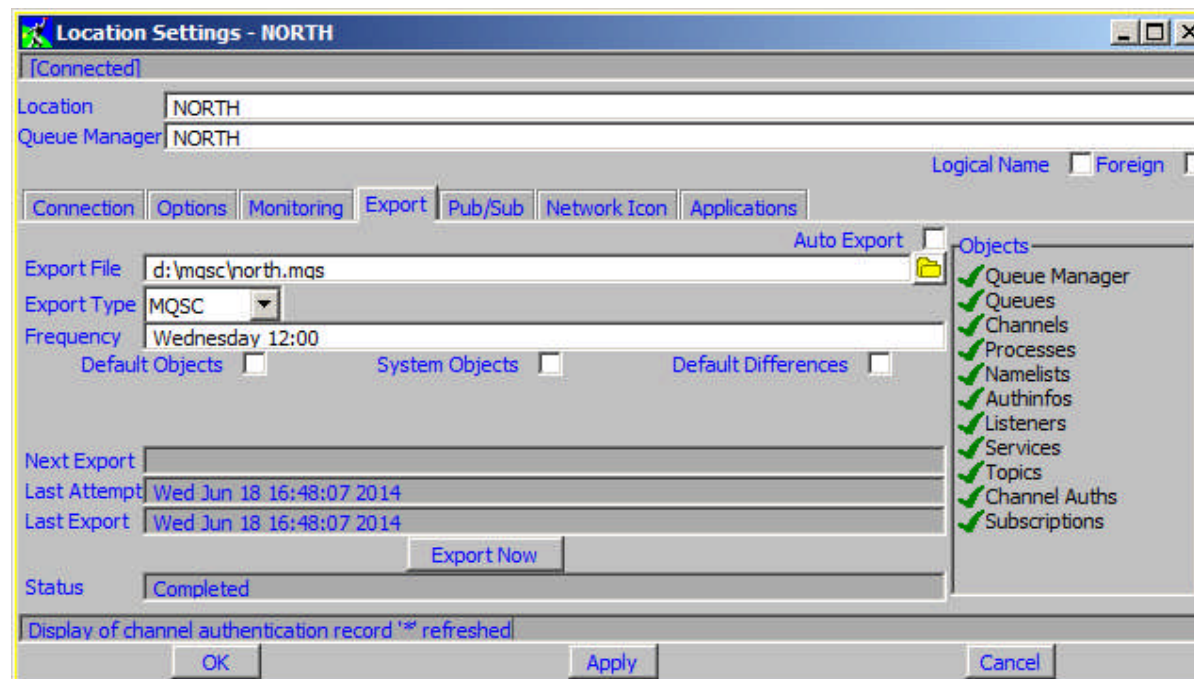


Exporting the whole Queue Manager

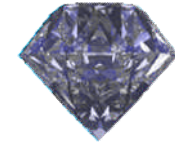


MQGem
Software

- Will save all the object definitions
 - Can be scheduled to run at any frequency
 - Again you can choose what gets exported
 - Such as default objects, system objects.



Comparing Definitions



MQGem
Software

- Compare definitions on any two Queue Managers
 - Shows which objects are different
 - Shows which attributes are different
- Allows object definitions to be synchronised

NORTH-SOUTH/Compare Queue List 'Q*'

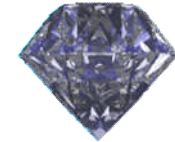
Queue Manager Name A NORTH
Queue Manager Name B SOUTH
Queue Name Q*
Queue Type *

Queue Name	Max Q Depth	Max Msg Length	Queue Name	Max Q Depth	Max Msg Length
Q1	5,000	4,194,304	Q1	5,000	4,194,304
Q2	5,000	4,194,304	Q2	5,000	4,194,304
■ Q3	6,000	4,194,304	Q3	5,000	4,194,304
Q4	5,000	4,194,304	Q4	5,000	4,194,304
◀ Q5	5,000	4,194,304	Q5		
Q6	5,000	4,194,304	Q6	5,000	4,194,304
▶ Q7			Q7	5,000	4,194,304
■ Q8	5,000	100,000	Q8	5,000	4,194,304
Q9	5,000	4,194,304	Q9	5,000	4,194,304

8 / 8 8 / 8

Refresh Refresh A Refresh B Synchronise... Cancel

Browser Access

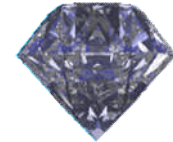


MQGem
Software

- View your MQ status from anywhere
 - Read-only
 - Fully configurable

Queue Name	Queue Type	Queue Depth
EAST <input type="checkbox"/>	Local	0
MQMON.Paul.53A152A202230020 <input type="checkbox"/>	Local	0
Q1 <input type="checkbox"/>	Local	57
Q2 <input type="checkbox"/>	Local	45
Q3 <input type="checkbox"/>	Local	0
Q4 <input type="checkbox"/>	Local	0
Q5 <input type="checkbox"/>	Local	68
Q6 <input type="checkbox"/>	Local	0
Q8 <input type="checkbox"/>	Local	0
Q9 <input type="checkbox"/>	Local	0
SOUTH <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.ACCOUNTING.QUEUE <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.ACTIVITY.QUEUE <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.CHANNEL.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.COMMAND.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.COMMAND.QUEUE <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.CONFIG.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.LOGGER.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.PERFM.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.PUBSUB.EVENT <input type="checkbox"/>	Local	0
SYSTEM.ADMIN.QMGR.EVENT <input type="checkbox"/>	Local	1
SYSTEM.ADMIN.STATISTICS.QUEUE <input type="checkbox"/>	Local	0

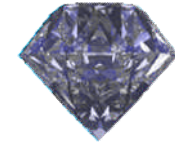
Event Monitoring



MQGem
Software

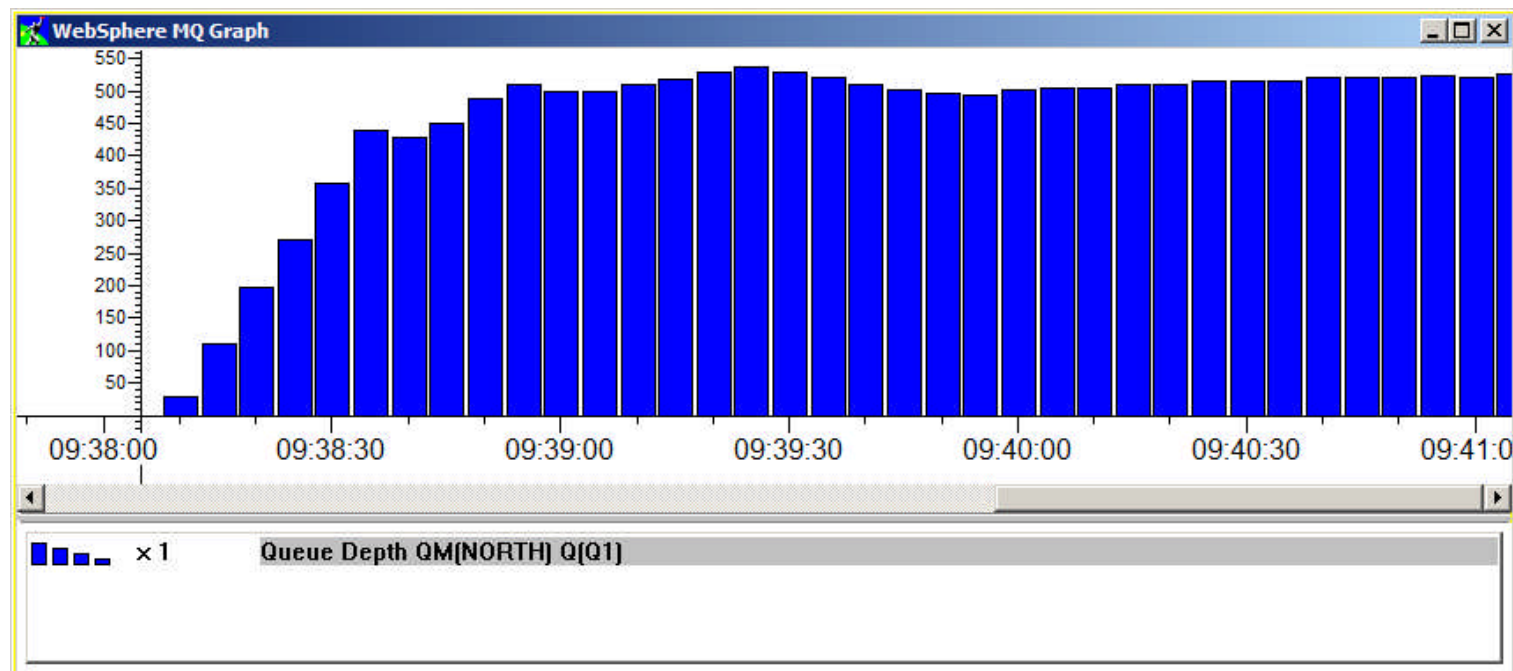
- Will 'listen' on any event queue for given event
 - Can filter by any event field
- Choice of event actions
 - Log to console
 - Log to a file
 - Send to another queue
 - Issue a command
 - Can be used to send email or pager etc

Graphing

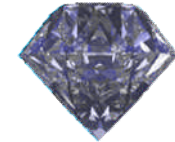


MQGem
Software

- Monitor virtual any numeric value
 - Set frequency, graph type etc
 - Graph multiple objects and object types
 - Export data-points to CSV



Predefined Dialogs



MQGem
Software

- Allow you to pre-set dialog...
 - Content
 - Even Multi-Queue Manager supported via qm() filter fn.
 - Filtering
 - Position and Size
 - Refresh rate
- Groups supported
 - Any number of dialogs can be started with single click

NORTH/Queue List *
Last Refresh on Thu - 19 Jun 2014 (10:06:34)

Queue Name *

Queue Type Local

* Usage=xmitq

Queue Name	Queue Type	Queue Depth
EAST	Local	0
SOUTH	Local	0
SYSTEM.CLUSTER.TRANSMIT.QUEUE	Local	0
WEST	Local	0

4 / 54

SOUTH/Queue List *
Last Refresh on Thu - 19 Jun 2014 (10:06:34)

Queue Name *

Queue Type Local

* Usage=xmitq

Queue Name	Queue Type	Queue Depth
EAST	Local	0
NORTH	Local	0
SYSTEM.CLUSTER.TRANSMIT.QUEUE	Local	0
WEST	Local	0

4 / 54

EAST/Queue List *
Last Refresh on Thu - 19 Jun 2014 (10:06:34)

Queue Name *

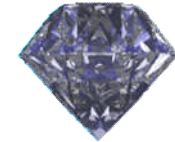
Queue Type Local

* Usage=xmitq

Queue Name	Queue Type	Queue Depth
NORTH	Local	0
SOUTH	Local	0
SYSTEM.CLUSTER.TRANSMIT.QUEUE	Local	0
WEST	Local	0

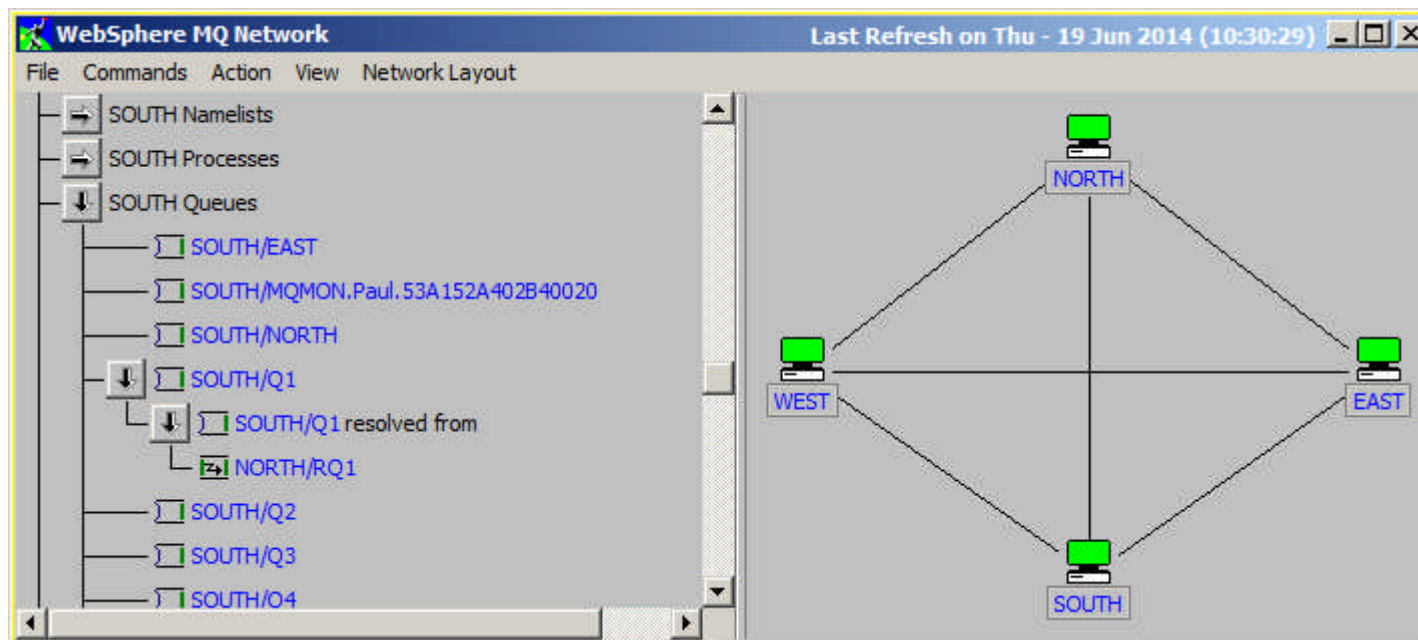
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Network Display



MQGem
Software

- Diagrammatic view of your network
 - Position Queue Managers with your own picture
- Verify view
 - Shows object resolution both to and from
 - Shows any health-check problems



MO71 (8.0.0) – Beta soon

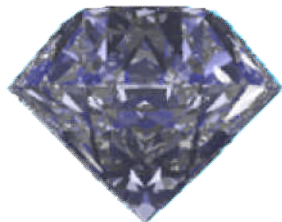
NORTH/Queue List *
Last Refresh on Wed - 18 Jun 2014 (09:53:16)

Queue Name *
Queue Type *

Queue Name	Type	Depth	Alt Date	Alt Time	Back Thresh	Base Type	Clus Pri	Rank	Use Q	Cr.Date
MQMON.Paul.53A152A2021E0020	Local	0	2014-06-18	09.53.08	0		0	0	Local	2014-
SYSTEM.ADMIN.ACCOUNTING.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CHANNEL.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.COMMAND.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.CONFIG.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.LOGGER.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PERFM.EVENT	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.PUBSUB.EVENT	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.QMGR.EVENT	Local	1	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.STATISTICS.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ACTIVITY.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.ADMIN.TRACE.ROUTE.QUEUE	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.AUTH.DATA.QUEUE	Local	92	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.BROKER.ADMIN.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.CONTROL.QUEUE	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.DEFAULT.STREAM	Local	0	2014-06-18	09.49.25	0		0	0	Qmgr	2014-
SYSTEM.BROKER.INTER.BROKER.COMMUNICATIONS	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.INITQ	Local	0	2014-06-18	09.49.39	0		0	0	Qmgr	2014-
SYSTEM.CHANNEL.SYNCQ	Local	0	2014-06-18	09.49.24	0		0	0	Qmgr	2014-
SYSTEM.CHLAUTH.DATA.QUEUE	Local	3	2014-06-18	09.49.25	0		0	0	Qmgr	2014-

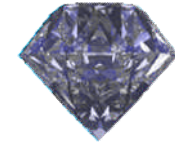
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Refresh Usage... Browse... Cancel



MQGem Software

MQ Version 8 Support

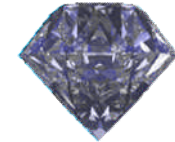


MQGem
Software

- New object attributes
- Support for V8 Userid/Password authentication
 - Via location dialog

The screenshot shows the 'Location Settings - NORTH' dialog box. The 'Location' and 'Queue Manager' fields are both set to 'NORTH'. The 'Logical Name' and 'Foreign' checkboxes are unchecked. The 'Options' tab is selected, showing fields for 'QM Group', 'Network Names', 'Via QM', 'Reply Queue' (SYSTEM.DEFAULT.MODEL.QUEUE), 'Reply Prefix', 'Command Queue' (SYSTEM.ADMIN.COMMAND.QUEUE), and 'Server Queue'. At the bottom, the 'Client' checkbox is unchecked, and the 'Userid' checkbox is checked and highlighted with a red box. Other options include 'MVS', 'Auto Connect', 'Security Exit Only', 'Cache on Success Only', 'Retry Interval' (0), and 'Disconnect Interval' (0). The 'OK', 'Apply', and 'Cancel' buttons are at the bottom.

Application List



MQGem
Software

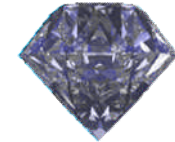
- List of applications
 - Generate dynamically from monitoring
 - Show status, inactive, running or error
 - Shows history of objects opened by the application
 - Including last used times

The screenshot shows a window titled "NORTH/Application List" with a refresh button and a timestamp "Last Refresh on Thu - 19 Jun 2014 (16:08:56)". Below the title bar are search filters for Application, Description, Nickname, Group, and Type (set to Application). The main area contains a table with the following data:

Name	Type	Application Type	Connections
WebSphere MQ Distributed Pub/Sub Publish Task	Application	System	0
WebSphere MQ Distributed Pub/Sub Fan Out Task	Application	System	0
WebSphere MQ Distributed Pub/Sub Controller	Application	System	0
WebSphere MQ Distributed Pub/Sub Command Task	Application	System	0
WebSphere MQ Deferred Message Processor	Application	System	0
WebSphere MQ Command Server	Application	System	0
WebSphere MQ Cluster Repository	Application	System	0
WebSphere MQ Channel Initiator	Application	Chinit	0
MQSCX	Application	User	0
MO71	Application	User	0
d:\nttools\q.exe	Application	User	0

At the bottom of the window, there are buttons for "Refresh", "Connectors...", and "Cancel", along with a page indicator "15 / 15".

Application View

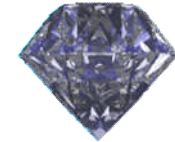


MQGem
Software

- Shows status of applications in a diagram
 - Choose what applications to show...and where
 - Whether application is active and/or has queue open
 - User picture can be assigned to an application



Pricing

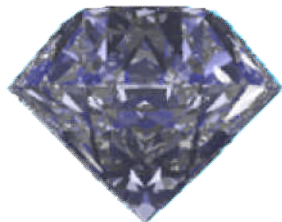


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	Single User/Single Machine Per year	Site Licence Per year
MQSCX	£29.99	£299.99
MO71	£49.99	£399.99

- Licences are purchased per time unit.
 - They can be bought for 1,2 or 3 years.
- Site licence
 - A site licence covers as many users as necessary provided they are all at the same site (postal address). Users at a different site will require another Diamond licence.
- Licences can be purchased from www.mqgem.com
 - Or software reseller or via email/bank transfer

Any Questions?



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