ASF 3.3 with CICS
Document Connect for ASF

Installation on AIX Server
Setup Server-to-Host Connection using WebSphere MQ

Edition: 1.1

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1 MQ Definitions under AIX

1.1 Define the MQ Objects

First create and start a queue manager (for example PASF33Q) using the following commands:

```
crtmqm PASF33Q
strmqm PASF33Q
```

Use the following MQSC commands to define a sender, a receiver channel, two local queues, one remote queue and a process for each connection.

```
DEFINE CHANNEL(ASF33DB2.ORX64A.TCP) CHLTYPE(SDR) CONNAME('9.152.87.231(1415)') TRPTYPE(TCP)
XMITQ(ASF33DB2)  DISCINT(0)
DEFINE CHANNEL(ORX64A.ASF33DB2.TCP) CHLTYPE(RCVR) TRPTYPE(TCP)
DEFINE QLOCAL(REPLY.ASF33DB2) PUT(ENABLED) GET(ENABLED) USAGE(NORMAL)
DEFINE QLOCAL(ASF33DB2) PUT(ENABLED) GET(ENABLED) USAGE(XMITQ) PROCESS(PROC.QE71)
DEFINE QREMOTE(ASF33DB2.ALIAS) PUT(ENABLED) RNAME(QUERY.ORX64A.ASF33DB2) RQMNAME(QE71)
XMITQ(ASF33DB2)
DEFINE PROCESS(PROC.QE71) APPLTYPE(UNIX)
```

The MQSC commands can be defined in a file with a name of your choice, for example MQDefinition.txt. They can be executed with the following command:

```
rummqsc PASF33Q </MQDefinition.txt
```

Note: PASF33Q is the name of the AIX queue manager as defined above.

1.2 Define a TCP/IP connection

The “inetd” daemon on the server must be configured to start the MQI channels. To proceed, log on as root and configure the following files:

1. Add a line in the /etc/services file:

   ```
   MQSeries      1414/tcp
   ```

   where 1414 is the port number required.

   Note: 1414 is the default value of the port number.

   Alternatively, you can use a different port number, for example 1415. To do so add the line:

   ```
   MQSeries      1415/tcp
   ```

2. Add a line in the file inetd.conf to call the program `amqcrsta`:

```
MQSeries stream tcp nowait root /mqmtop/bin/amqcrsta amqcrsta
[-m PASF33Q]
  PASF33Q is the queue manager name
  mqmtop is the installation directory

Note:
Your input is case sensitive.
```

3. The updates are active after you issue the following command from the root user ID:

```
refresh -s inetd
```

1.3 Run the MQ Listener and start the Sender channel

To run the listener supplied with MQSeries use the RUNMQLSR command:

```
runmqlsr –t tcp -m PASF33Q –p 1415

-m PASF33Q   is the queue manager
-p 1415      is the port
```

To start the sender channel use the RUNMQCHL command:

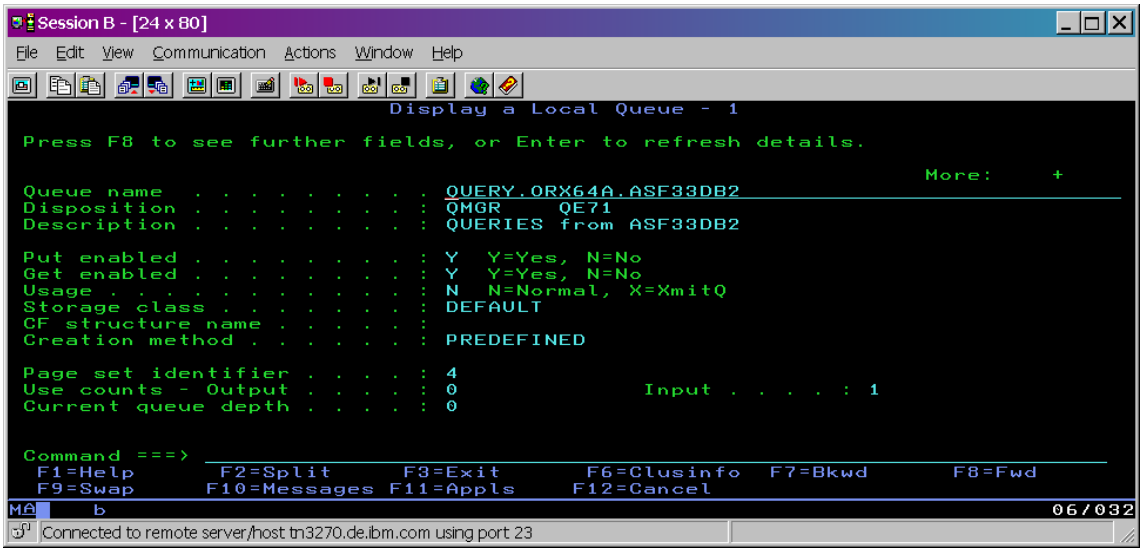
```
runmqchl –c ASF33I7.ORX64A.TCP –m PASF33Q
```

2 MQ Definitions under z/OS

The MQ definitions are done within queue manager QE71 listening to port 1415.
For each connection the following definitions are needed:

- A local queue
- A remote queue
- An XMIT queue
- A sender channel
- A receiver channel
- A process
- An initiation queue

2.1 Define a Local (Query) Queue (from AIX)



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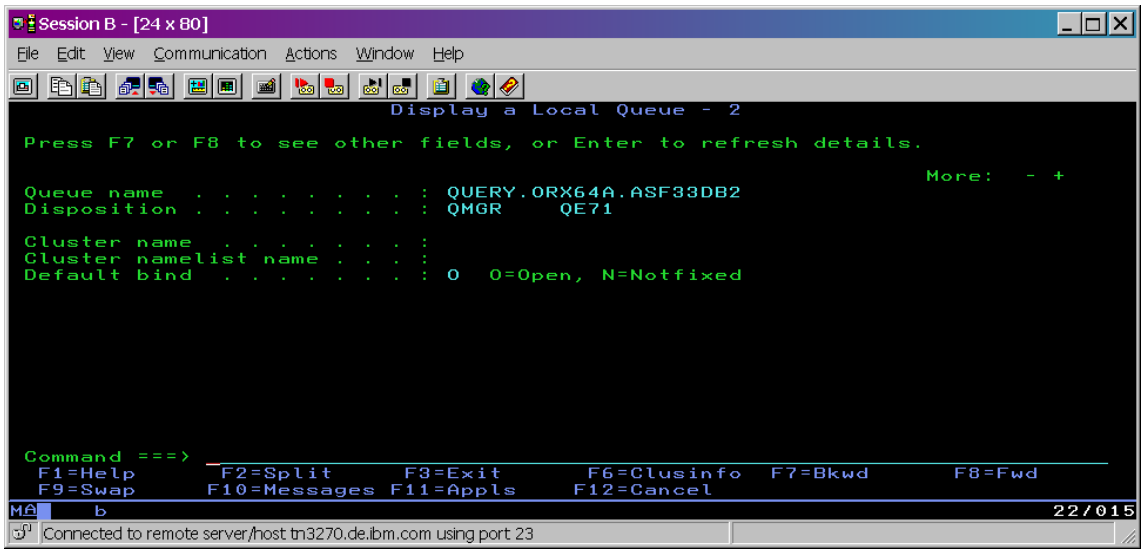

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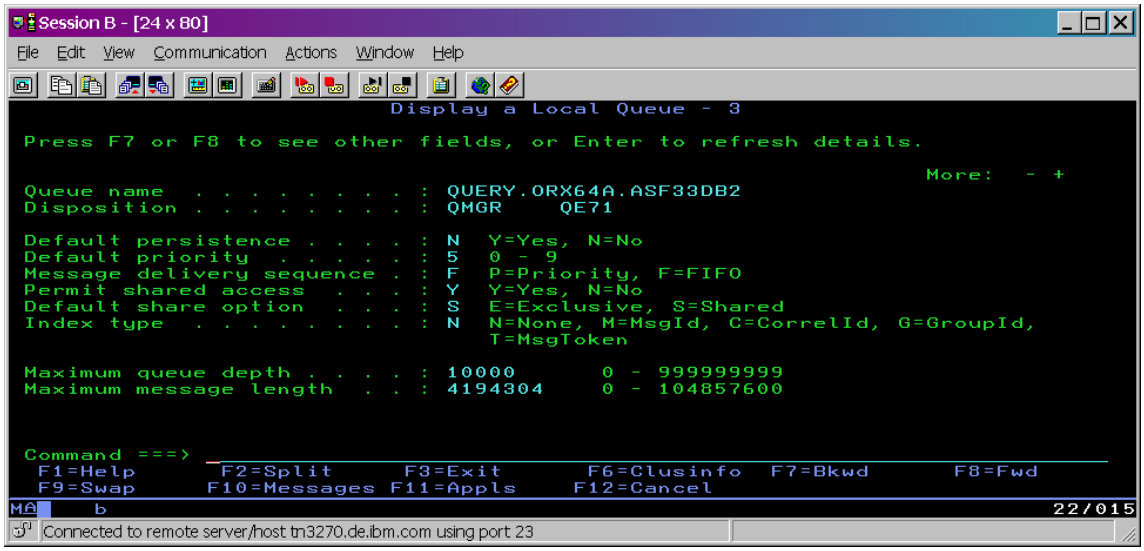

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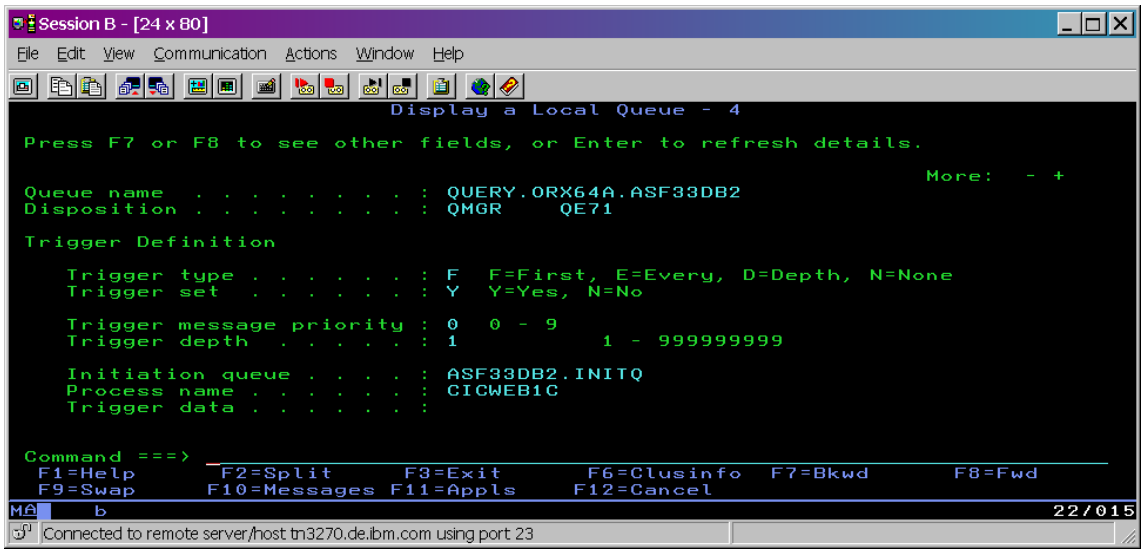

The process name CICWEB1C is described in „Define a Process“. The initiation queue ASF33DB2.INITQ is described in „Define a Initiation Queue“ and „MQ and CICS Bridge“.

Press F8.

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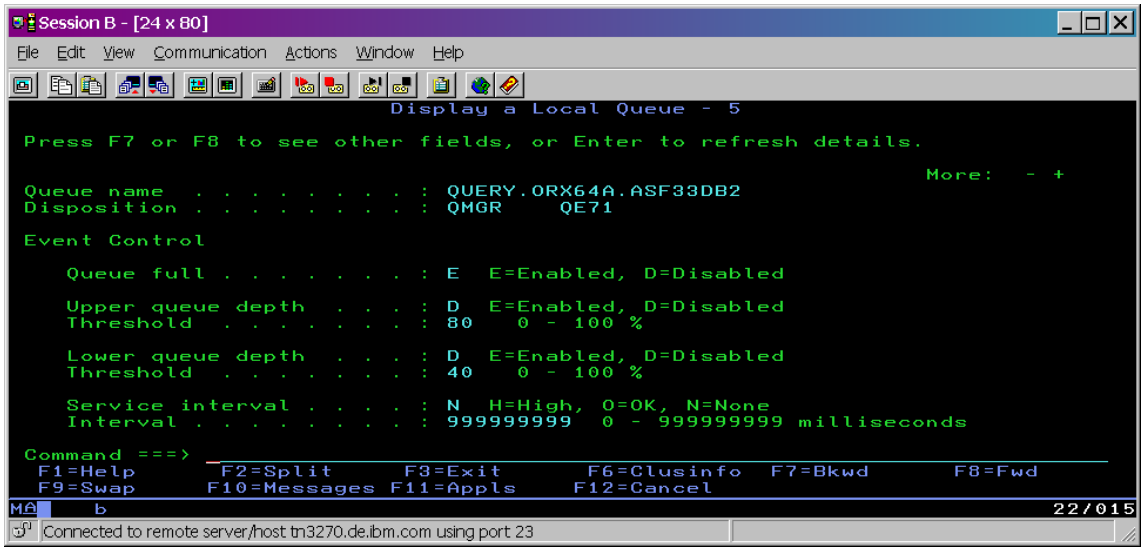

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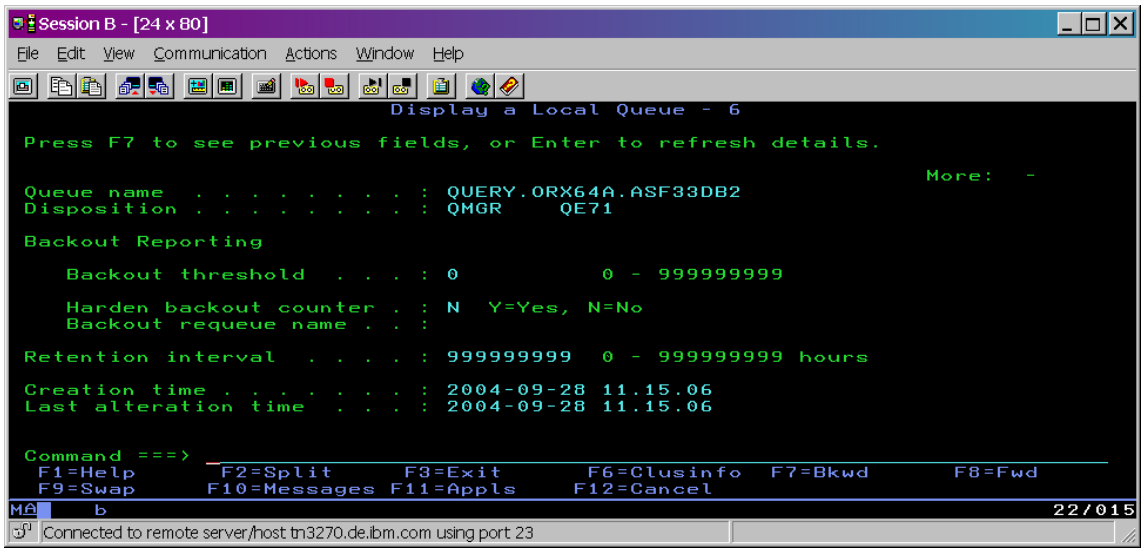
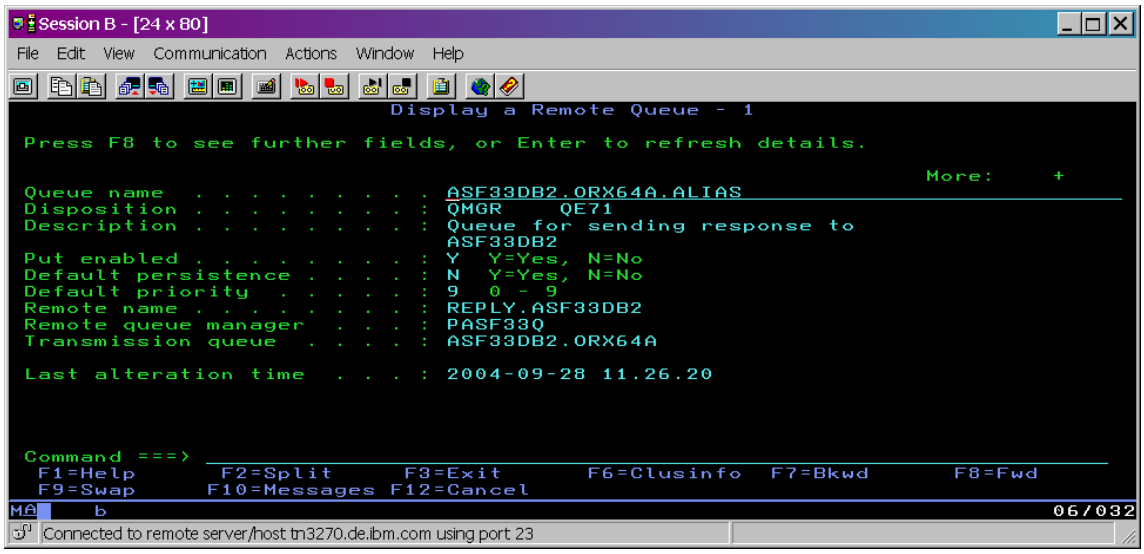


Press F3 to finish.

2.2 Define a Remote Queue (to AIX)



The remote name must match the queue name defined on AIX and the name of the remote queue manager must match name of the AIX queue manager. The name of the transmission queue must match the name of the remote queue manager. If this is not the case, there must exist a transmission queue with the name of the remote queue manager (PASF33Q).

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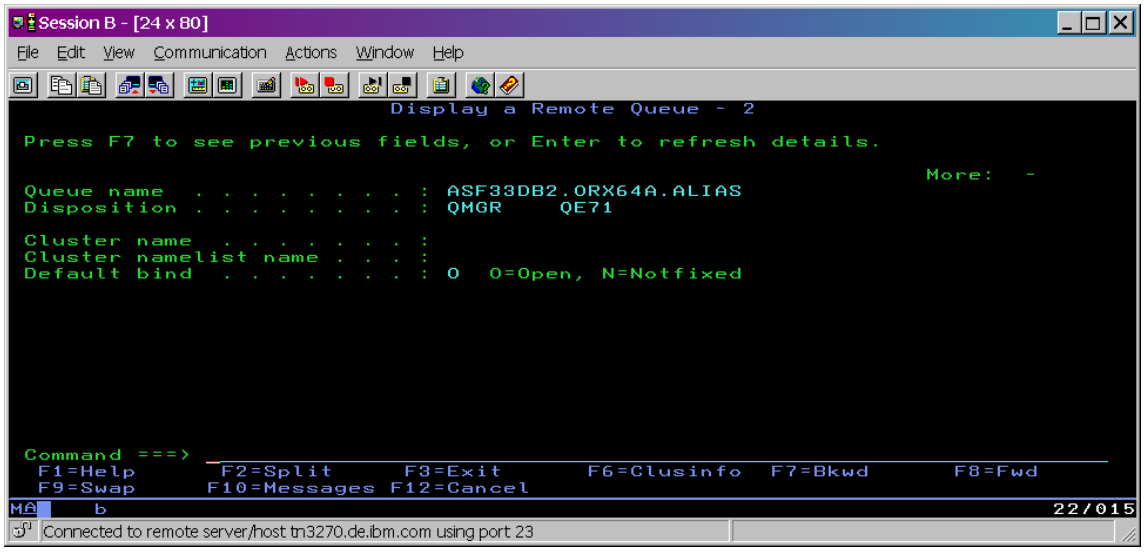
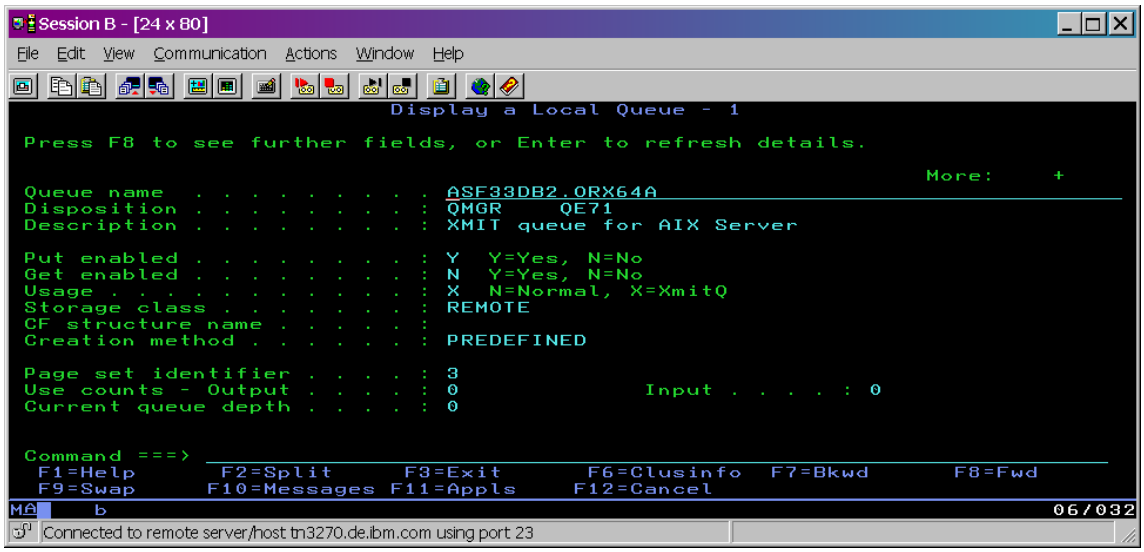


Press F3 to finish.

2.3 Define an Xmit Queue



If there is more than one sender channel (systems), a separate xmit queue must exist for each channel. The name of one xmit queue must match the name of the AIX queue manager (PASF33Q) or the remote queue name (to AIX) and the queue manager name must be specified in the DocNetworkConfiguration.xml under AIX (parameters host reply queue and host queue manager).

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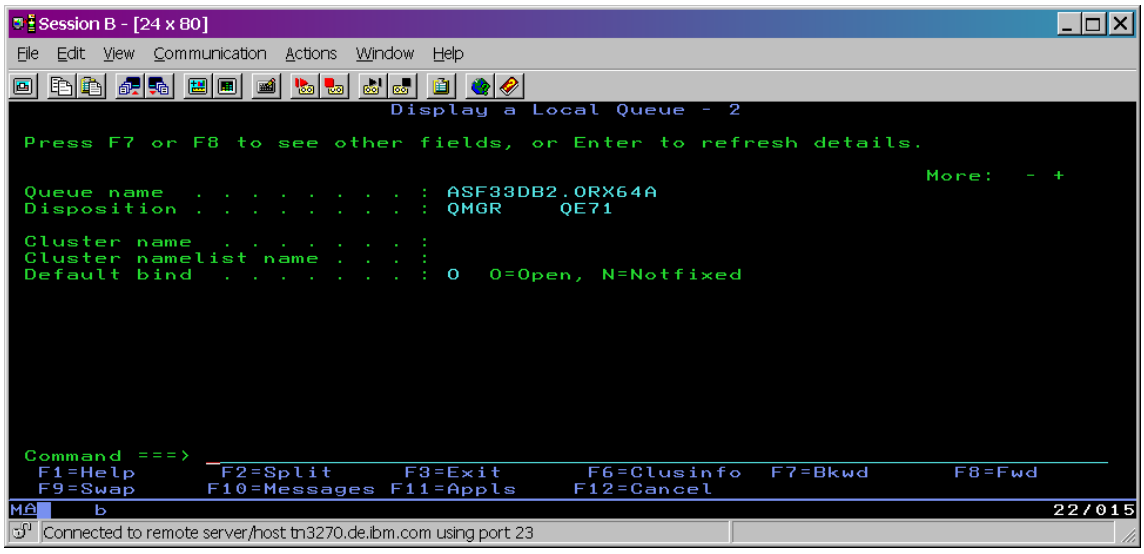

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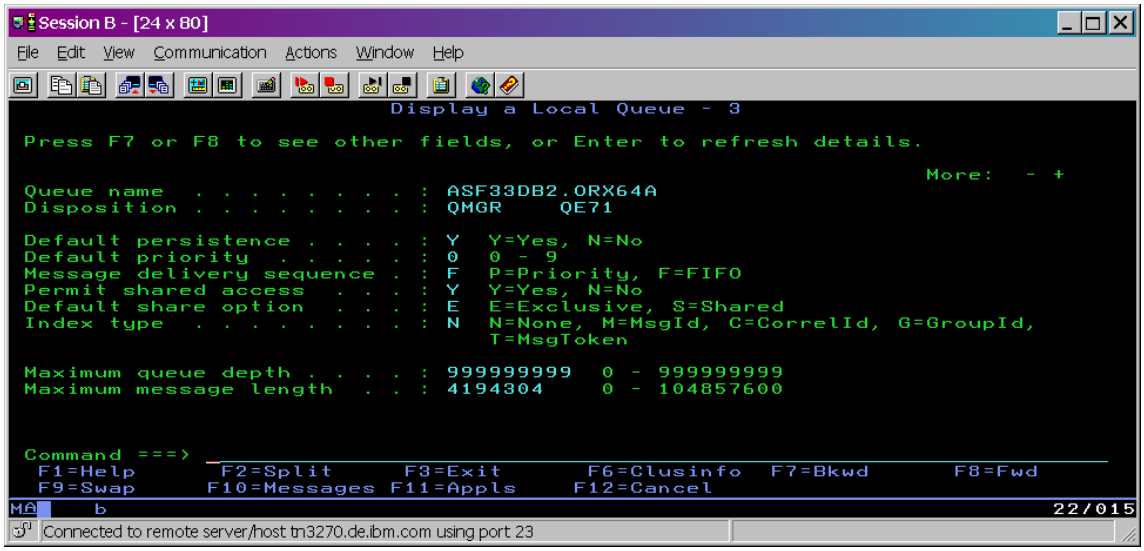

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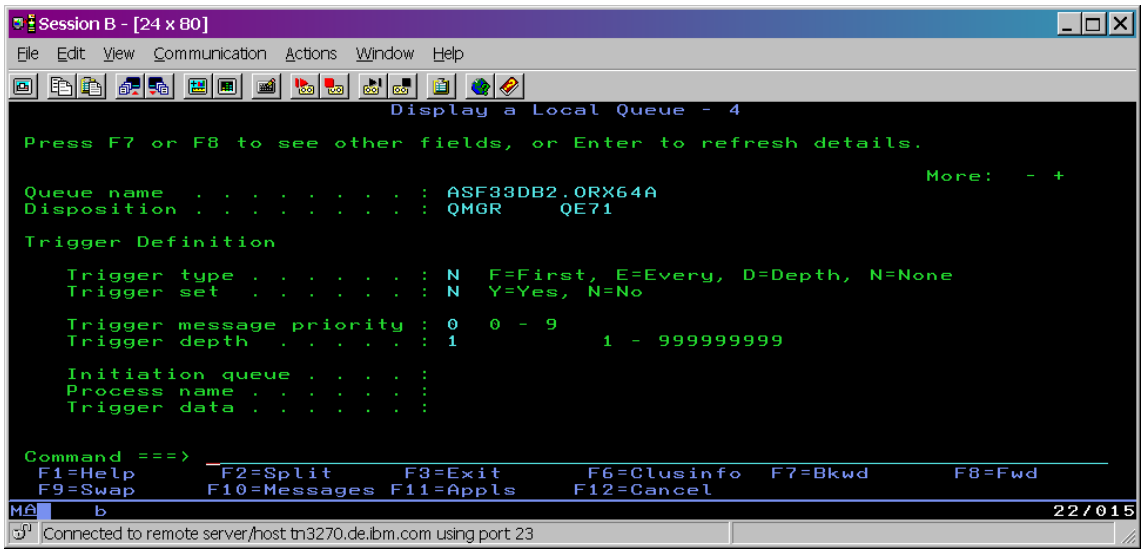

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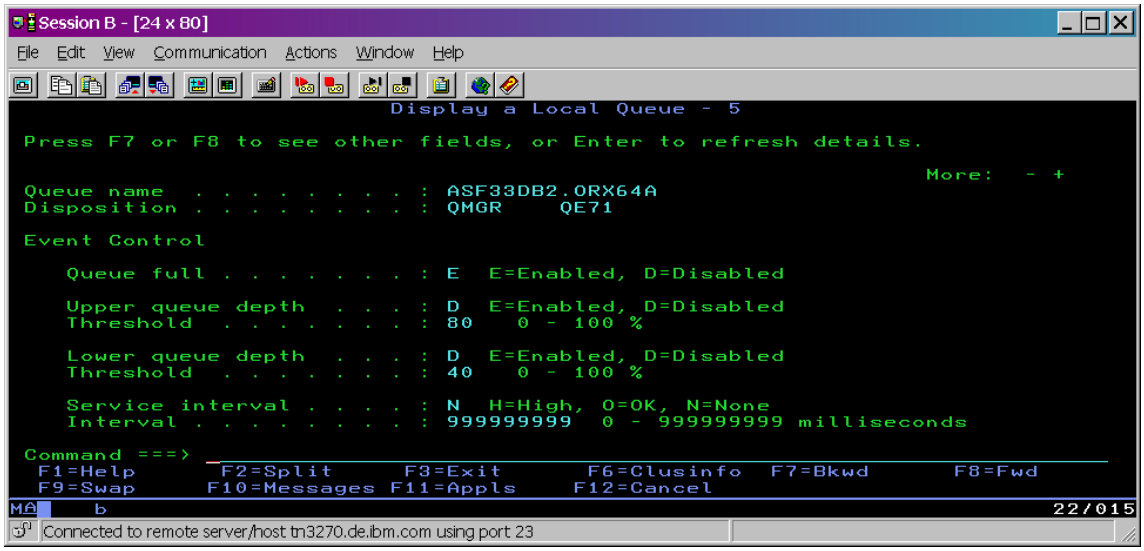

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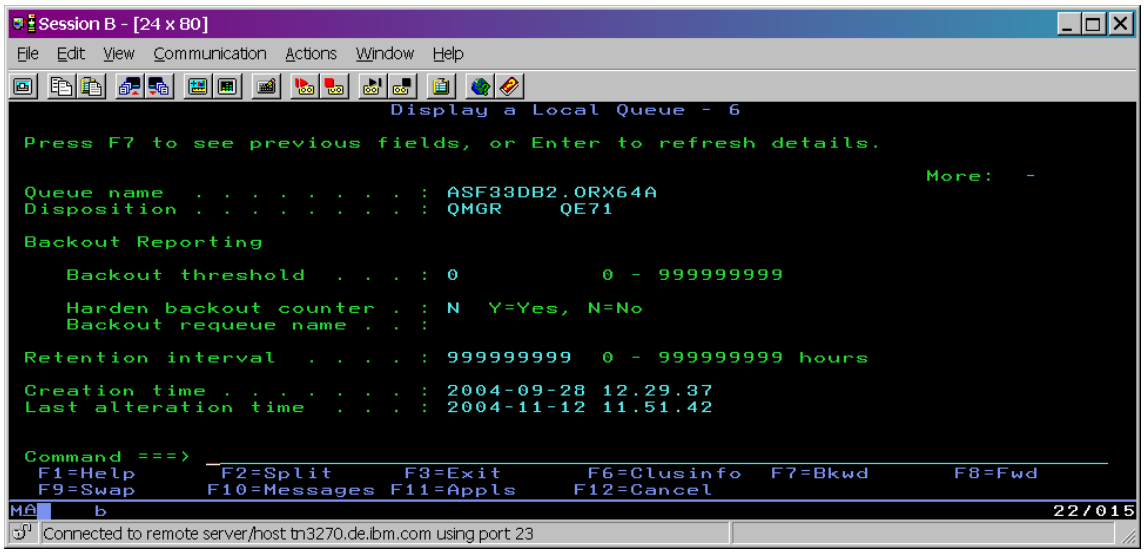
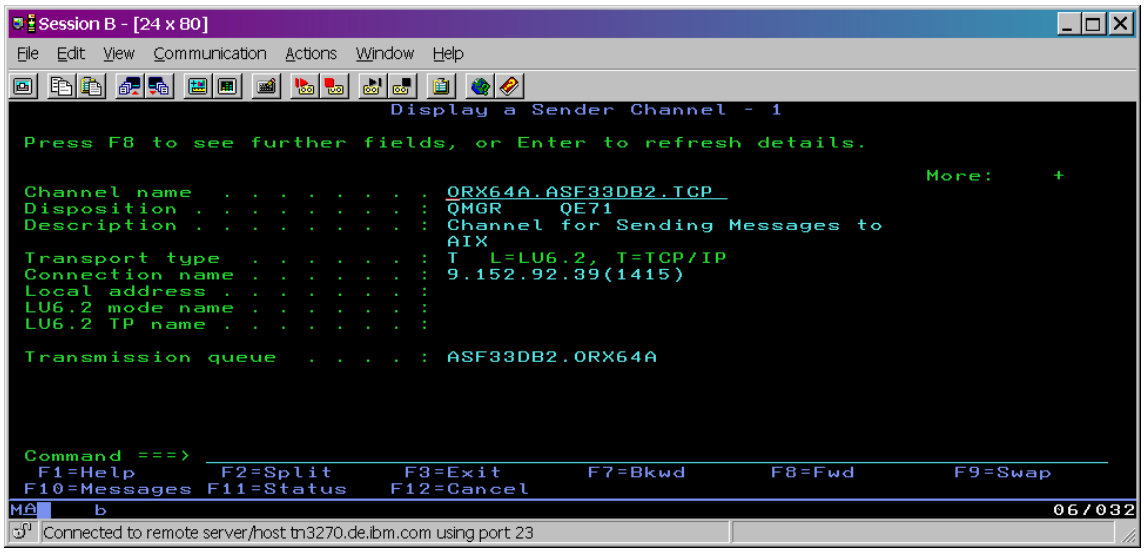


Press F3 to finish.

2.4 Define a Sender Channel



The sender channel name must match the receiver channel name in AIX. The connection name is the TCP/IP name of the AIX server plus the AIX port on which the AIX queue manager (PASF33Q) is listening.
The transmission queue name is the same as described in “Define an Xmit Queue“.

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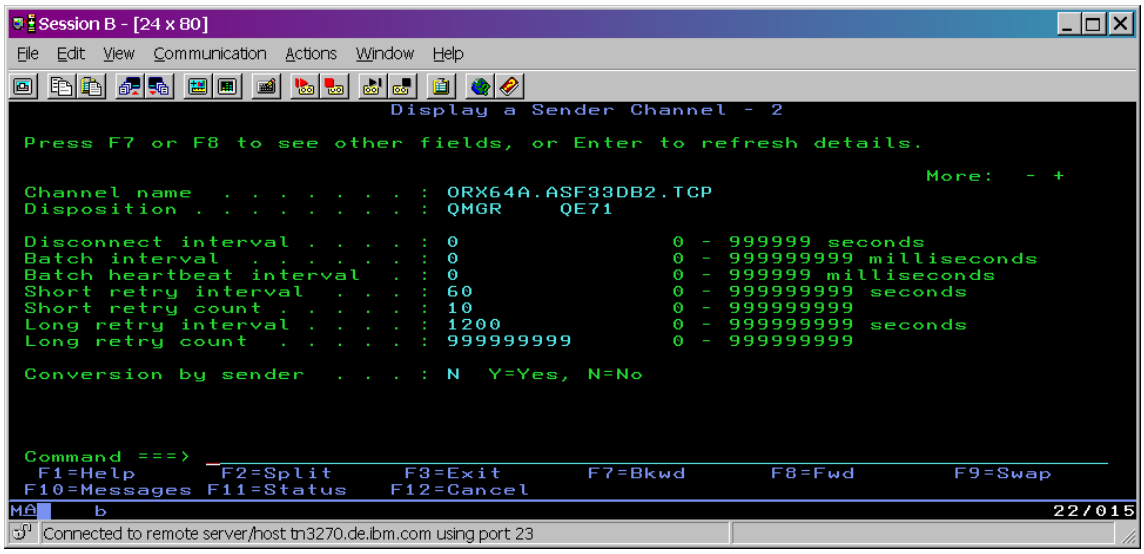

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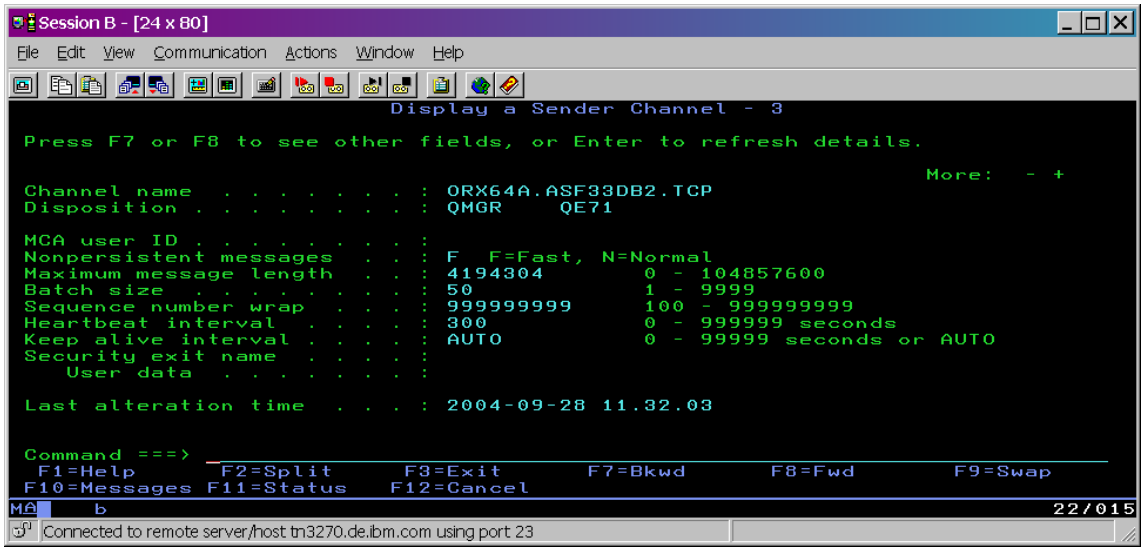
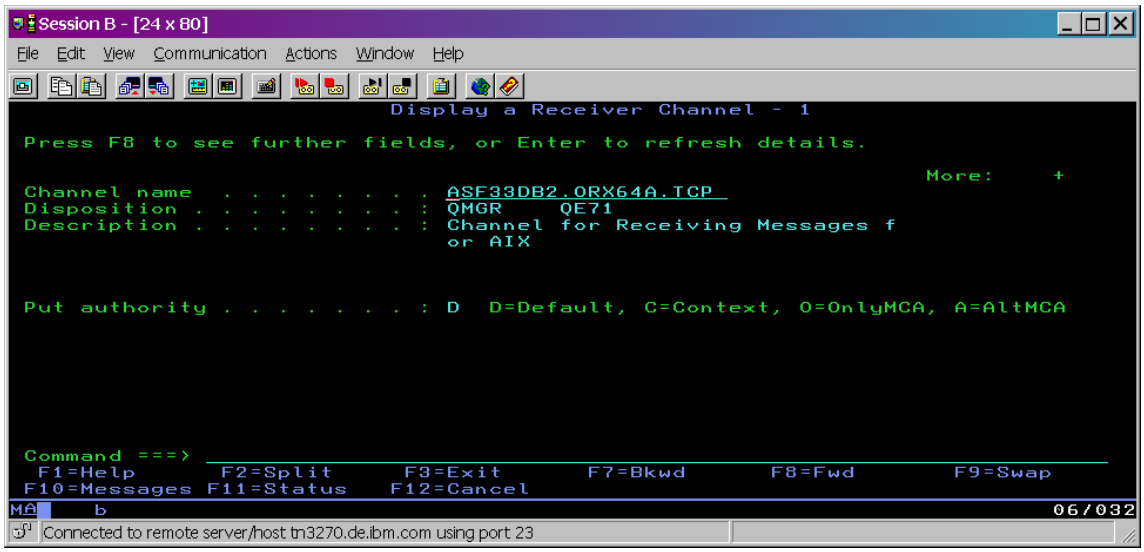


Press F3 to finish.

2.5 Define a Receiver Channel



The receiver channel name must match the name of the sender channel in AIX.

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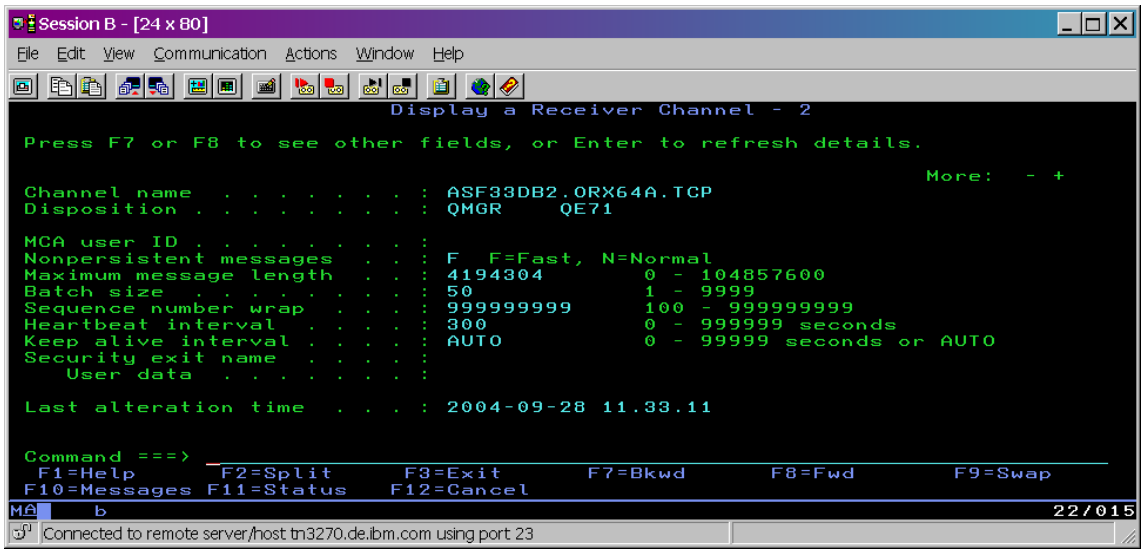

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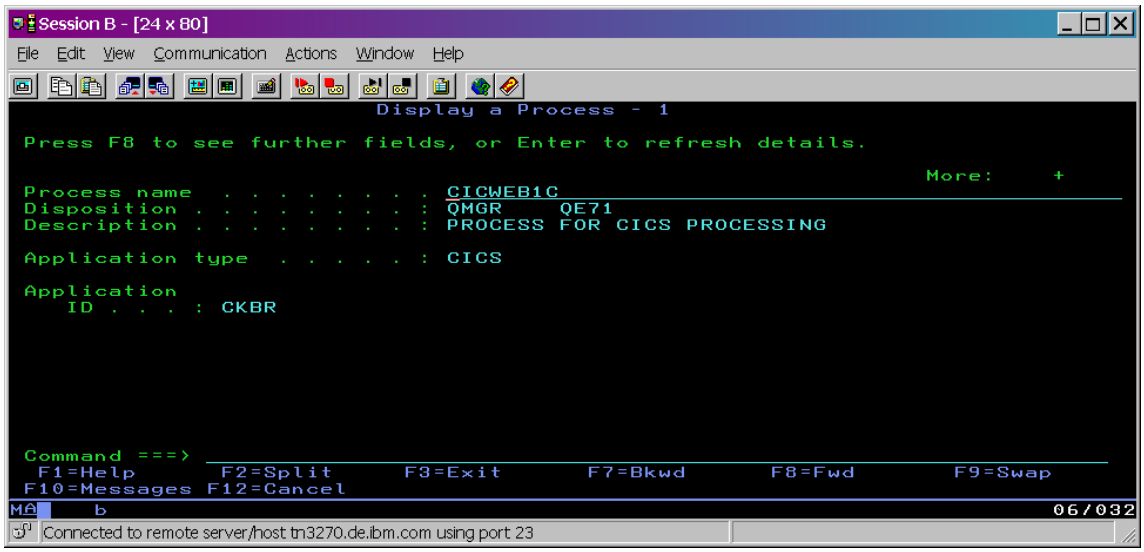
2.6 Define a Process



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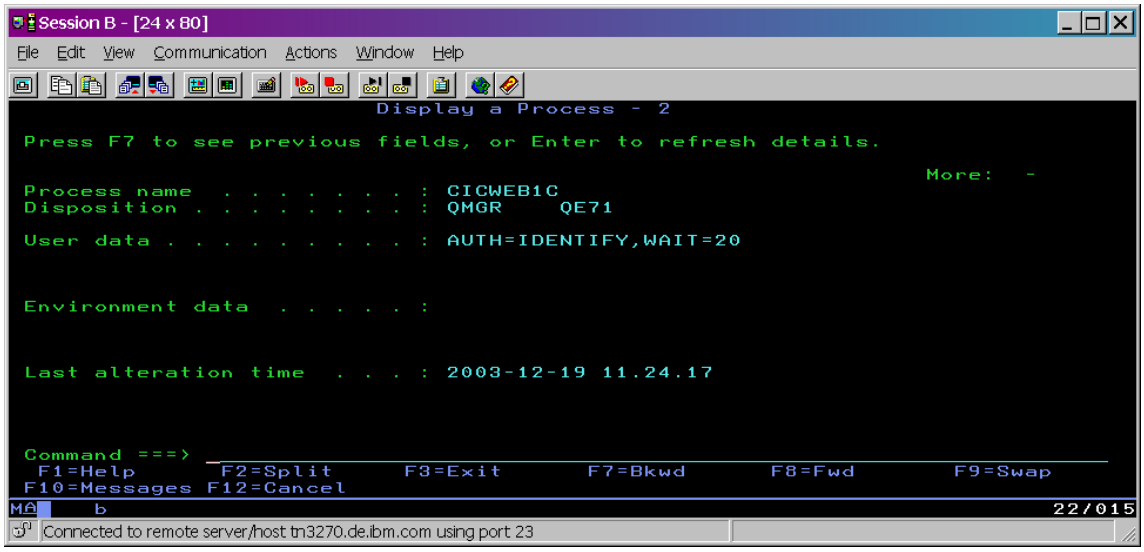

Press F3 to finish.

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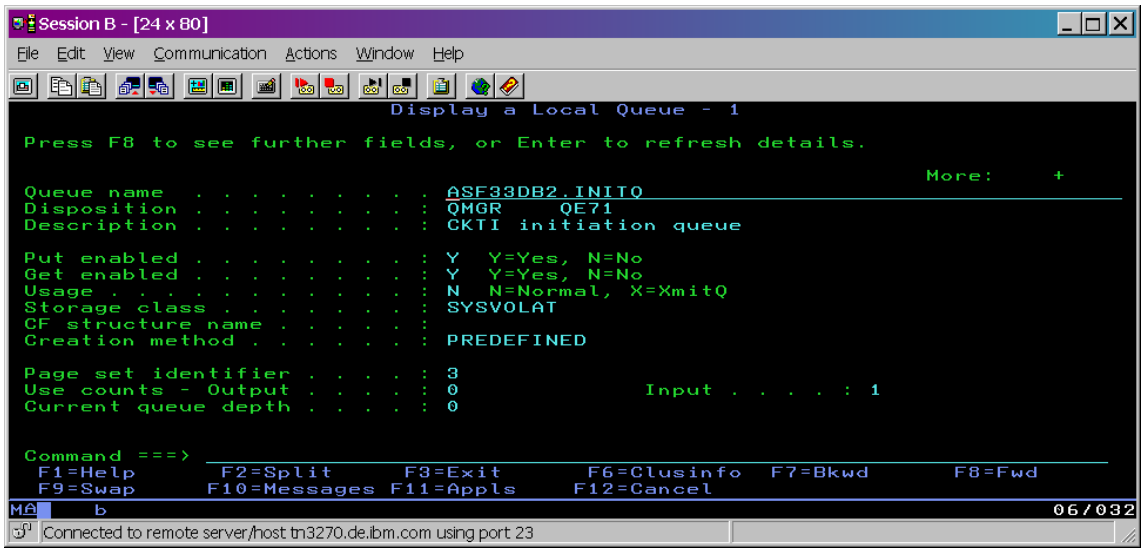
2.7 Define an Initiation Queue



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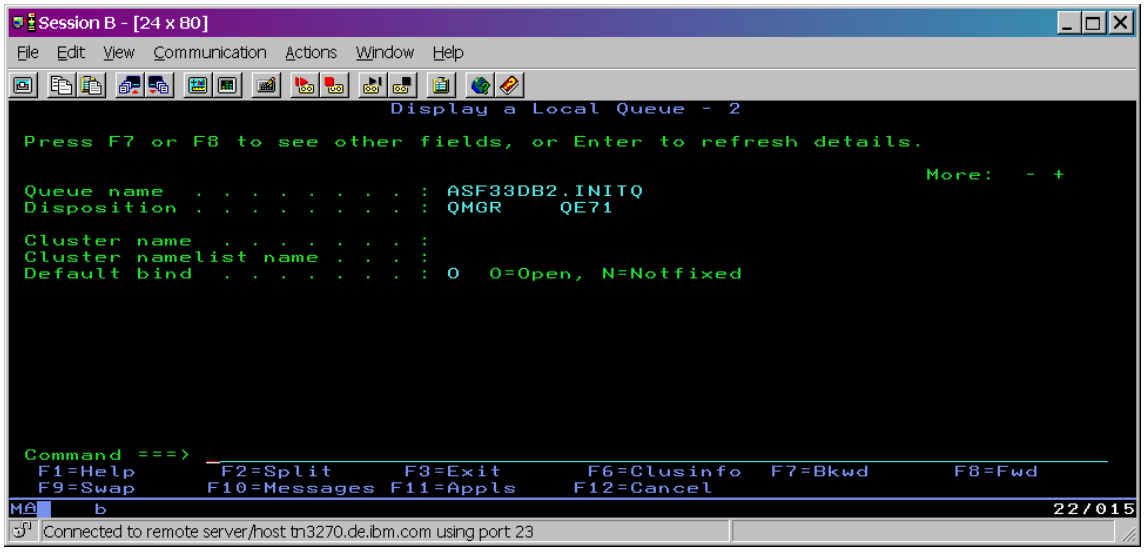

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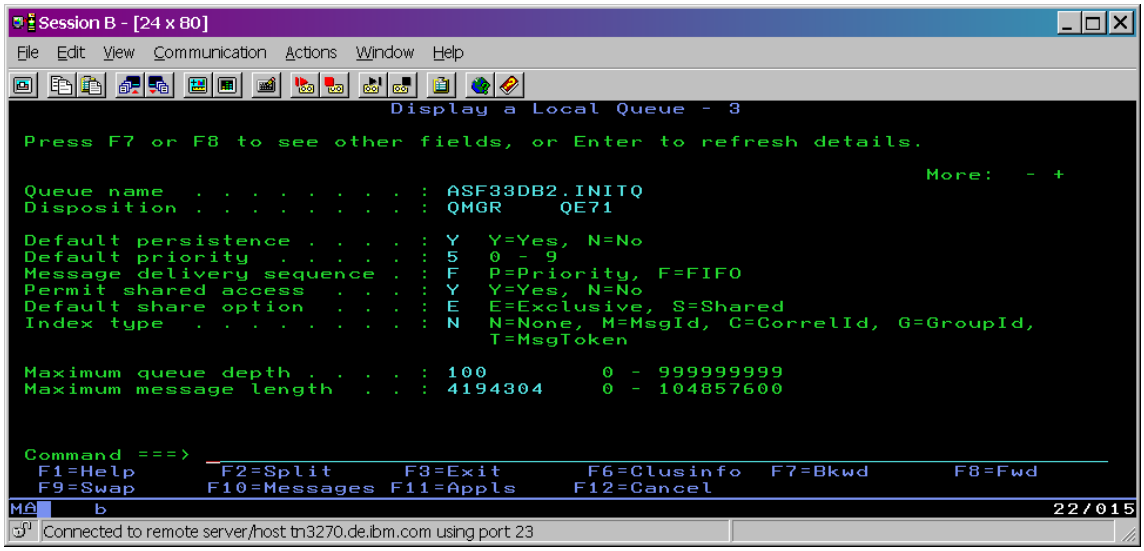

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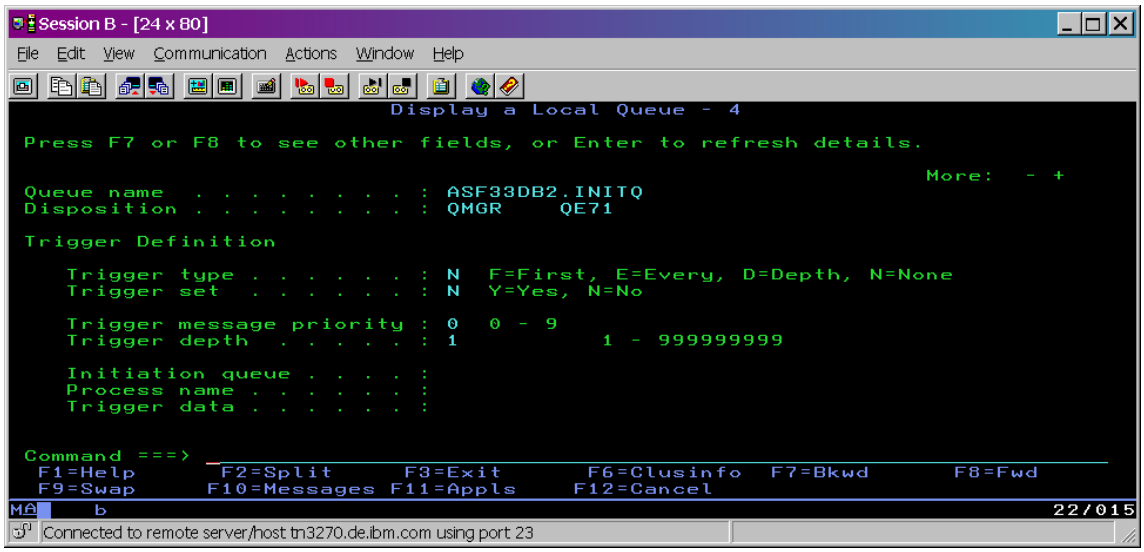

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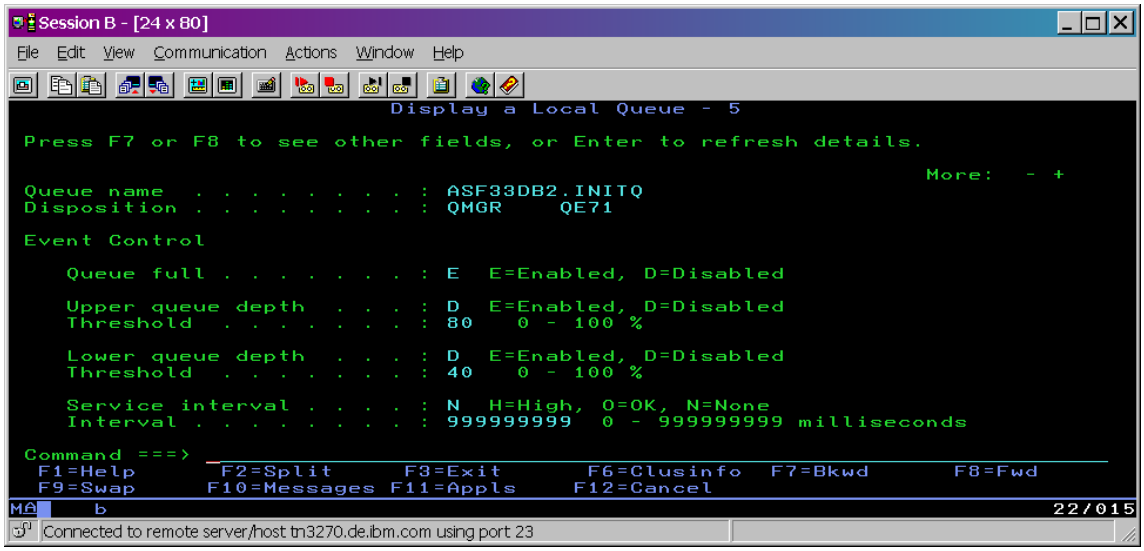

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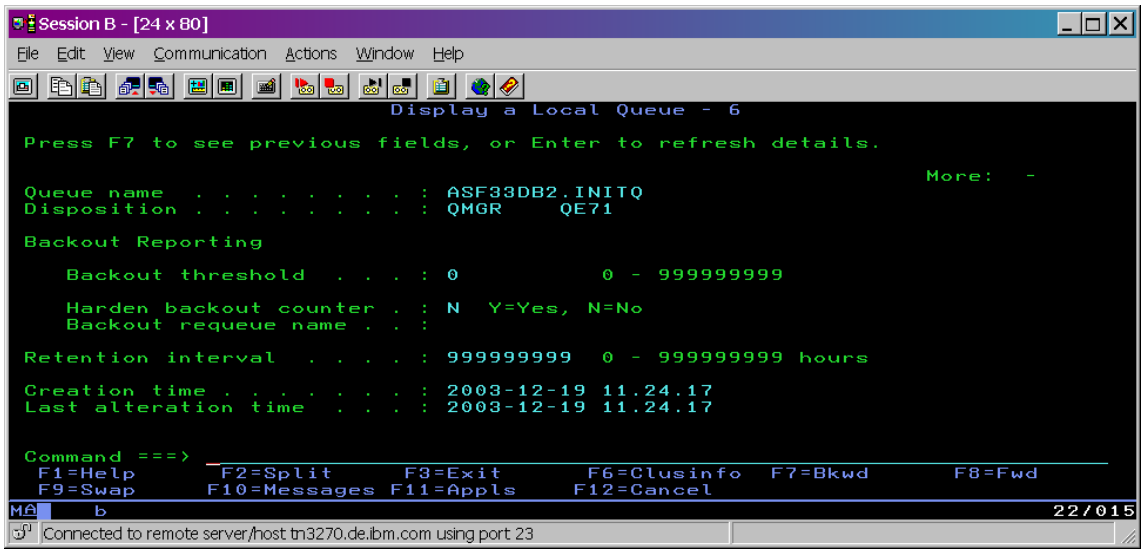

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3 CICS Definitions

3.1 The CICS Adapter (PLTPI program)

The CICS adapter must be installed and operational. For more information refer to „WebSphere MQ for z/OS System Setup Guide“ SC34-6052 and „WebSphere MQ for z/OS System Administration Guide“ SC34-6053. A CICS connection is started from a PLTPI program as follows:

```
      PRINT GEN
*
DFHPLTP1 DFHPLT TYPE=INITIAL,SUFFIX=P1
      DFHPLT TYPE=ENTRY,PROGRAM=DFHDELIM
      DFHPLT TYPE=ENTRY,PROGRAM=CSQCCODF
      DFHPLT TYPE=FINAL
*
      END
```

To activate the PLTPI program and the CICS Adapter the following SIT parameters are used:

```
INITPARM=(CSQCPARM='SN=QE71,TN=002,IQ=ASF33DB2.INITQ')
MQCONN=YES
PLTPI=P1
```

With transaction CKQC the CICS Adapter Control program is invoked.

3.2 The CICS Bridge (Transaction CKBR)

The CICS Bridge must be installed and operational. For more information refer to „WebSphere MQ for z/OS System Setup Guide“ SC34-6052 and „WebSphere MQ for z/OS System Administration Guide“ SC34-6053.

3.3 MQ and CICS Bridge

The CICS Bridge is started automatically during the first request via the CICS request queue (for example QUERY.ORX64A.ASF33DB2).

The request queue must have the following trigger definition:

```
Trigger Type      = F                    (first)
Initiation Queue  = ASF33DB2.INITQ       (CICS startup:
                                          INITPARM=(CSQCPARM='SN
                                          =QE71,TN=002,IQ=ASF33DB
                                          2.INITQ')
Process name      = CICWEB1C
```

The process CICWEB1C must have the following parameters:

```
Application ID    = CKBR
User data         = AUTH=IDENTIFY,WAIT=20
```

Note: CKBR can be started from a CICS terminal by entering the command

```
CKBR Q=QUERY.ORX64A.ASF33DB2,AUTH=IDENTIFY,WAIT=20
```

The terminal will be locked.

4 WebSphere Application Server V5.1 Settings

Refer to document “Installation on AIX Server using WebSphere Application Server V5.1, Server-to-Host connection using WebSphere MQ “.

5 Security Considerations

User Id and password as specified using the DocNetworkConfigServlet are passed to the CICS Bridge (user Id within the MQMD section and password within the CIH CICS Information Header). Depending on the CICS Bridge settings RACF is called to verify the user Id/password (AUTH keyword for transaction CKBR).

6 Problem Determination

For problem determination a server and a host trace have to be provided. Under CICS transaction CEDX can be used to debug problems:

1. Server trace on AIX (can be enabled in DocConfiguration.xml)
2. Host trace
3. CEDX CKBP (CICS Bridge Transaction)

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