Periodically delete or archive older IBM MQ FDC files

https://www.ibm.com/support/pages/node/6959333

Date last updated: 18-Mar-2023

Angel Rivera
IBM MQ Support
https://www.ibm.com/products/mq/support
Find all the support you need for IBM MQ

+++ QUESTIONS +++

- Are older FDC files useful for problem determination with IBM MQ?
- If not, what would be considered for an FDC to be old and candidate to be deleted and/or archived?
- How are these old files identified?

+++ SUMMARY +++

A general recommendation from IBM MQ Support is to delete and/or archive those FDC files that are older than:

    90 days

+ Linux / AIX

To list the files that are older than 90 days and show the dates.

$ **cd /var/mqm/errors**

Run in one single line:
$ **find . -maxdepth 1 -type f -name "*.FDC" -mtime +90 -print | xargs /bin/ls -l --time-style=+%Y/%m/%d**

+ Windows

Run in one single line the following command to list files that are older than 90 days and show the dates.

forfiles /P "C:\ProgramData\IBM\MQ\errors" /M *.FDC /D -90 /C "cmd /c echo @path @fdate" > C:\temp\test.txt

+++ DETAILS +++

In many instances when IBM MQ encounters an unexpected situation, an FFST/FDC file with an extension of .FDC is generated in the general directory for errors:

Linux and AIX:
      /var/mqm/errors

Windows:
      C:\ProgramData\IBM\MQ\errors

These files are intended to assist IBM MQ Administrators and/or IBM MQ Support during troubleshooting activities.

These files are not removed by the IBM MQ queue manager or other IBM MQ components.

This means that these files will accumulate over time.
In addition, the older the FDC file was generated, the less relevant will be for troubleshooting.

For example, an FDC file that was generated 3 years ago, will not provide any useful information for troubleshooting a problem that was reported yesterday.
Therefore, there is no value added in keeping these very old FDC files in the disk and they can be deleted.

In addition, when using the MQ tool "runmqras" the ENTIRE contents of the directory "errors" is added into the zip file and if there are hundreds of very old and very large FDC files, then these not-useful files will also be included, making the resulting zip file extremely large, and then these FDCs will add a lot of "noise" to the investigation.

On the other hand, if the FDC files are deleted daily, then an FDC that was generated two days ago may contain important information for the troubleshooting activity and if it is missing, then the troubleshooting activity is impaired.

What would be a recommended age for FDC files to be kept, before deleting them?
A general recommendation from IBM MQ Support is:
      90 days

That is, those FDC files that are older than 90 days could be deleted or archived.

However, this is only a guideline and your team may decide to keep FDC files for longer periods of time such as 120 or 180 days.

OK. So far, so good.

Very likely that by now you may have these questions:

a) In my Operating System, how do I identify those FDC files that are older than 90 days?

b) What kind of automation could be used to automatically run scripts to check for these old FDC files?

The rest of this document will address them.

++ Caveat

But before we continue ...

We are providing in this document the commands on how to identify and list those older files, and you could copy the commands from the PDF file for this document, and paste them into your terminal.

However, we are not providing the exact commands for deleting the files, because we are afraid that if you are in a hurry, you could copy the commands and paste them without doing a proper check and making typos, and then you may delete files that did not need to be deleted!

Thus, dear reader, we are letting you take the decision to actually enter and run the delete commands.

++ Section A: Identifying FDC files that are older than 90 days.

+ Linux / AIX

a) To list the files that are older than 90 and list the dates.
Use -maxdepth 1 to exclude subdirectories.

$ find . -maxdepth 1 -type f -name "*.FDC" -mtime +90 -print | xargs /bin/ls -l --time-style=+%Y/%m/%d

To delete, replace in xargs the command "ls" for "rm" or "rm -f"

b) The following forum discussion was very helpful.

https://stackoverflow.com/questions/34021732/list-all-files-older-than-x-days-only-in-current-directory
List all files older than x days only in current directory

c) The following command always shows the year (by default, within 6 months, the year is not show by "ls -l" which could cause confusion)

mqm@riggioni1.fyre.ibm.com: /var/mqm/errors
$) **ls -l --time-style=+%Y/%m/%d**
-rw-r----- 1 mqm mqm 69056 2023/02/25 AMQ59316.0.FDC
-rw-rw-r-- 1 mqm mqm 379941 2023/02/25 AMQERR01.LOG
-rw-rw-r-- 1 mqm mqm   0 2022/06/09 AMQERR02.LOG

d) To show the time stamps,
mqm@riggioni1.fyre.ibm.com: /var/mqm/errors
$ **ls -l --full-time**
-rw-r----- 1 mqm mqm 233909 2022-12-27 17:06:51.179262123 -0800 AMQ121760.0.FDC
-rw-r----- 1 mqm mqm 78326 2022-12-27 17:06:36.898188633 -0800 AMQ121769.0.FDC

+ Windows

a) Run in one single line

forfiles /P "C:\ProgramData\IBM\MQ\errors" /M *.FDC /D -90 /C "cmd /c echo @path @fdate" > C:\temp\test.txt

Where:
/P	pathname	Path to the folder with FDC files
/M	searchmask	Searching for list of files that meet these settings like *.FDC
/D	date	Selects files modified within the range. For this example, anything older than 90 days from the date it is run.
/C	Command	Executes a command to run for each file found. These need to be in Double Quotes to run properly. The ones here are [echo] full path of the file [@path and the date the file was last modified [@fdate]
>	Redirect to	Used to redirect output from the screen to someplace else, in this case a file called test.txt in C:\temp

Example of entries in the output file:
"C:\ProgramData\IBM\MQ\errors\AMQ13072.0.FDC" 6/23/2022
"C:\ProgramData\IBM\MQ\errors\AMQ15580.0.FDC" 8/17/2022
"C:\ProgramData\IBM\MQ\errors\AMQ16904.0.FDC" 6/9/2022

b) Relate article:
https://interworks.com/blog/rclapp/2011/10/25/finding-and-removing-files-older-x-days/
Finding and removing files older than X days
Richard Clapp//October 25, 2011

c) Reference:
https://learn.microsoft.com/en-us/windows-server/administration/windows-commands/forfiles

++ Section B: Using a cron job (Linux, AIX) and Task Scheduler (Windows) to periodically run the scripts to identify (and delete) the old FDC files

Even though the articles included here do not directly address the task for deleting the files, they provide, however, the detailed steps for creating a cron job or a Task in the Scheduler.

+ Linux / AIX

See related article on how to create a cron job:

https://www.ibm.com/support/pages/node/87035
Cron job for clearing all messages from a queue in an MQ queue manager

+ Windows

See related article on how to create a Task in the Task Scheduler:

https://www.ibm.com/support/pages/node/6446755
Using Task Scheduler in Windows to add a task to delete messages from an MQ queue at regular intervals

++ end +++