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ENABLING THE ABILITY TO RETRIEVE THE CANCELLED JOB FOR A DEFINED PERIOD

HP INC

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Enabling the ability to retrieve the cancelled job for a defined period

Abstract

A print queue is a list of print jobs held in a reserved memory area. It maintains the status of all active and pending jobs. A print queue gives users the management capabilities to facilitate control of print queue operations like pausing, resuming or cancelling jobs. Some print queues allow users to prioritize print jobs and change the order of the queue.

Jobs in queue can be cancelled by the user at any point of time either before job processing starts or while job is being processed, etc. Once the job gets cancelled, the cancelled job cannot be retrieved and added back to the queue. User will have to trigger the same job again to get the job being completed.

In general, once user triggers a print job to the printer and either by mistake user cancels the print job instead of canceling a different job or decides that the user no more need that job to be completed at that point of time and hence cancels the job.

Why should a cancelled job be retrieved? In the above said situations, if user wishes to complete that cancelled job, then the user must trigger the job again, which is a rework for them. To handle such situations and to provide good user experience the current idea proposes to store the cancelled jobs for a defined threshold time and dispose them automatically post threshold time. During this time, user will be able to retrieve the cancelled job and add them back to the print queue. For good user experience, usability & security, job retrieval option will be provided only to the users who owns the cancelled job.

Problems solved

This paper intends to solve the following problems:

1. Automatically save cancelled jobs for a defined threshold time
2. Reduces Job failure ratio
3. Improves user experience by allowing the user to retrieve cancelled job
4. Automatically delete cancelled jobs post defined threshold time
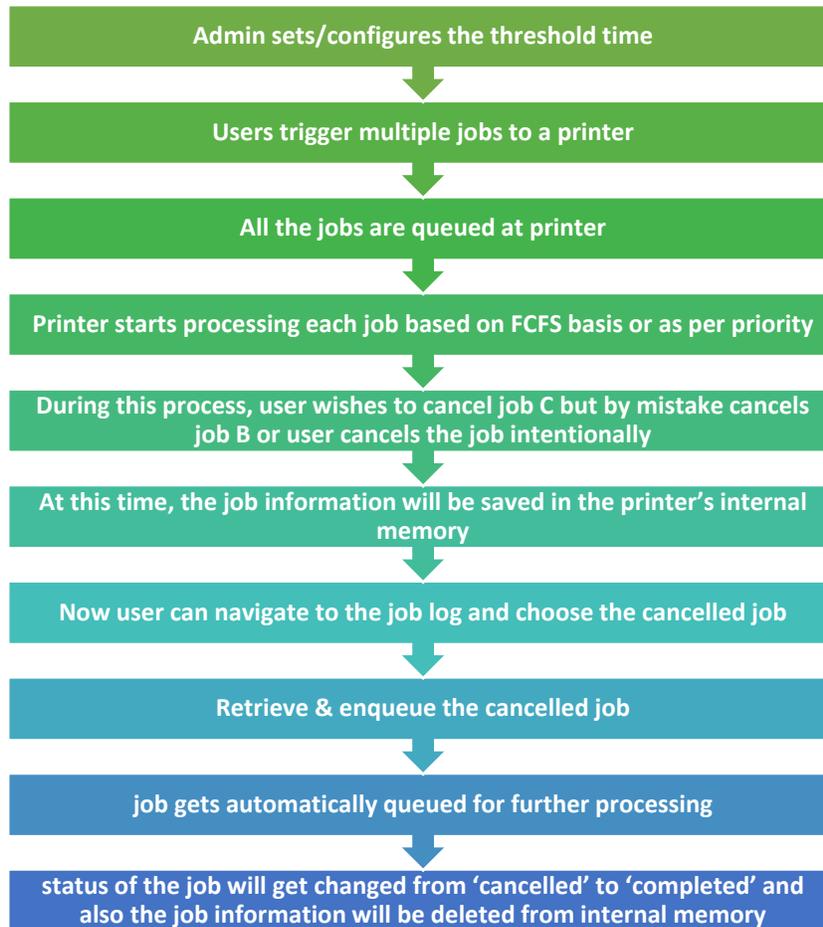
Prior Solutions

Currently no solution is available that helps the user to retrieve the cancelled job apart from making user to re-trigger the job again.

Description of the solution

This paper proposes to provide a solution to the above problem. The solution helps the user to retrieve the cancelled job within a defined threshold time and add them back to the print queue wherein the jobs gets completed eventually instead of making the user to trigger the job again. Below is the flow that describes the proposed solution…

1) Admin sets/configures the threshold time for retrieving the cancelled job as 1 day.
2) Users trigger multiple jobs to a printer, let's say Job A, B, C.
3) All the jobs are queued at printer
4) Printer starts processing each job based on First Come First Serve basis/as per priority
5) During this process, user wishes to cancel job C but by mistake cancels job B or user cancels the job intentionally as his/her preference for the job got changed and wishes to print the same job at a later point of time
6) At this time, the job information will be saved in the printer's internal memory for a configured/defined threshold of time
7) Now user can navigate to the job log and choose the cancelled job
8) User will be provided with retrieve & enqueue the job to job queue for the cancelled job
9) Once the user chooses this option, the job gets automatically queued for further processing
10) Once the job gets processed, the status of the job will get changed from 'cancelled' to 'completed' and the job information will be deleted from internal memory that was saved when job got cancelled
11) Once the job status gets changed to 'completed', user will not have any option to retrieve again as it got processed already

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│                Users trigger multiple jobs to a printer            │
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│                   All the jobs are queued at printer               │
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│    Printer starts processing each job based on FCFS basis or as    │
│                             per priority                           │
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│  During this process, user wishes to cancel job C but by mistake   │
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│   At this time, the job information will be saved in the printer's │
│                          internal memory                           │
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│    Now user can navigate to the job log and choose the cancelled   │
│                                job                                 │
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│                  Retrieve & enqueue the cancelled job              │
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│              job gets automatically queued for further processing  │
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│  status of the job will get changed from 'cancelled' to           │
│  'completed' and also the job information will be deleted from     │
│                        internal memory                             │
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It is very easy to implement this feature as the only part that needs to be implemented is to provide save & retrieve options for jobs that user cancels. Since, the changes are only on the firmware of the printer, there is no extra cost that is involved apart from the firmware implementation (apart from one-time effort).

Advantages

- Helps to reduce job failure ratio
- Helps to reduce the possibility of losing the cancelled jobs by mistake
- Easy to implement
- Very low cost apart from one-time Firmware implementation
- No additional or change in the hardware

Disclosed by Ashok Kopparthi, Shubhendu Singh and Gaurav Kumar, HP Inc.