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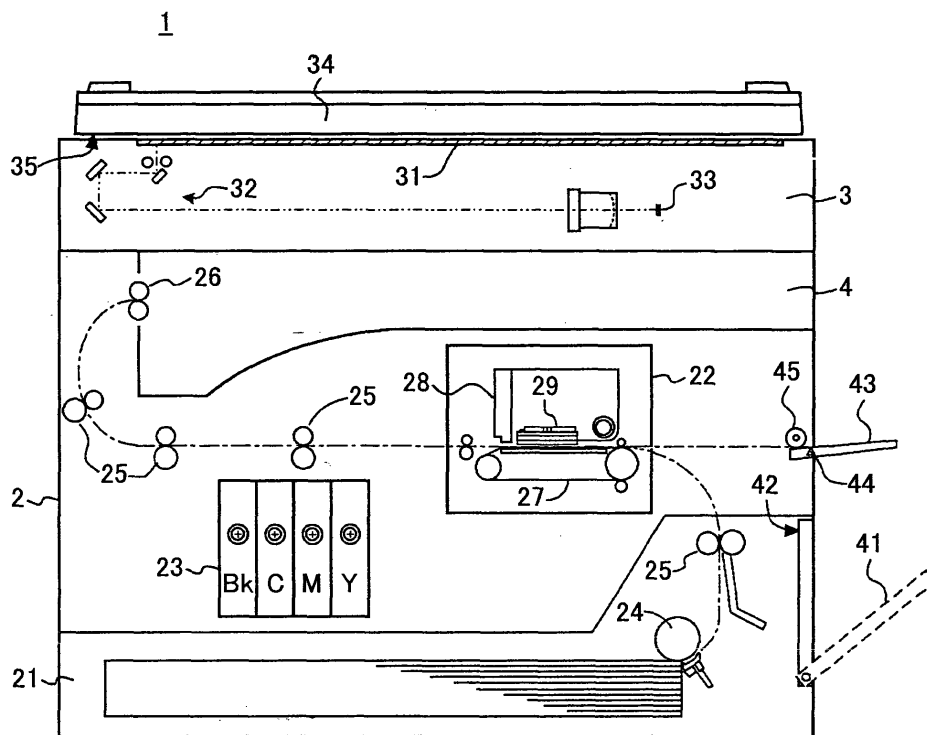
(71) Applicant: **Ricoh Company**
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(54) **Ink jet recording apparatus, controlling method for computer program and a computer readable storage medium**

(57) An ink jet recording apparatus (1) including an ink jet printer engine as an image forming part is characterized in that a printing preparation operation at a starting time of image forming by the ink jet engine and another preparation operation are processed in parallel.

terized in that a printing preparation operation at a starting time of image forming by the ink jet engine and another preparation operation are processed in parallel.

FIG.2





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 05 25 2683

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 788 883 A2 (SEIKO EPSON CORP [JP]) 13 August 1997 (1997-08-13) * column 17, line 36 - column 18, line 2; figures 16,17a-17c * * column 27, line 17 - line 58 * * column 36, line 17 - line 24; claim 6 * -----	1-14, 23-25	INV. B41J29/393
X	EP 0 905 965 A2 (XEROX CORP [US]) 31 March 1999 (1999-03-31) * paragraph [0024] * -----	1-14, 23-25	
A	US 5 072 235 A (SLOWIK JOHN H [US] ET AL) 10 December 1991 (1991-12-10) * abstract * * column 5, line 65 - column 6, line 14; figures 2,3 * -----	1-14, 23-25	
P,X	US 2004/252158 A1 (SHINDO TATSUYA [JP]) 16 December 2004 (2004-12-16) * paragraph [0050] - paragraph [0052]; figure 5 * -----	1-14, 23-25	
A	JP 11 138790 A (XEROX CORP) 25 May 1999 (1999-05-25) -----		TECHNICAL FIELDS SEARCHED (IPC) B41J
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 6 February 2007	Examiner Adam, Emmanuel
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-14, 23-25



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-14, 23-25

ink jet recording method and apparatus including an ink jet printer wherein a printing preparation operation at a starting time of image forming by the ink jet engine and another preparation operation are processed in parallel.

2. claims: 15-17

ink jet recording apparatus including manuscript reading means and manuscript set detection means.

3. claims: 18-20

ink jet recording apparatus including a cover for jam processing, a manual tray and a paper sensor for detecting the opening and closing of the manual tray.

4. claim: 21

ink jet recording apparatus including an energy-saving mode.

5. claim: 22

ink jet recording apparatus including a series process mode for processing the printing operations.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 25 2683

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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06-02-2007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0788883	A2	13-08-1997	DE 69620862 D1	29-05-2002
			DE 69620862 T2	21-11-2002
			US 5946008 A	31-08-1999

EP 0905965	A2	31-03-1999	JP 11138790 A	25-05-1999
			US 6016205 A	18-01-2000

US 5072235	A	10-12-1991	JP 3025055 B2	27-03-2000
			JP 4232753 A	21-08-1992

US 2004252158	A1	16-12-2004	JP 2004306428 A	04-11-2004

JP 11138790	A	25-05-1999	EP 0905965 A2	31-03-1999
			US 6016205 A	18-01-2000
