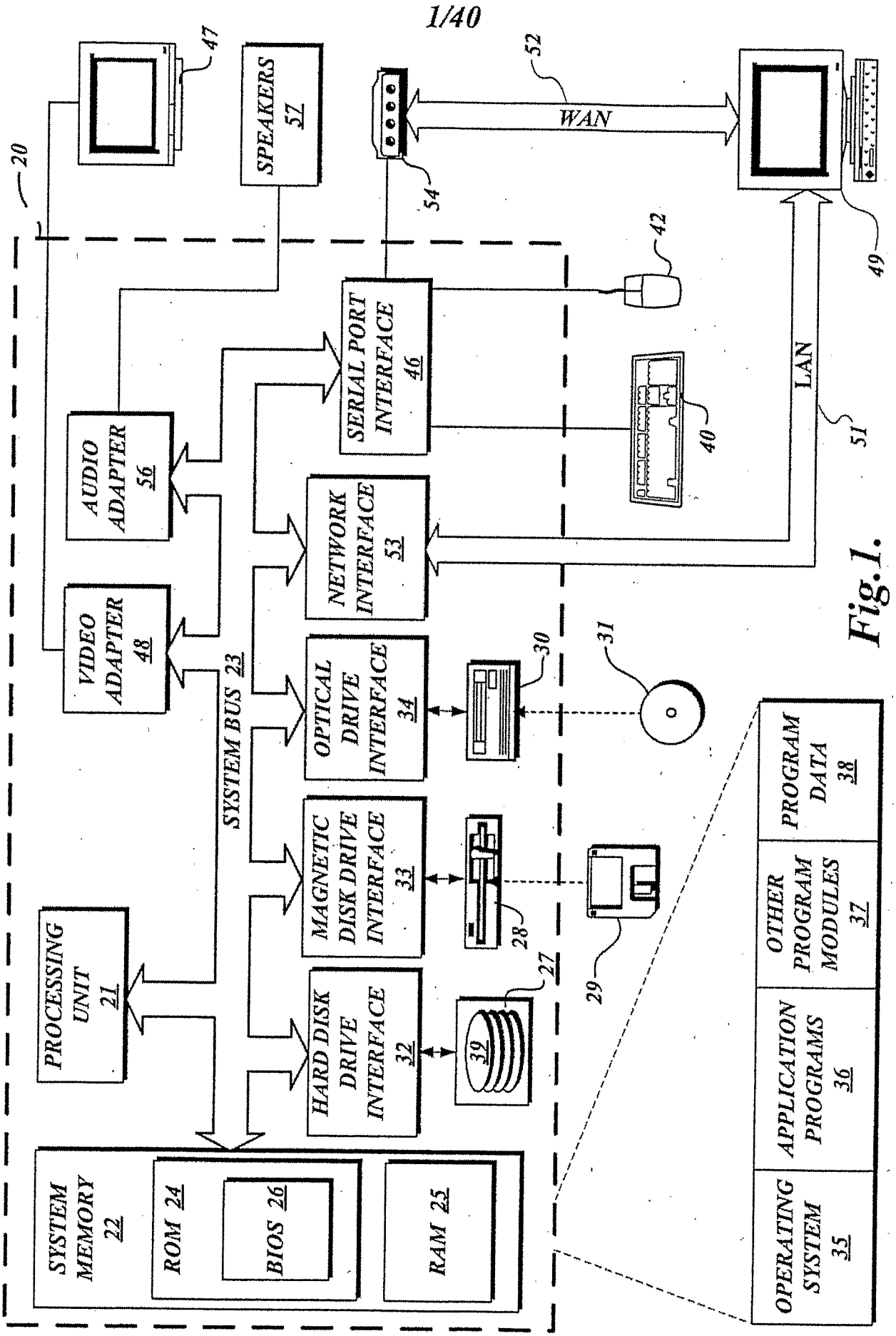

20
47
SPEAKERS 57
52
WAN
54
49
42
SERIAL PORT INTERFACE 46
AUDIO ADAPTER 56
40
LAN
51
NETWORK INTERFACE 53
VIDEO ADAPTER 48
SYSTEM BUS 23
OPTICAL DRIVE INTERFACE 34
30
31
MAGNETIC DISK DRIVE INTERFACE 33
28
29
PROCESSING UNIT 21
HARD DISK DRIVE INTERFACE 32
27
39
SYSTEM MEMORY 22
ROM 24
BIOS 26
RAM 25
OPERATING SYSTEM 35
APPLICATION PROGRAMS 36
OTHER PROGRAM MODULES 37
PROGRAM DATA 38

Fig. 1.

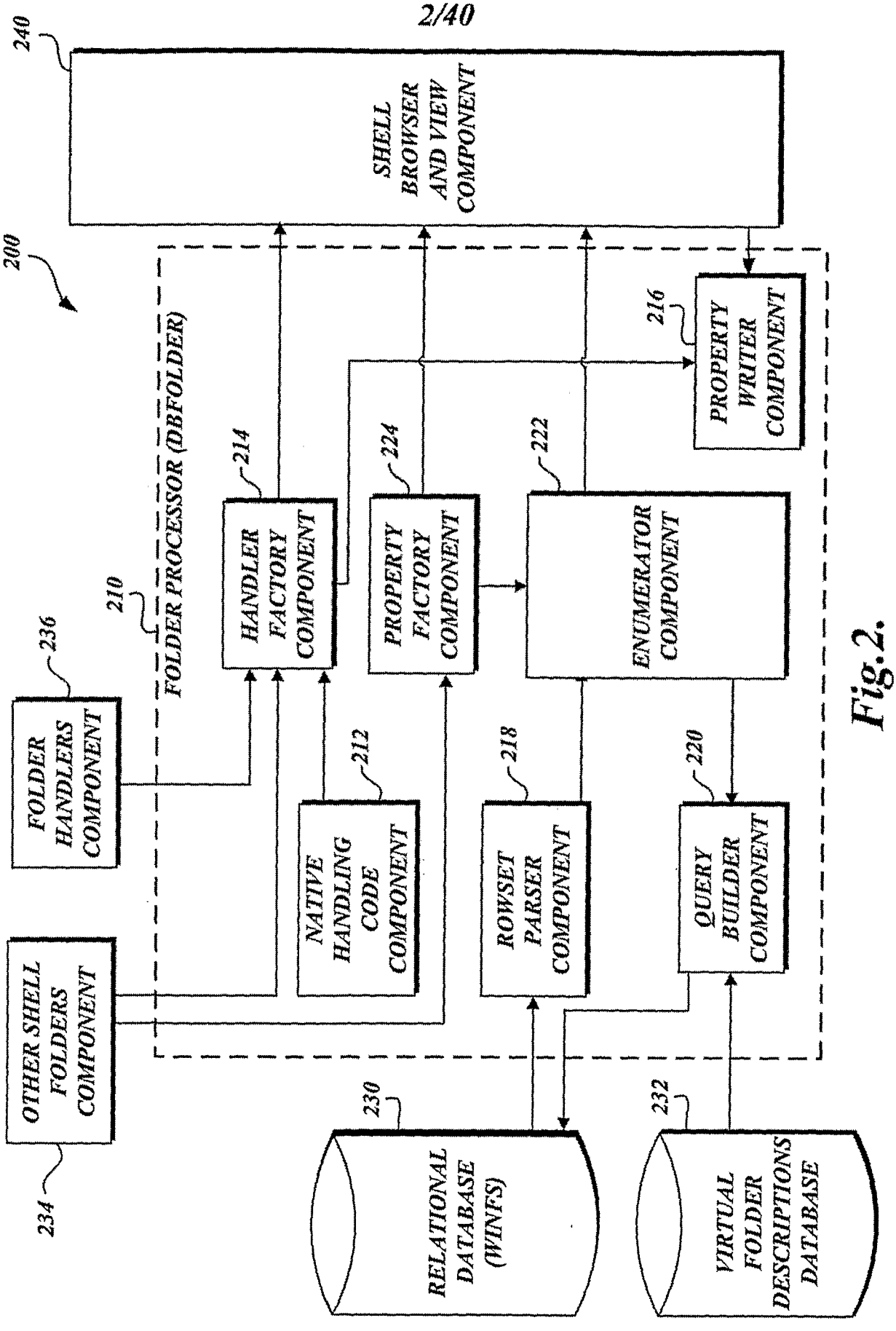

240
SHELL BROWSER AND VIEW COMPONENT
200
FOLDER PROCESSOR (DBFOLDER)
210
216
PROPERTY WRITER COMPONENT
214
HANDLER FACTORY COMPONENT
224
PROPERTY FACTORY COMPONENT
222
ENUMERATOR COMPONENT
236
FOLDER HANDLERS COMPONENT
212
NATIVE HANDLING CODE COMPONENT
218
ROWSET PARSER COMPONENT
220
QUERY BUILDER COMPONENT
OTHER SHELL FOLDERS COMPONENT
234
230
RELATIONAL DATABASE (WINFS)
232
VIRTUAL FOLDER DESCRIPTIONS DATABASE

Fig.2.

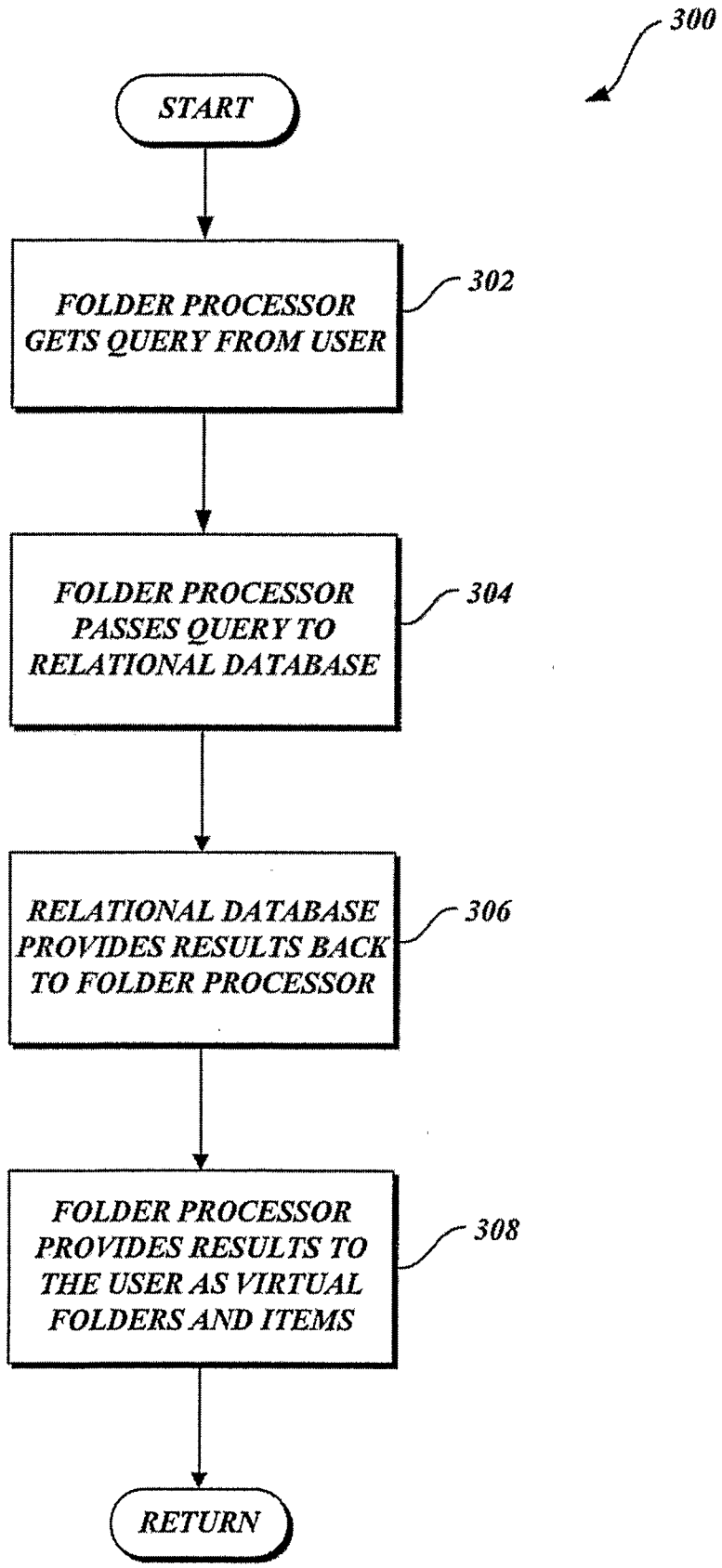

300
START
FOLDER PROCESSOR GETS QUERY FROM USER
302
FOLDER PROCESSOR PASSES QUERY TO RELATIONAL DATABASE
304
RELATIONAL DATABASE PROVIDES RESULTS BACK TO FOLDER PROCESSOR
306
FOLDER PROCESSOR PROVIDES RESULTS TO THE USER AS VIRTUAL FOLDERS AND ITEMS
308
RETURN

Fig.3.

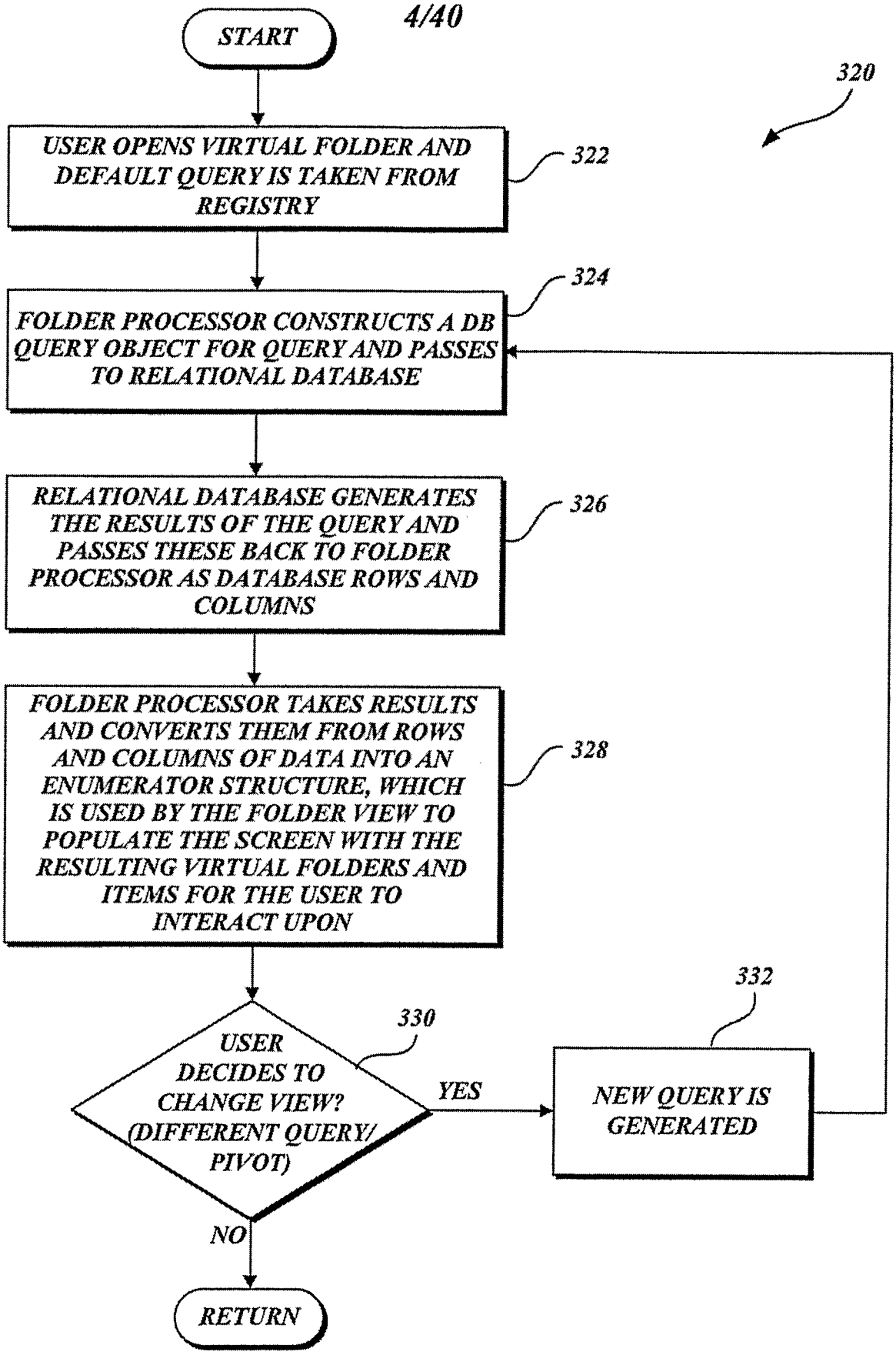

START
320
USER OPENS VIRTUAL FOLDER AND DEFAULT QUERY IS TAKEN FROM REGISTRY
322
FOLDER PROCESSOR CONSTRUCTS A DB QUERY OBJECT FOR QUERY AND PASSES TO RELATIONAL DATABASE
324
RELATIONAL DATABASE GENERATES THE RESULTS OF THE QUERY AND PASSES THESE BACK TO FOLDER PROCESSOR AS DATABASE ROWS AND COLUMNS
326
FOLDER PROCESSOR TAKES RESULTS AND CONVERTS THEM FROM ROWS AND COLUMNS OF DATA INTO AN ENUMERATOR STRUCTURE, WHICH IS USED BY THE FOLDER VIEW TO POPULATE THE SCREEN WITH THE RESULTING VIRTUAL FOLDERS AND ITEMS FOR THE USER TO INTERACT UPON
328
USER DECIDES TO CHANGE VIEW? (DIFFERENT QUERY/ PIVOT)
330
YES
NEW QUERY IS GENERATED
332
NO
RETURN

Fig.4.

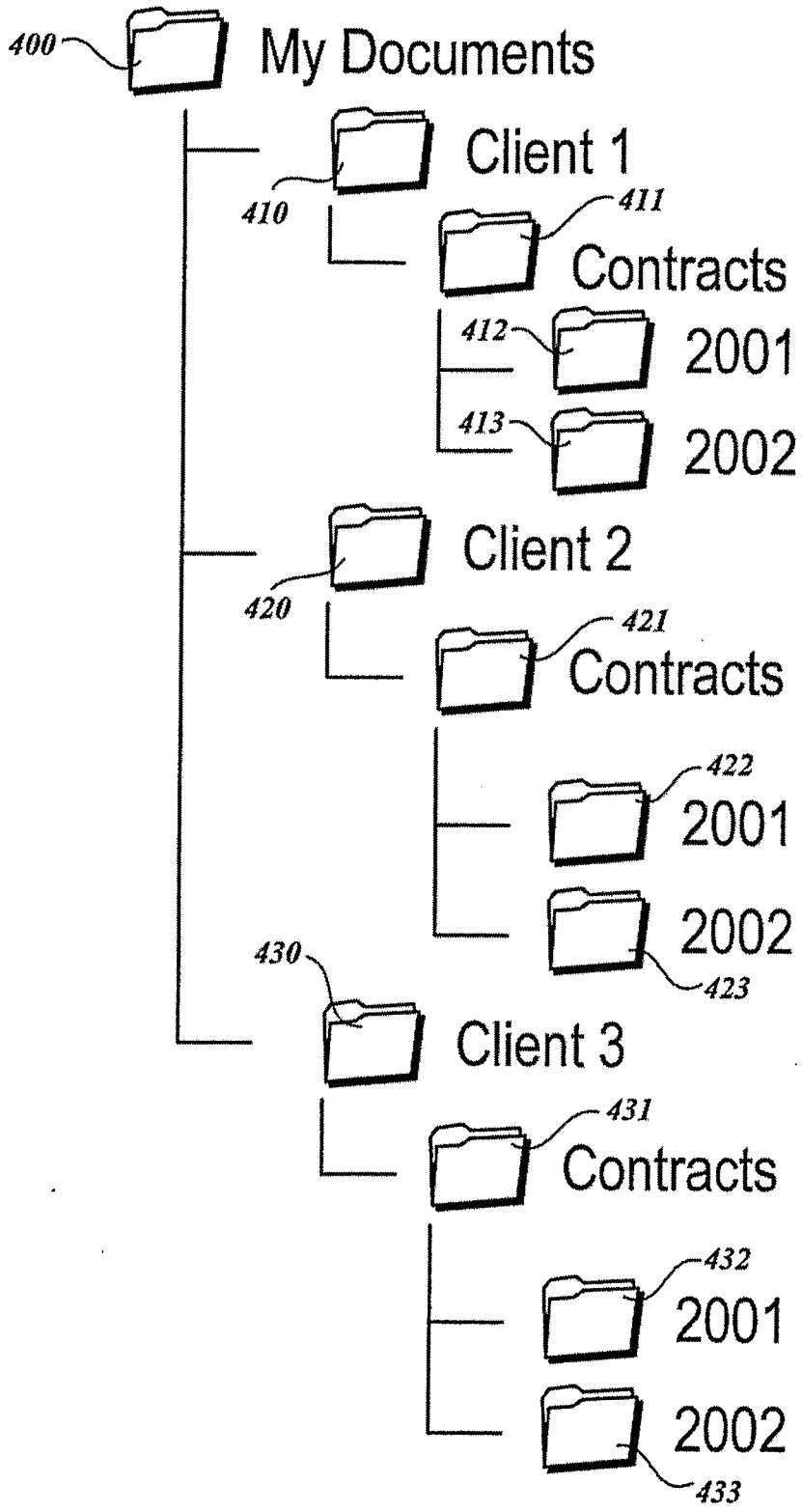

400
My Documents
Client 1
410
411
Contracts
412
2001
413
2002
Client 2
420
421
Contracts
422
2001
2002
423
430
Client 3
431
Contracts
432
2001
2002
433

Fig.5.

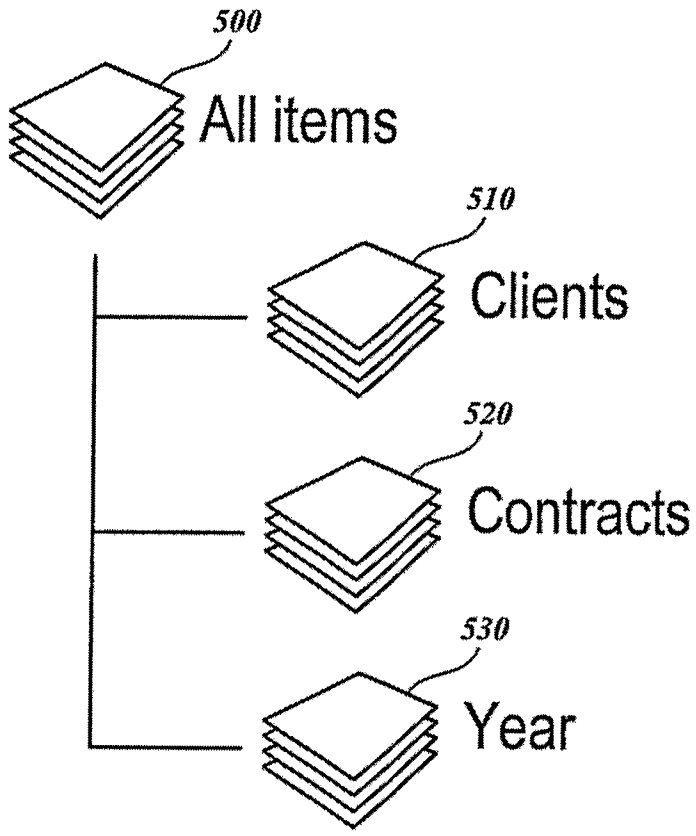


Fig. 6.

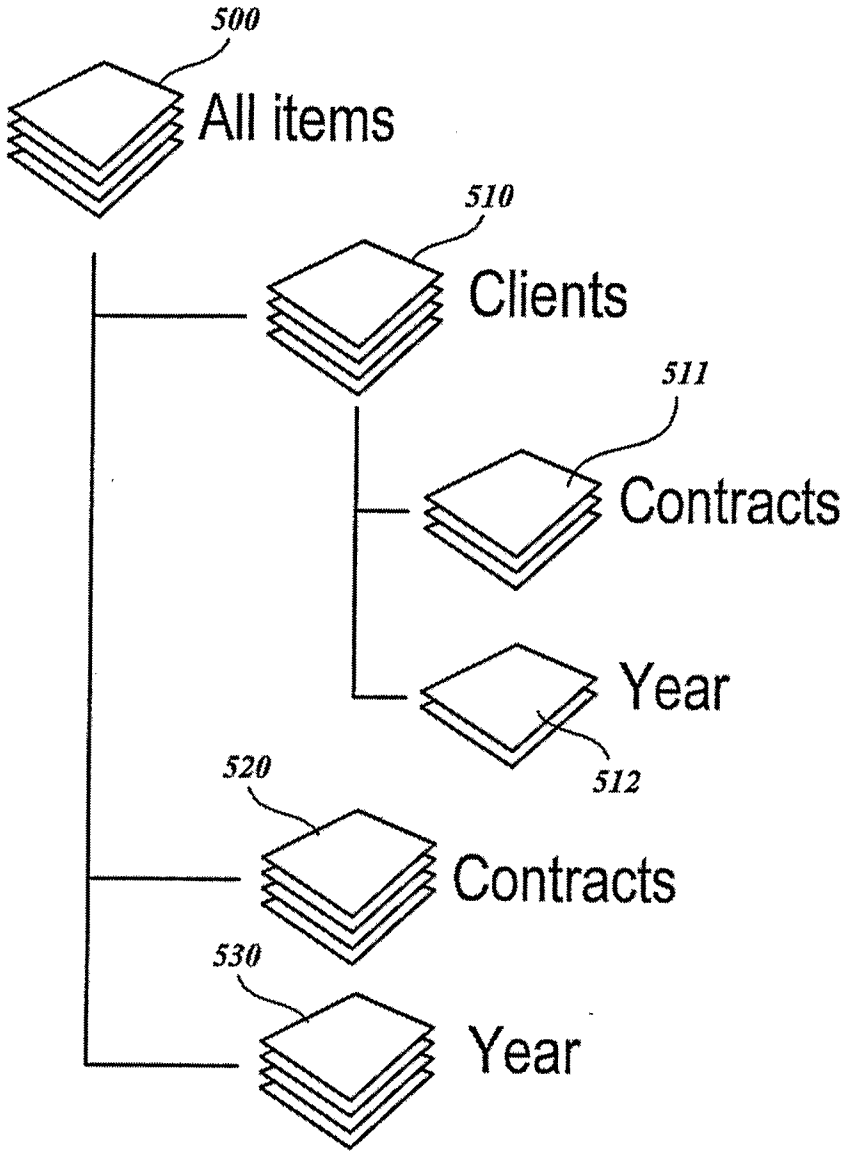

500
All items
510
Clients
511
Contracts
Year
512
520
Contracts
530
Year

Fig. 7.

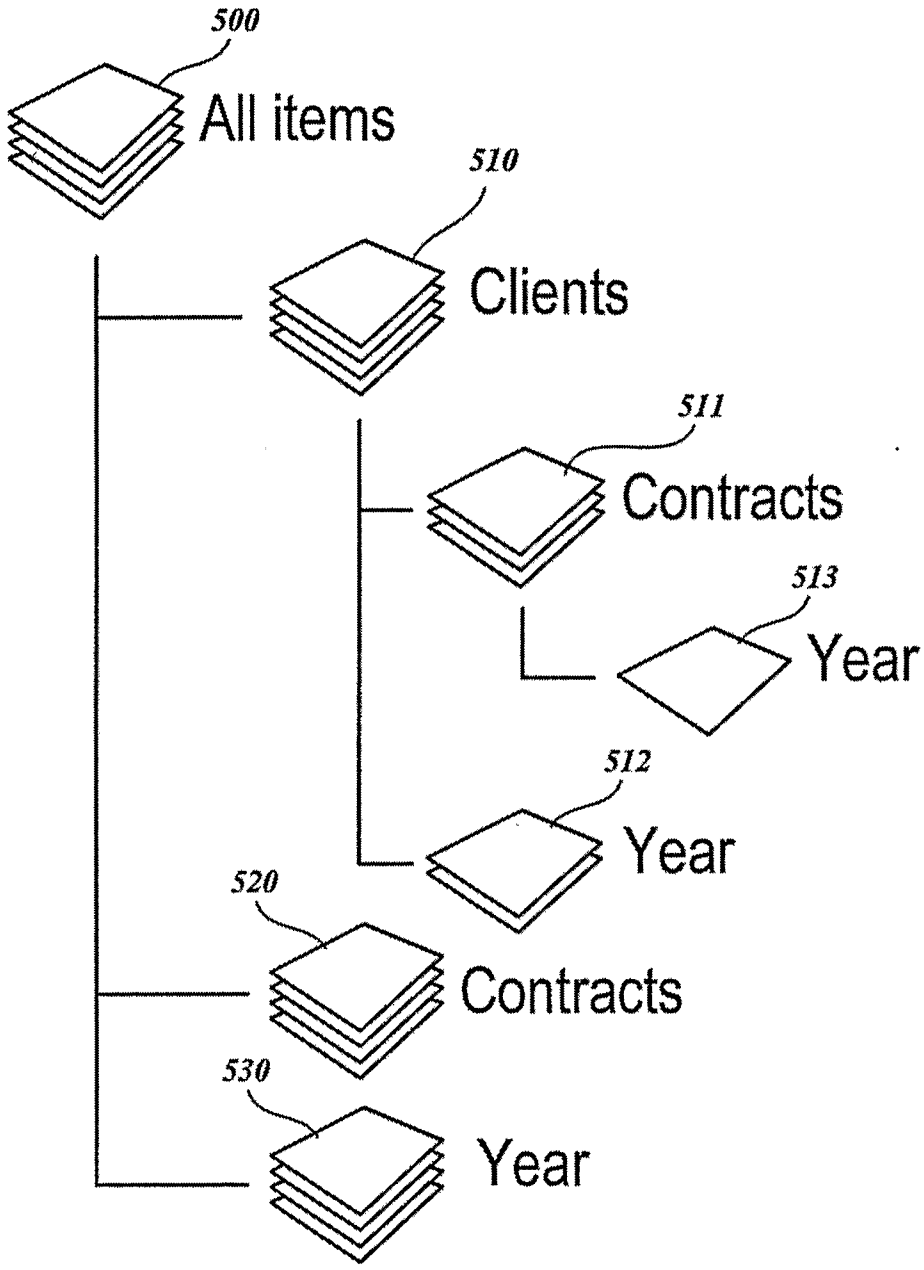

500
All items
510
Clients
511
Contracts
513
Year
512
Year
520
Contracts
530
Year

Fig.8.

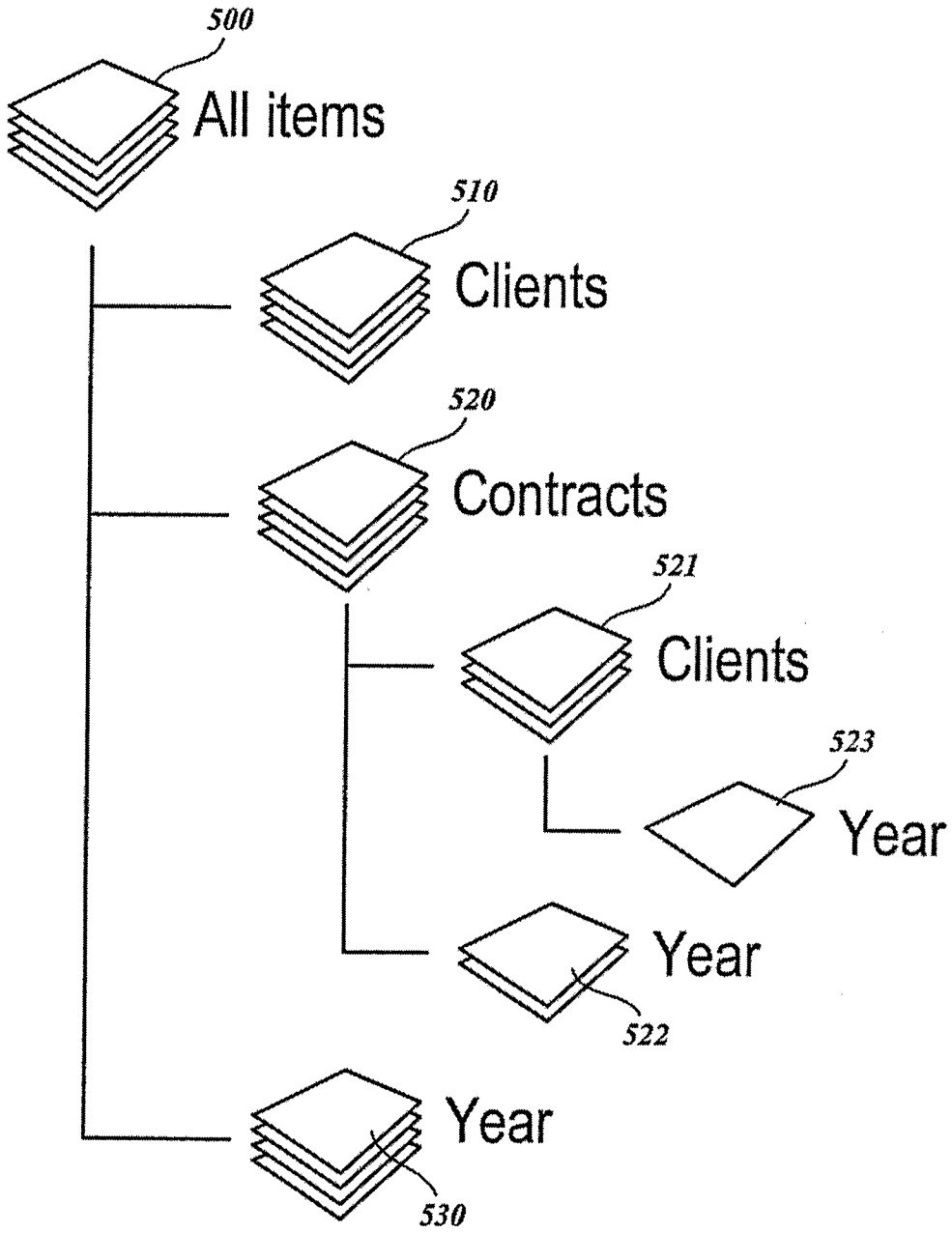

500
All items
510
Clients
520
Contracts
521
Clients
523
Year
Year
522
Year
530

Fig.9.

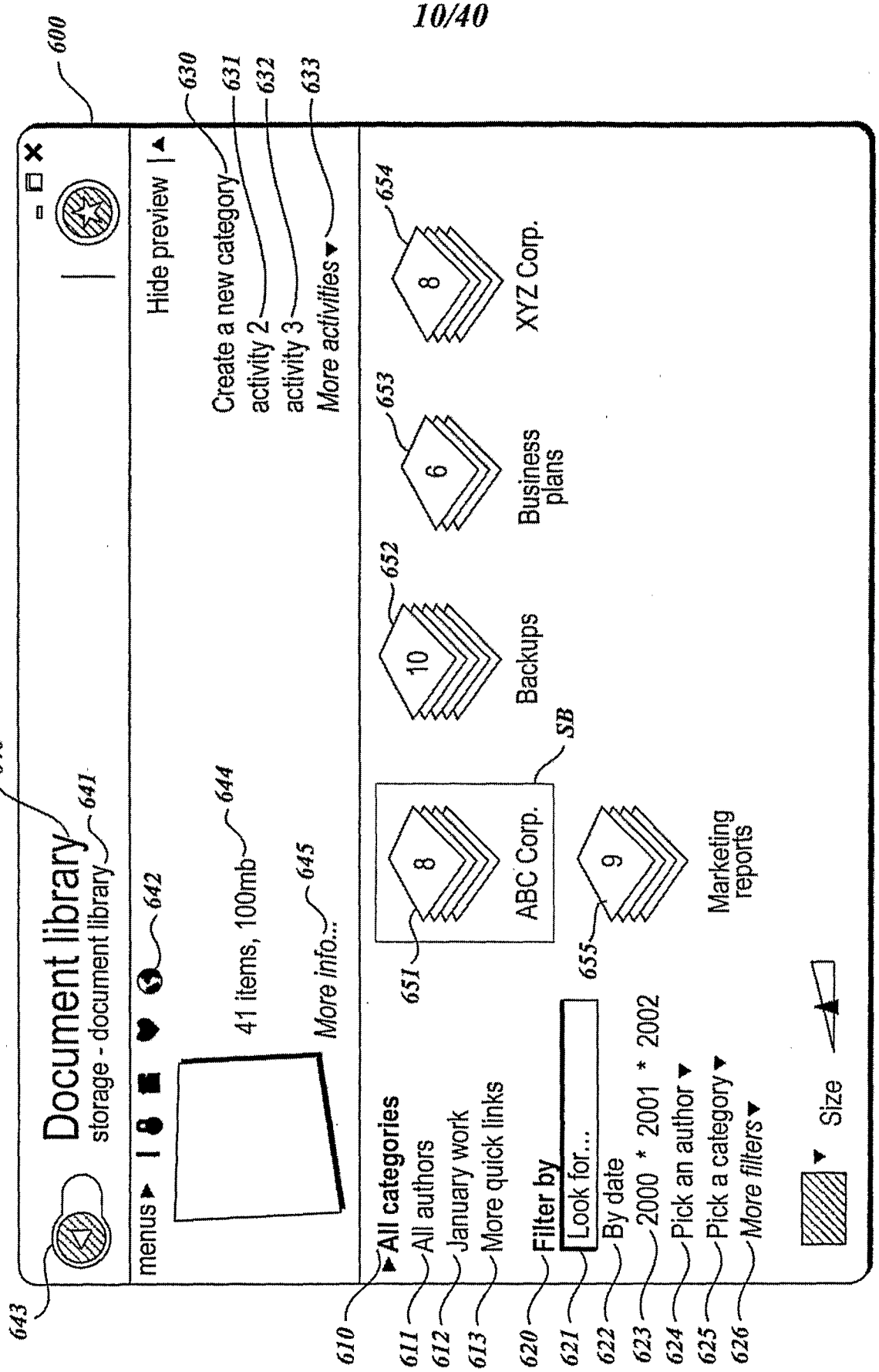

600
630
631
632
633
640
641
642
644
645
643
610
611
612
613
620
621
622
623
624
625
626
651
652
653
654
655
SB
Document library
storage - document library
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
41 items, 100mb
More info...
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
8
10
6
8
9
Backups
Business plans
XYZ Corp.
ABC Corp.
Marketing reports

Fig.10.

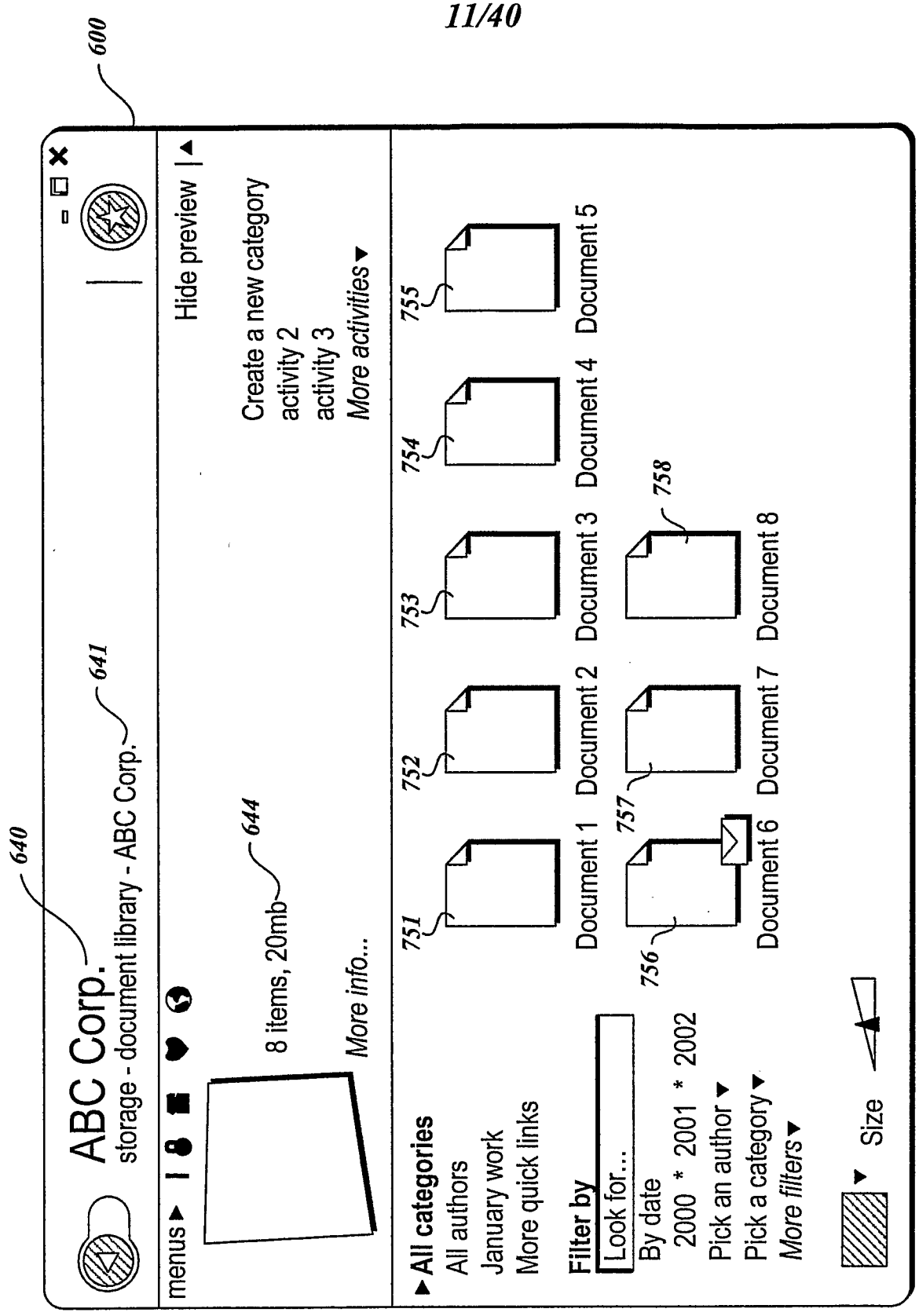

600
640
ABC Corp.
storage - document library - ABC Corp.
641
menus
Hide preview
644
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
751
752
753
754
755
757
758
756
Document 1
Document 2
Document 3
Document 4
Document 5
Document 6
Document 7
Document 8

Fig.11.

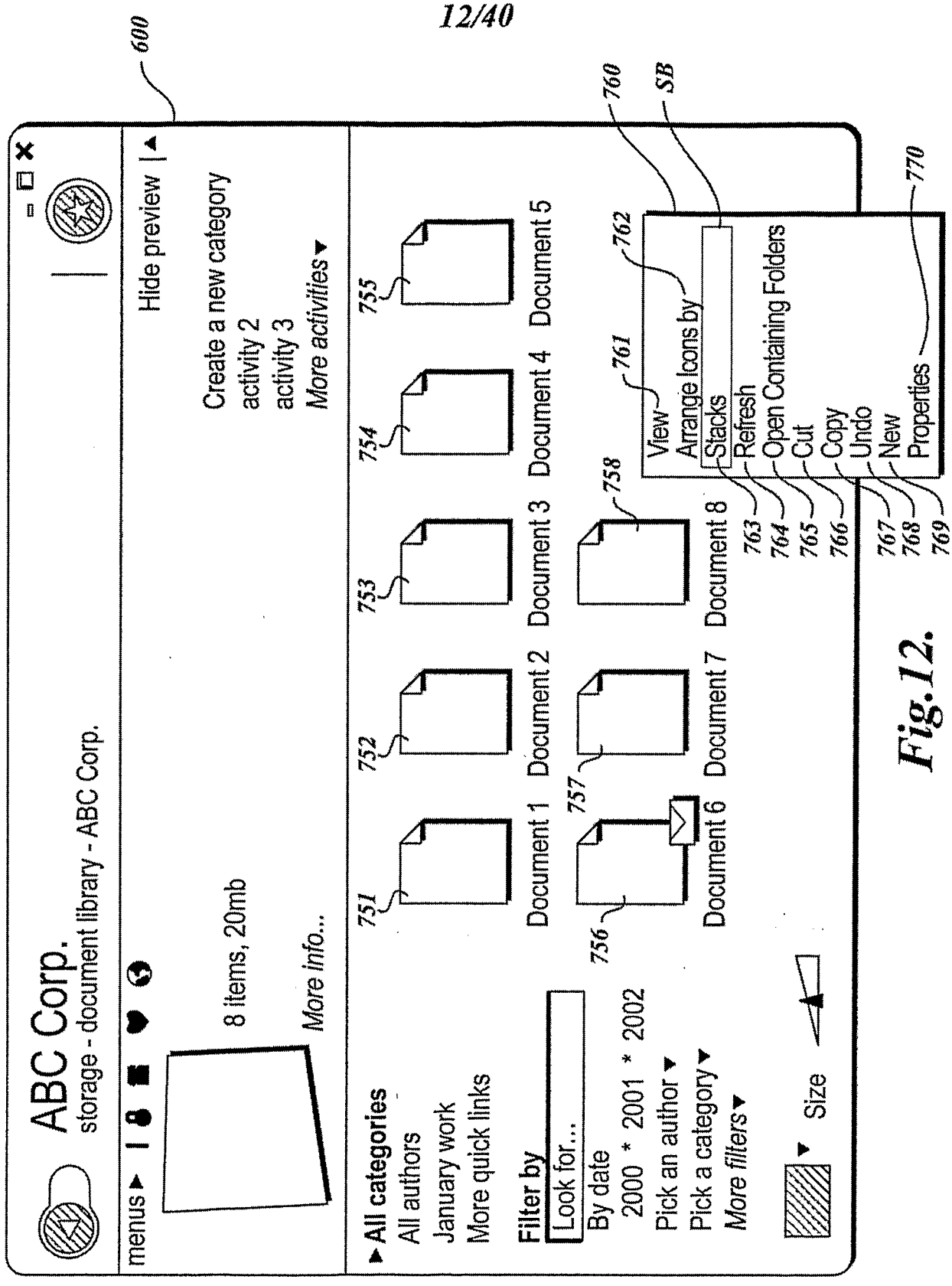

600
ABC Corp.
storage - document library - ABC Corp.
menus
Hide preview
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
751
752
753
754
755
Document 1
Document 2
Document 3
Document 4
Document 5
756
757
758
Document 6
Document 7
Document 8
760
SB
761
762
View
Arrange Icons by
Stacks
Refresh
Open Containing Folders
Cut
Copy
Undo
New
Properties
763
764
765
766
767
768
769
770

Fig.12.

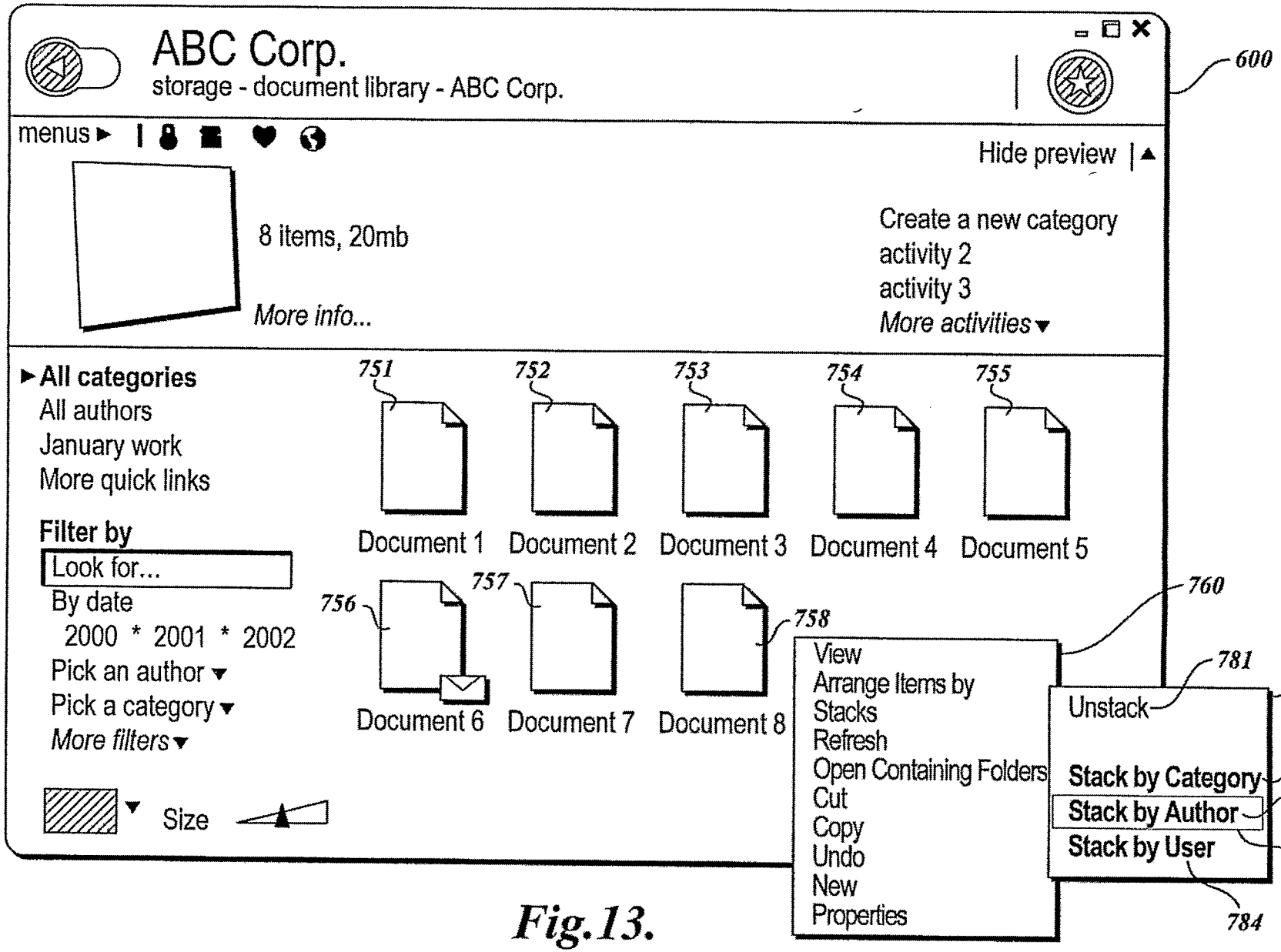

ABC Corp.
storage - document library - ABC Corp.
600
menus ▶
Hide preview
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
▶ All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
751
752
753
754
755
Document 1
Document 2
Document 3
Document 4
Document 5
756
757
758
Document 6
Document 7
Document 8
760
View
Arrange Items by
Stacks
Refresh
Open Containing Folders
Cut
Copy
Undo
New
Properties
781
780
Unstack
782
Stack by Category
783
Stack by Author
Stack by User
SB
784

Fig.13.

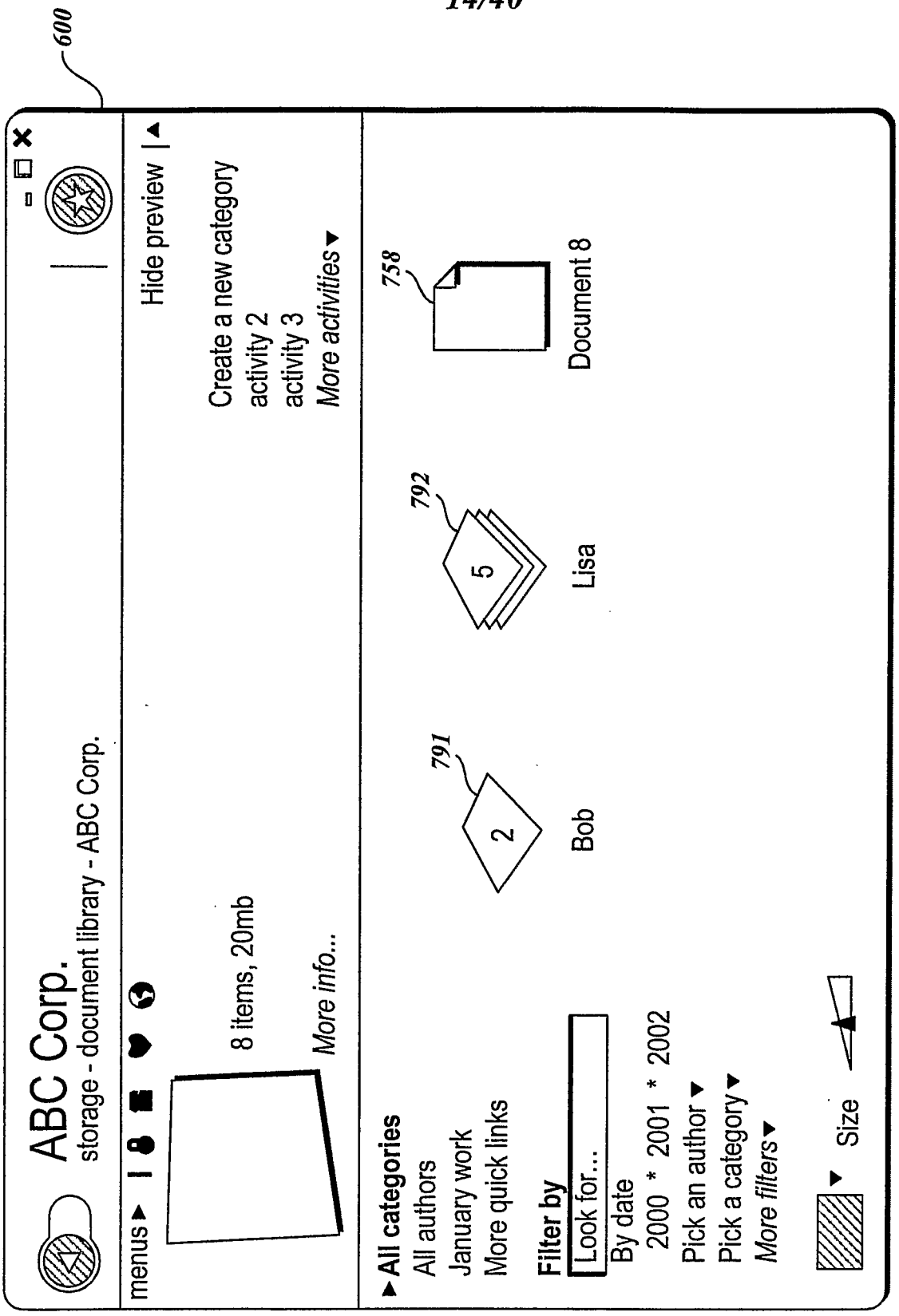

600
ABC Corp.
storage - document library - ABC Corp.
menus
Hide preview
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
791
2
Bob
792
5
Lisa
758
Document 8

Fig.14.

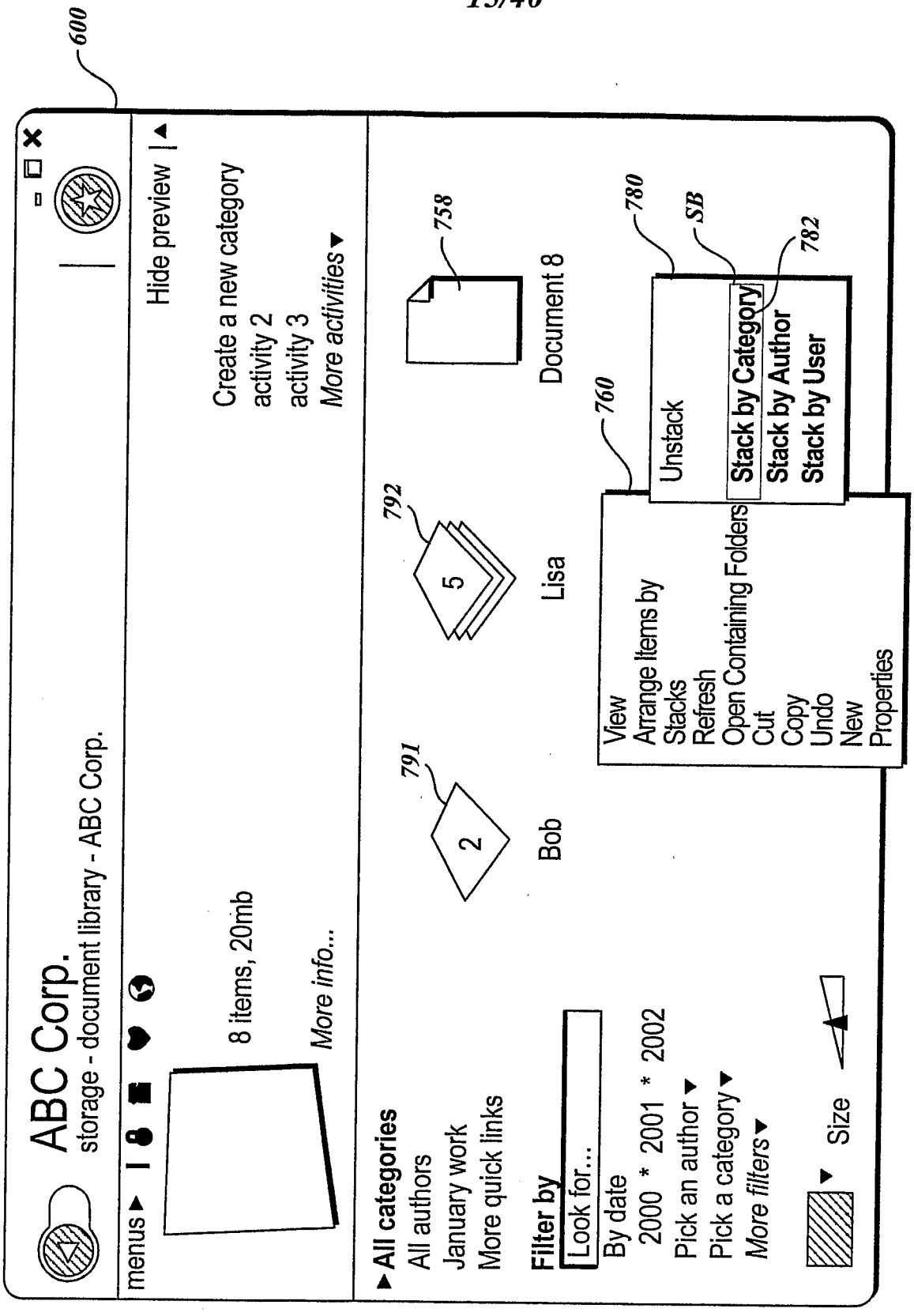

600
ABC Corp.
storage - document library - ABC Corp.
menus
Hide preview
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
791
2
Bob
792
5
Lisa
758
Document 8
760
View
Arrange Items by
Stacks
Refresh
Open Containing Folders
Cut
Copy
Undo
New
Properties
780
Unstack
SB
Stack by Category
Stack by Author
Stack by User
782

Fig.15.

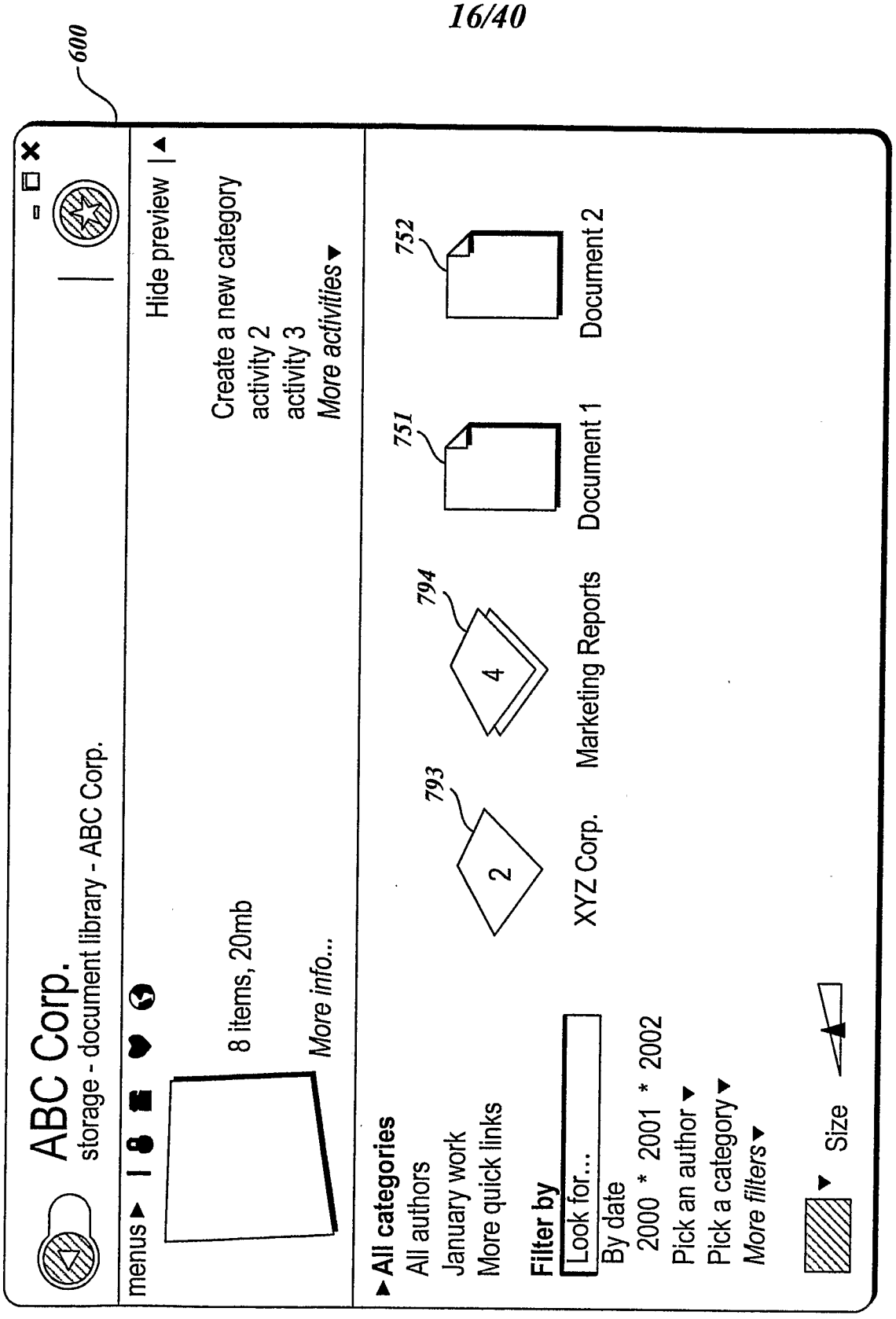

600
ABC Corp.
storage - document library - ABC Corp.
menus
Hide preview
8 items, 20mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
793
2
XYZ Corp.
794
4
Marketing Reports
751
Document 1
752
Document 2

Fig.16.

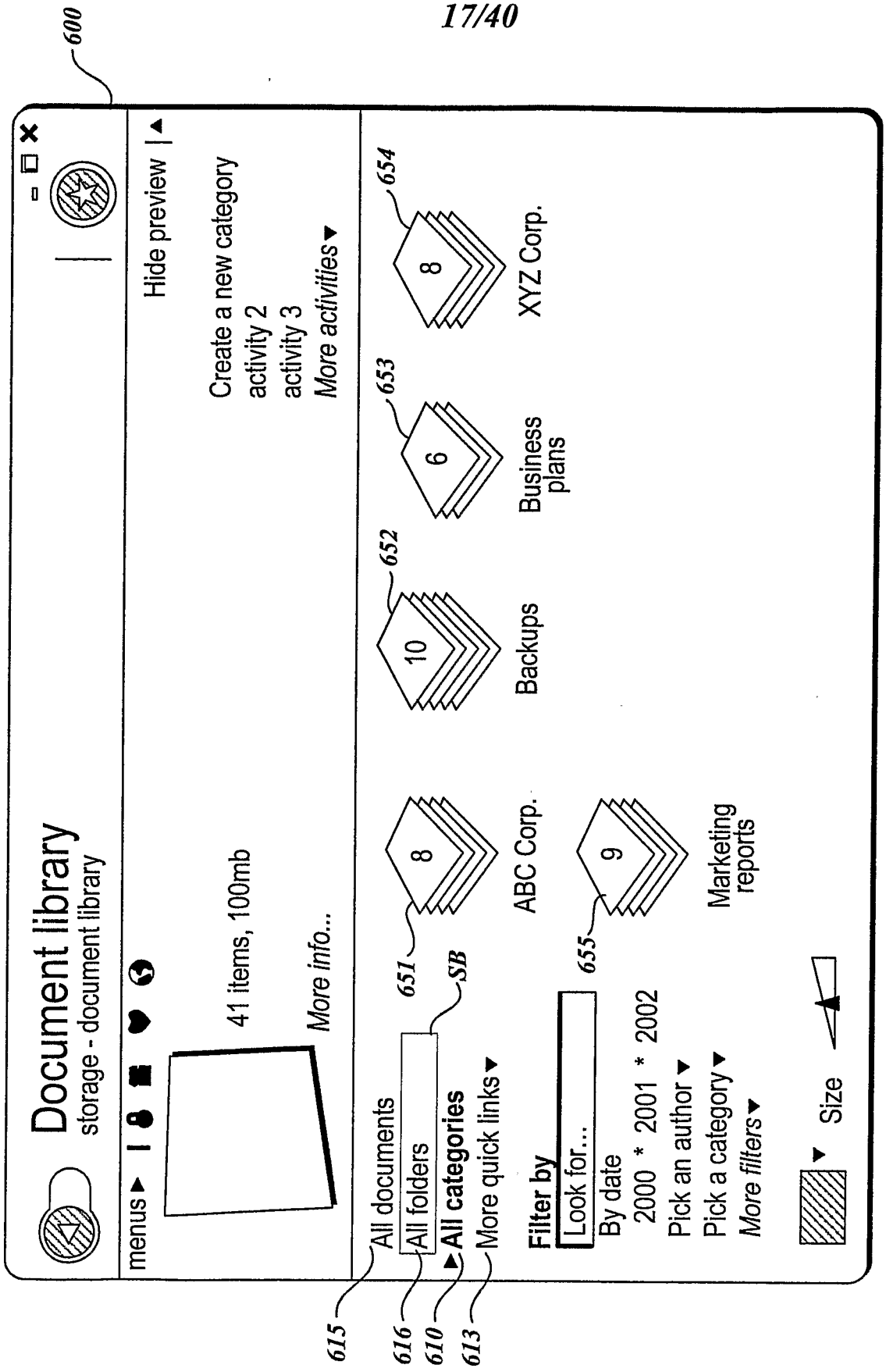

600
Document library
storage - document library
menus
Hide preview
41 items, 100mb
More info...
Create a new category
activity 2
activity 3
More activities
All documents
All folders
All categories
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
615
616
610
613
651
SB
655
652
653
654
8
ABC Corp.
9
Marketing reports
10
Backups
6
Business plans
8
XYZ Corp.

Fig.17.

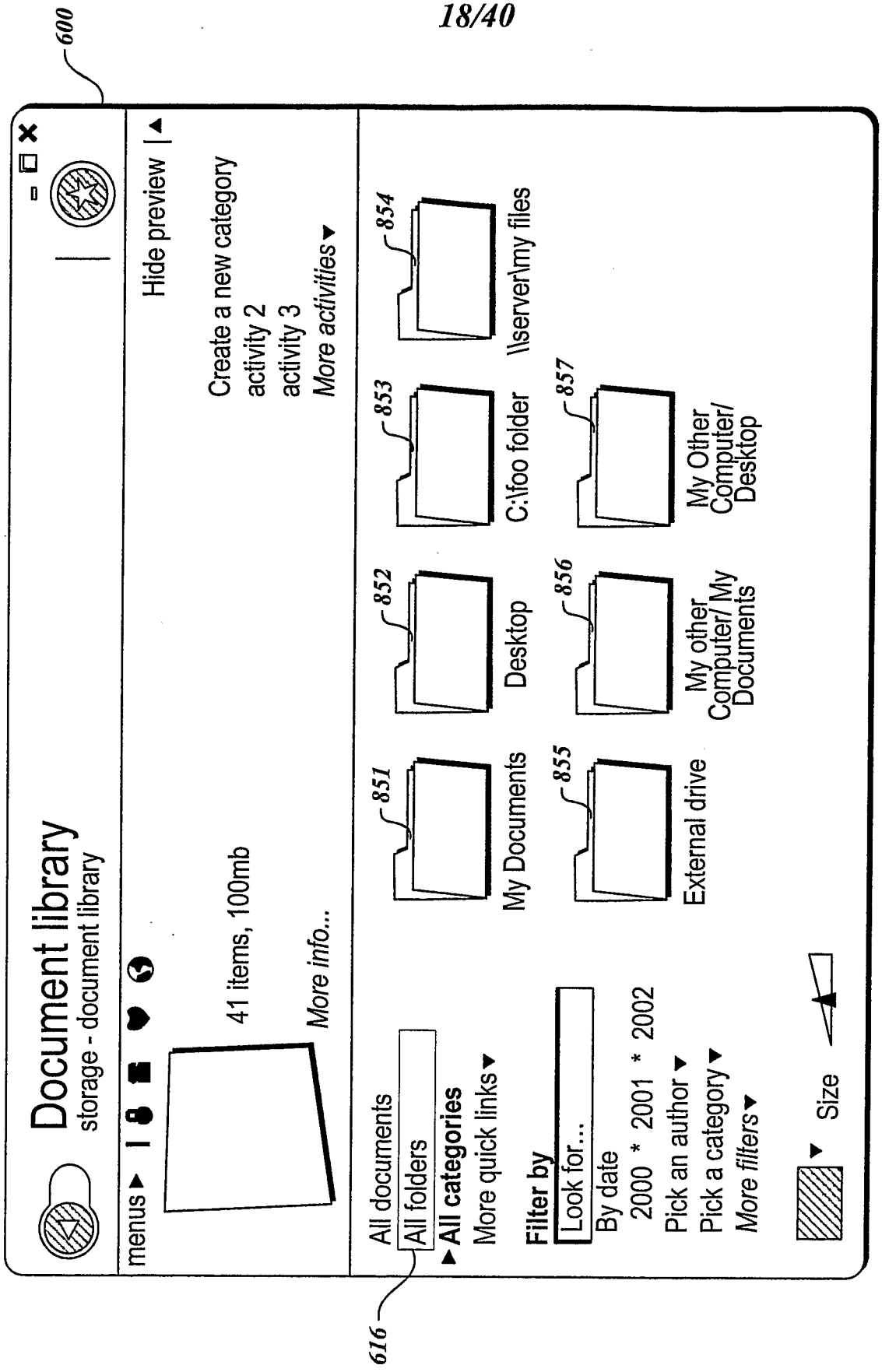

600
Document library
storage - document library
menus
41 items, 100mb
More info...
Hide preview
Create a new category
activity 2
activity 3
More activities
All documents
All folders
All categories
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
616
851
My Documents
852
Desktop
853
C:\foo folder
854
\\server\my files
855
External drive
856
My other Computer/ My Documents
857
My Other Computer/ Desktop

Fig.18.

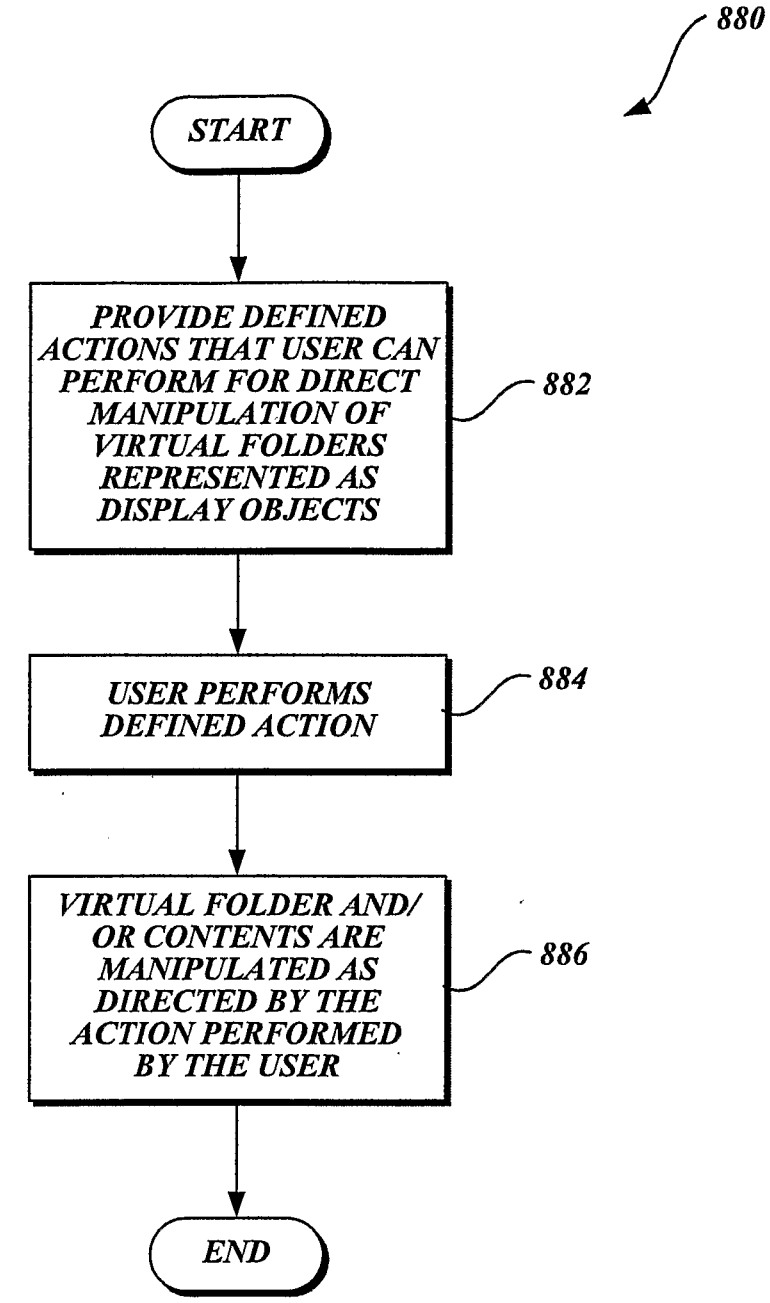

880
START
PROVIDE DEFINED ACTIONS THAT USER CAN PERFORM FOR DIRECT MANIPULATION OF VIRTUAL FOLDERS REPRESENTED AS DISPLAY OBJECTS
882
USER PERFORMS DEFINED ACTION
884
VIRTUAL FOLDER AND/ OR CONTENTS ARE MANIPULATED AS DIRECTED BY THE ACTION PERFORMED BY THE USER
886
END

Fig.19.

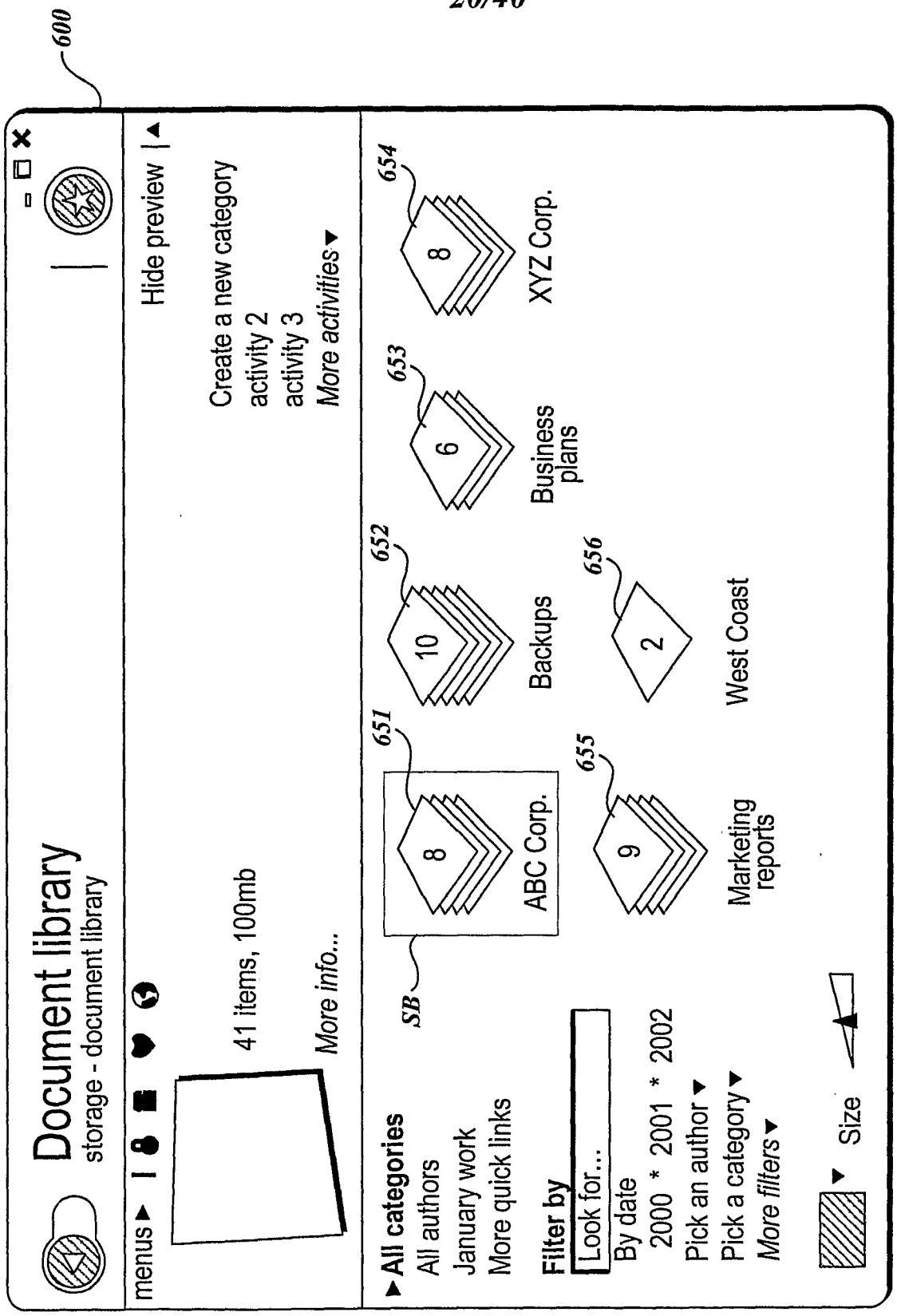

600
Document library
storage - document library
menus
Hide preview
41 items, 100mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
SB
651
8
ABC Corp.
652
10
Backups
653
6
Business plans
654
8
XYZ Corp.
655
9
Marketing reports
656
2
West Coast

Fig.20.

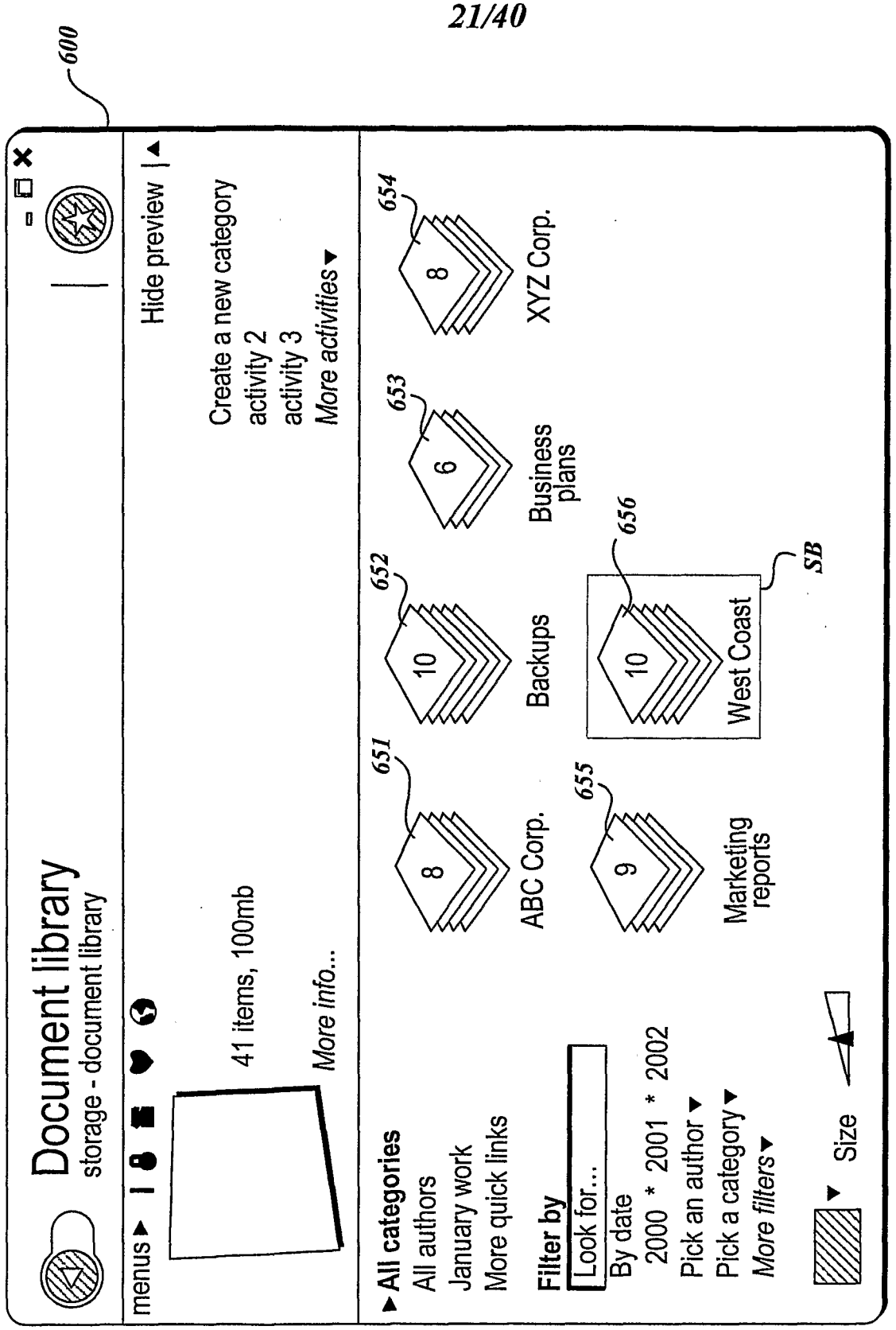

600
Document library
storage - document library
menus
Hide preview
41 items, 100mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
651
8
ABC Corp.
652
10
Backups
653
6
Business plans
654
8
XYZ Corp.
655
9
Marketing reports
656
10
West Coast
SB

Fig.21.

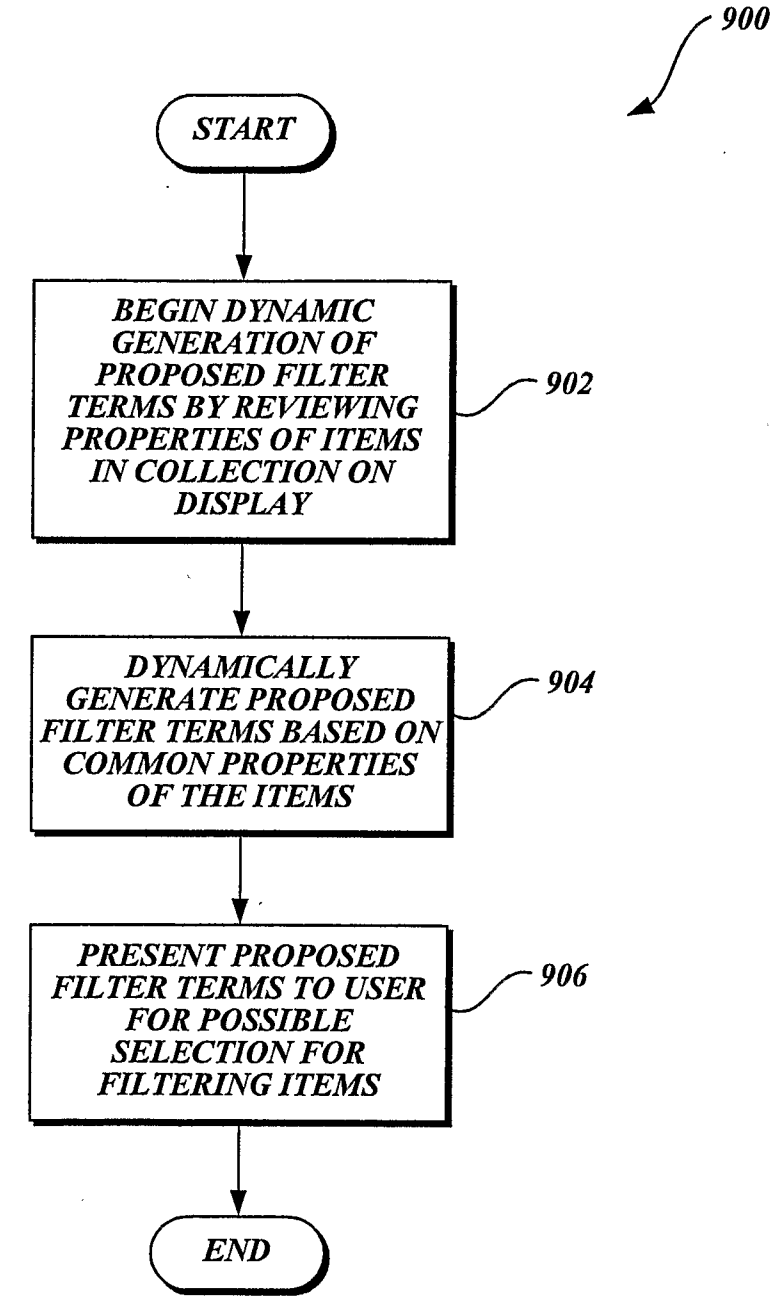

900
START
BEGIN DYNAMIC GENERATION OF PROPOSED FILTER TERMS BY REVIEWING PROPERTIES OF ITEMS IN COLLECTION ON DISPLAY
902
DYNAMICALLY GENERATE PROPOSED FILTER TERMS BASED ON COMMON PROPERTIES OF THE ITEMS
904
PRESENT PROPOSED FILTER TERMS TO USER FOR POSSIBLE SELECTION FOR FILTERING ITEMS
906
END

Fig.22.

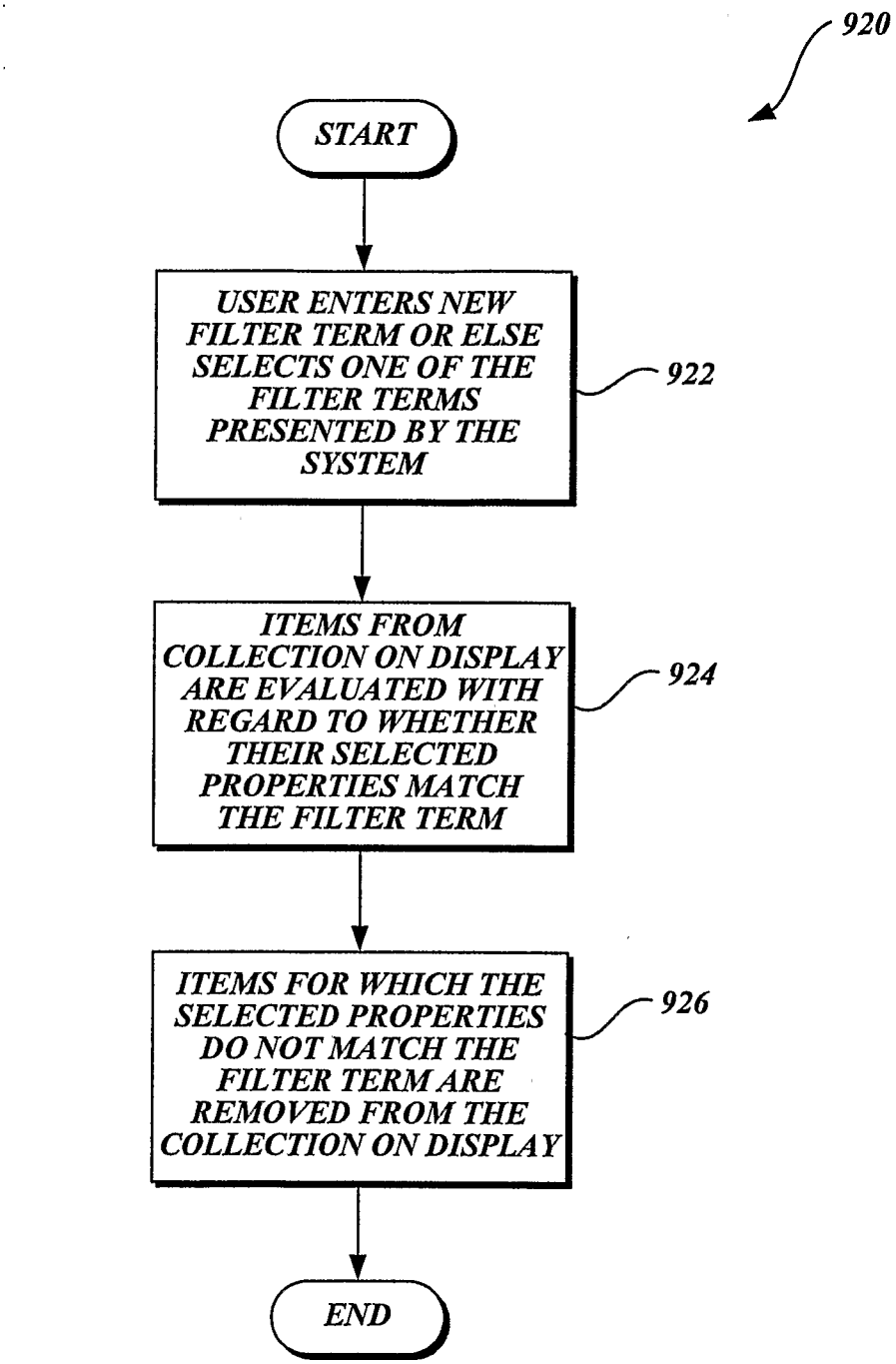

920
START
USER ENTERS NEW FILTER TERM OR ELSE SELECTS ONE OF THE FILTER TERMS PRESENTED BY THE SYSTEM
922
ITEMS FROM COLLECTION ON DISPLAY ARE EVALUATED WITH REGARD TO WHETHER THEIR SELECTED PROPERTIES MATCH THE FILTER TERM
924
ITEMS FOR WHICH THE SELECTED PROPERTIES DO NOT MATCH THE FILTER TERM ARE REMOVED FROM THE COLLECTION ON DISPLAY
926
END

Fig.23.

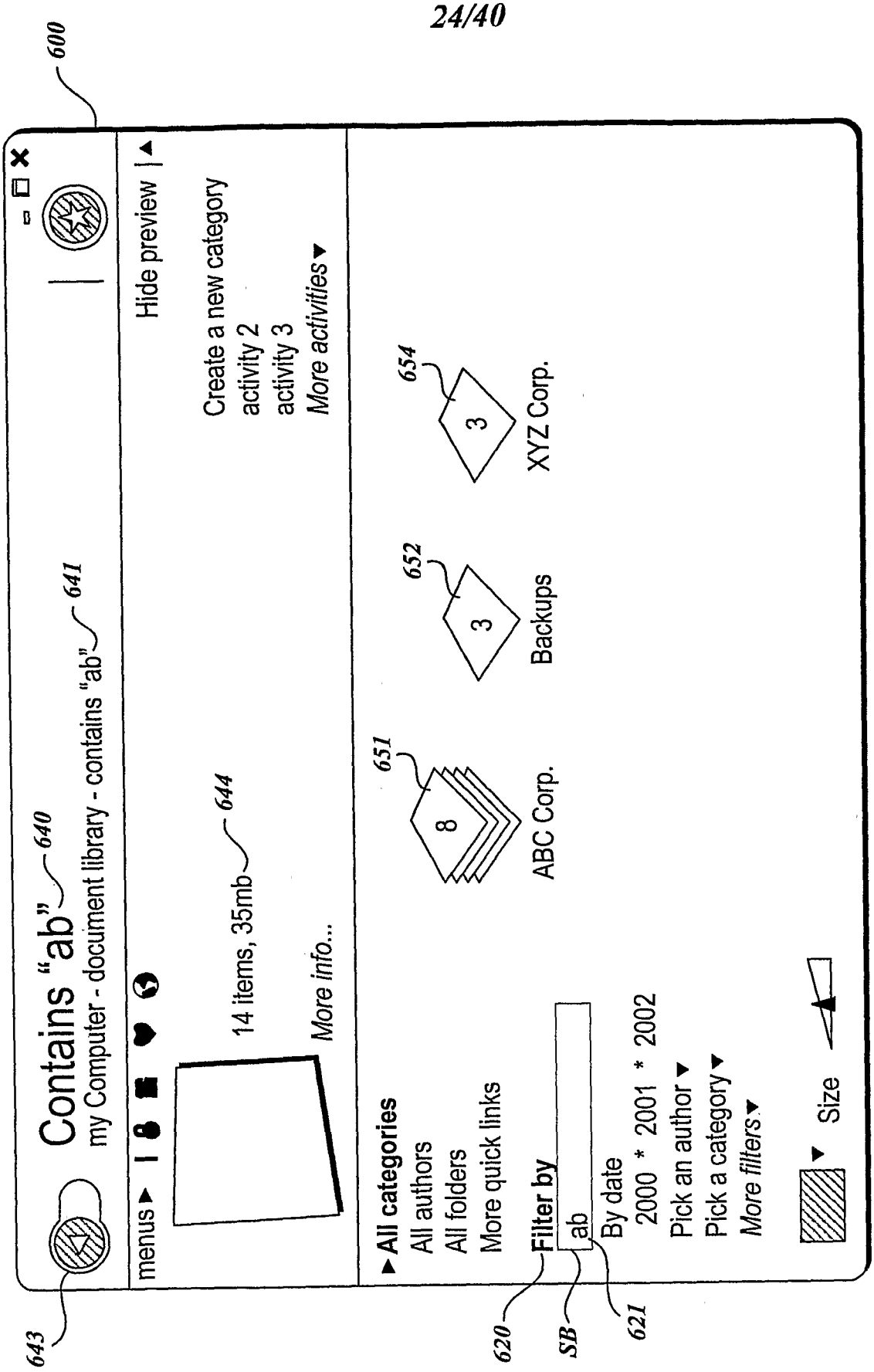

600
Contains "ab"
640
my Computer - document library - contains "ab"
641
menus
Hide preview
14 items, 35mb
644
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
All folders
More quick links
Filter by
ab
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
651
8
ABC Corp.
652
3
Backups
654
3
XYZ Corp.
643
620
SB
621

Fig.24.

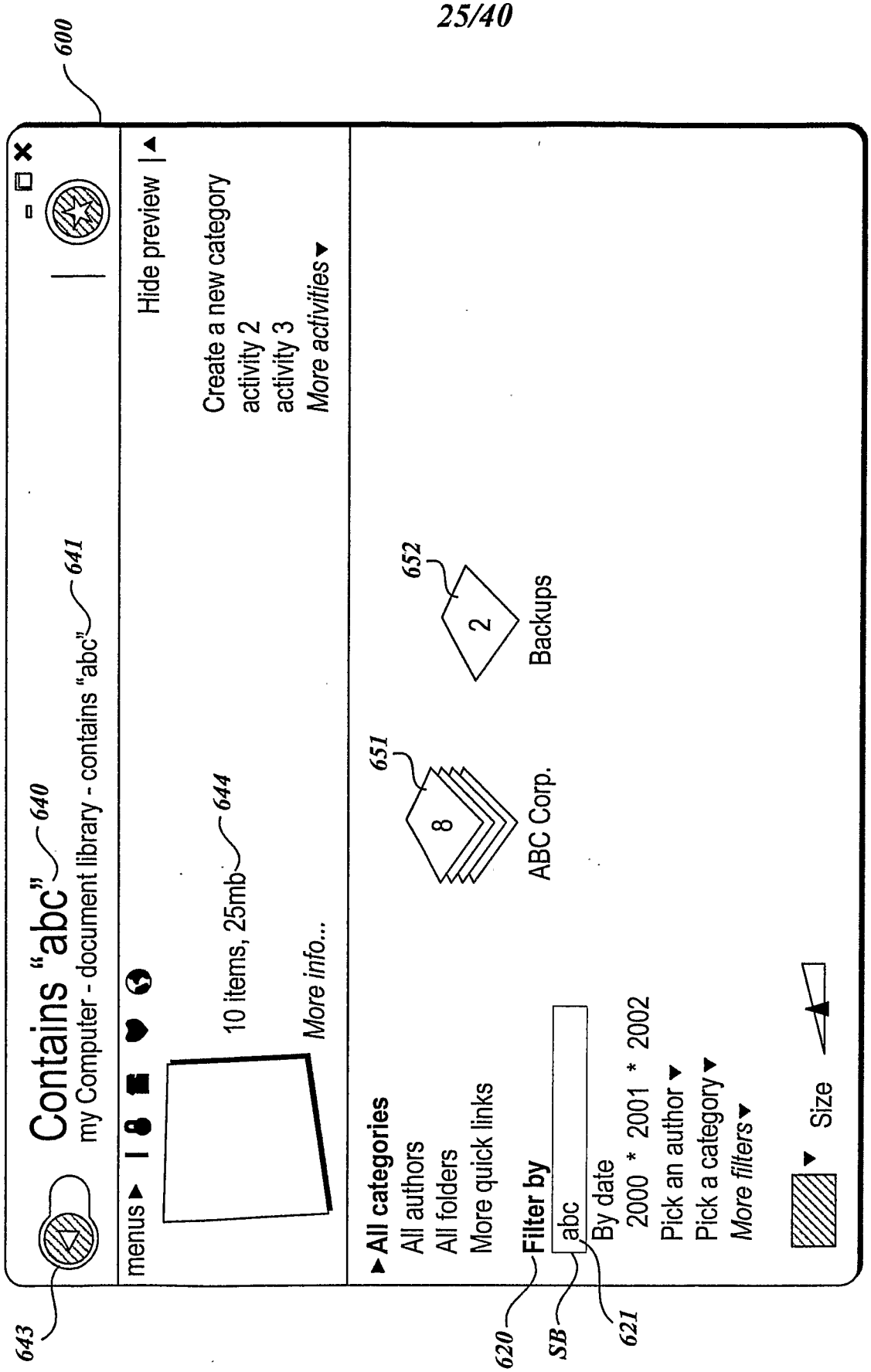

600
Contains "abc"
640
my Computer - document library - contains "abc"
641
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
10 items, 25mb
644
More info...
651
8
652
2
Backups
ABC Corp.
All categories
All authors
All folders
More quick links
Filter by
abc
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
643
620
SB
621

Fig. 25.

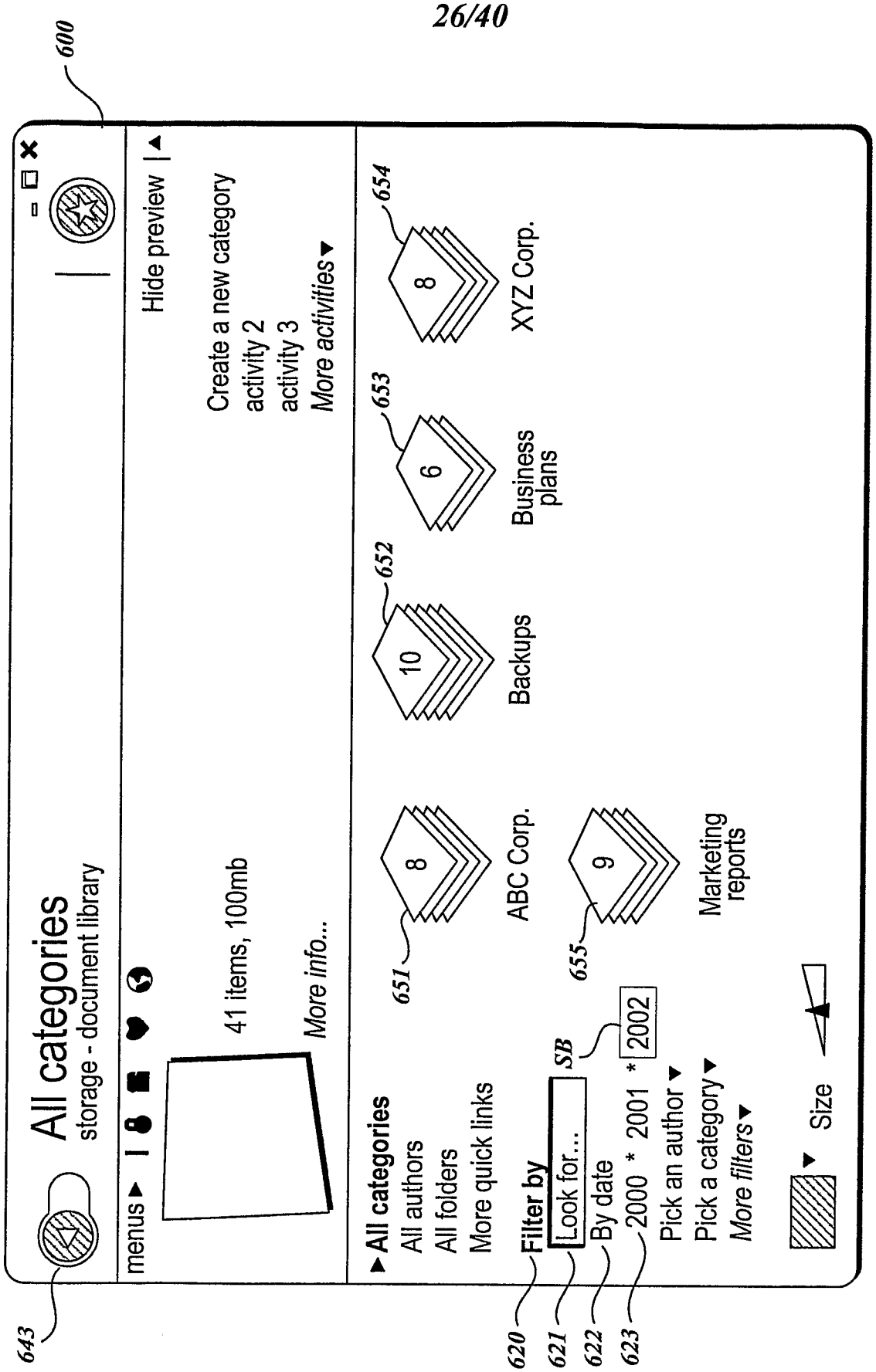

600
All categories
storage - document library
menus
Hide preview
41 items, 100mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
All folders
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
8
ABC Corp.
10
Backups
6
Business plans
8
XYZ Corp.
9
Marketing reports
643
620
621
622
623
SB
651
652
653
654
655

Fig.26.

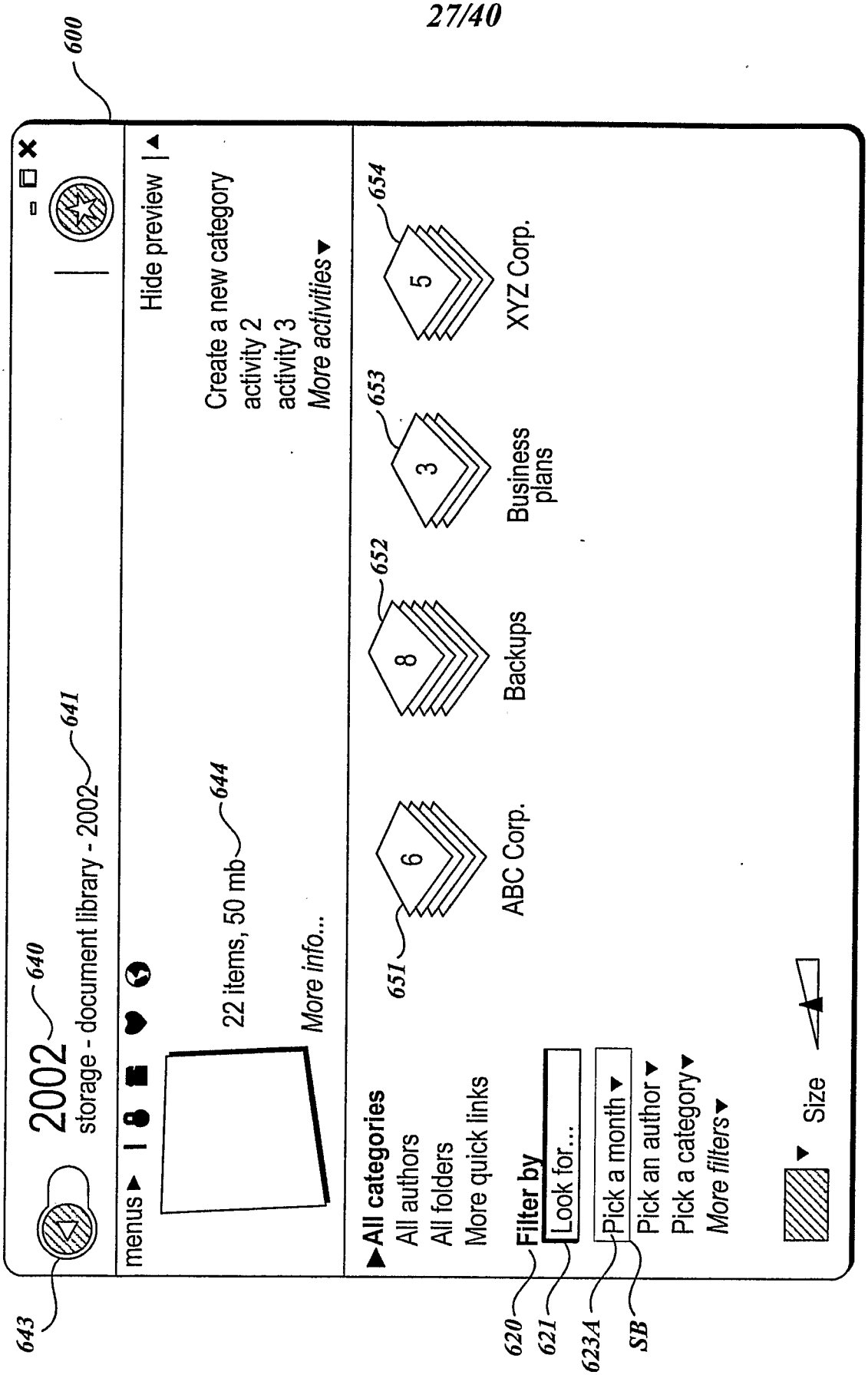

600
2002
640
storage - document library - 2002
641
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
22 items, 50 mb
644
More info...
All categories
All authors
All folders
More quick links
651
6
ABC Corp.
652
8
Backups
653
3
Business plans
654
5
XYZ Corp.
Filter by
Look for...
Pick a month
Pick an author
Pick a category
More filters
Size
643
620
621
623A
SB

Fig.27.

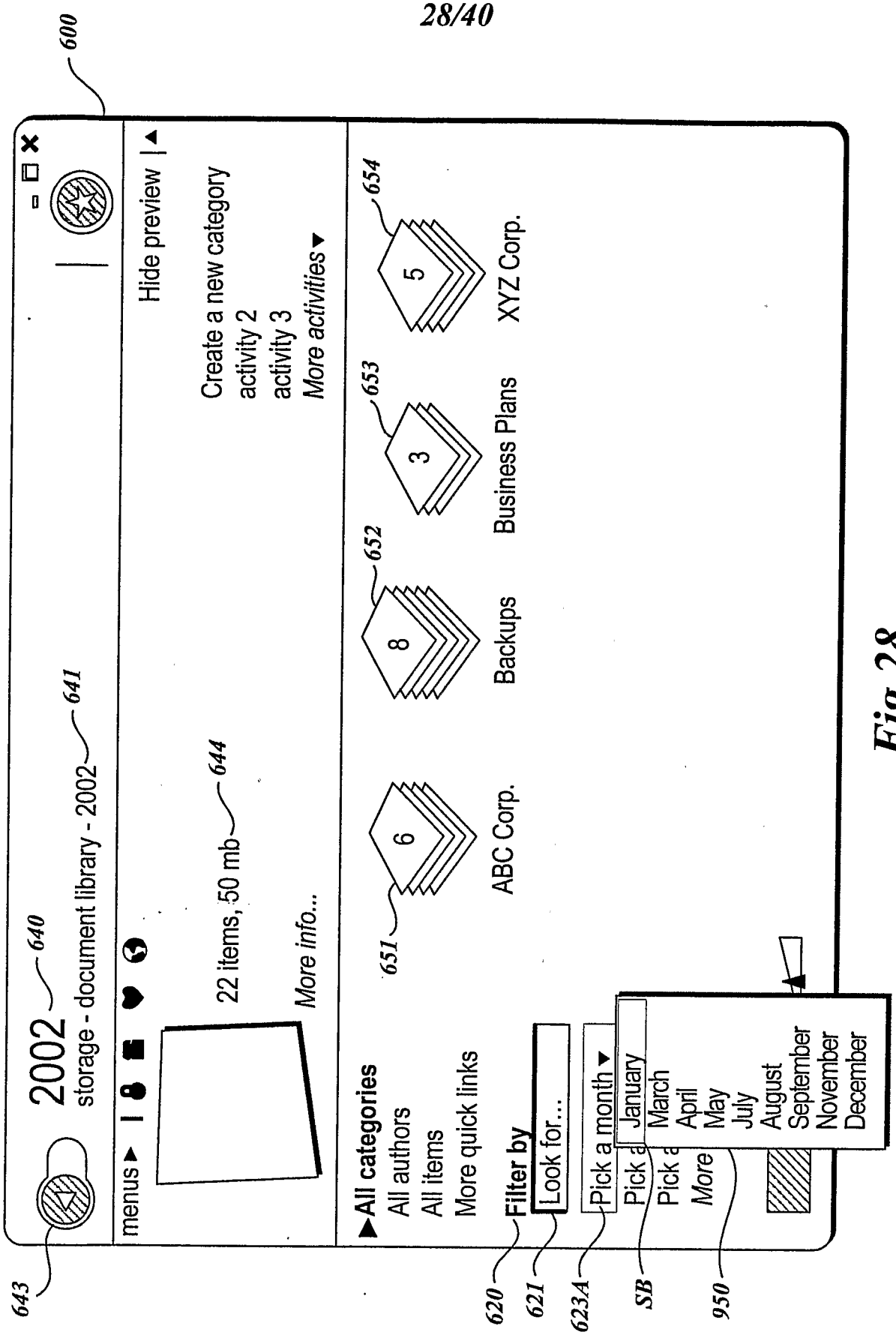

600
2002
640
storage - document library - 2002
641
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
22 items, 50 mb
644
More info...
654
653
652
651
6
8
3
5
ABC Corp.
Backups
Business Plans
XYZ Corp.
All categories
All authors
All items
More quick links
Filter by
Look for...
Pick a month
January
March
April
May
July
August
September
November
December
643
620
621
623A
SB
950

Fig. 28.

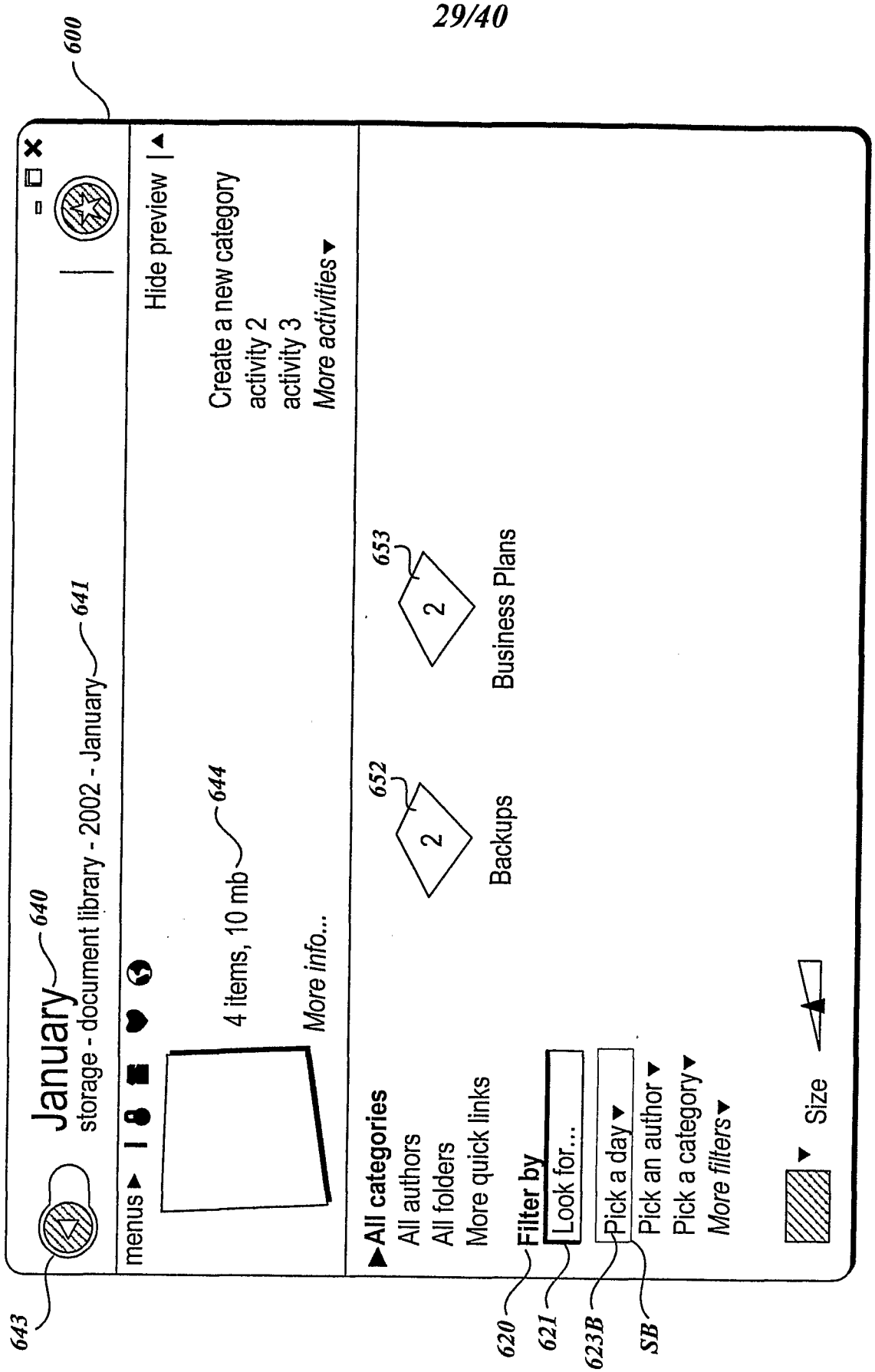

600
643
640
January
storage - document library - 2002 - January
641
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
4 items, 10 mb
644
More info...
652
2
Backups
653
2
Business Plans
All categories
All authors
All folders
More quick links
Filter by
620
Look for...
621
Pick a day
623B
Pick an author
SB
Pick a category
More filters
Size

Fig.29.

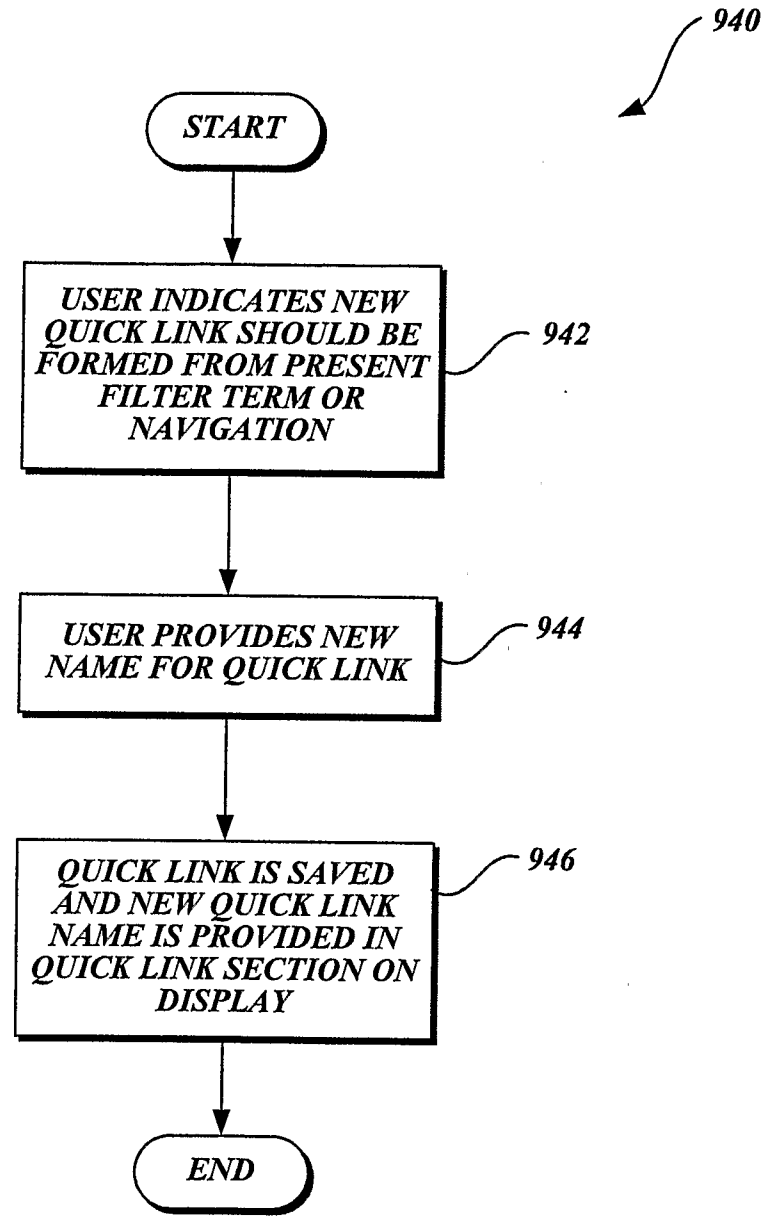

940
START
USER INDICATES NEW QUICK LINK SHOULD BE FORMED FROM PRESENT FILTER TERM OR NAVIGATION
942
USER PROVIDES NEW NAME FOR QUICK LINK
944
QUICK LINK IS SAVED AND NEW QUICK LINK NAME IS PROVIDED IN QUICK LINK SECTION ON DISPLAY
946
END

Fig.30.

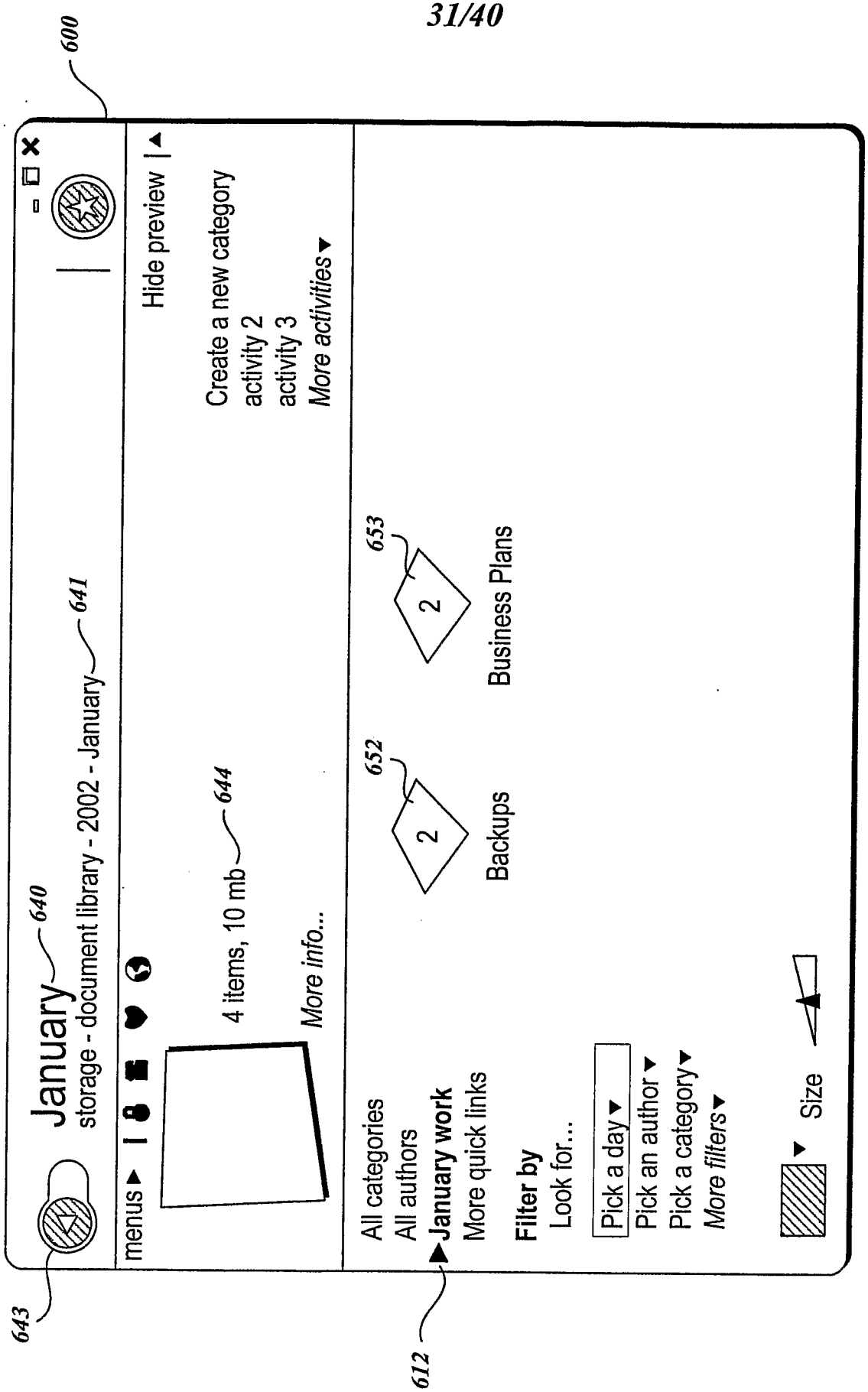

600
643
640
January
storage - document library - 2002 - January
641
menus
Hide preview
Create a new category
activity 2
activity 3
More activities
4 items, 10 mb
644
More info...
652
2
Backups
653
2
Business Plans
612
All categories
All authors
January work
More quick links
Filter by
Look for...
Pick a day
Pick an author
Pick a category
More filters
Size

Fig.31.

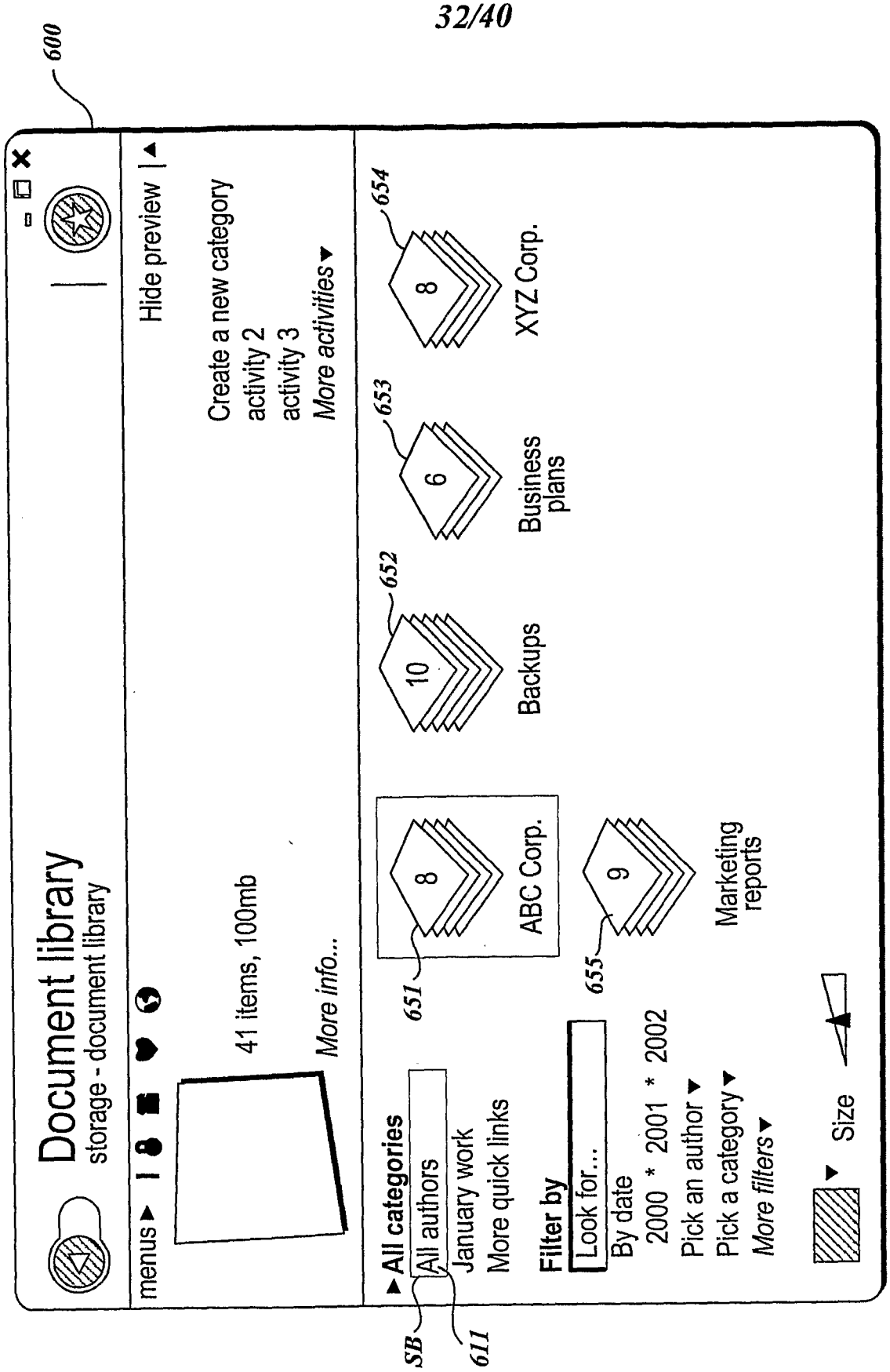

600
Document library
storage - document library
menus
Hide preview
41 items, 100mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
SB
611
651
655
652
653
654
8
ABC Corp.
9
Marketing reports
10
Backups
6
Business plans
8
XYZ Corp.

Fig.32.

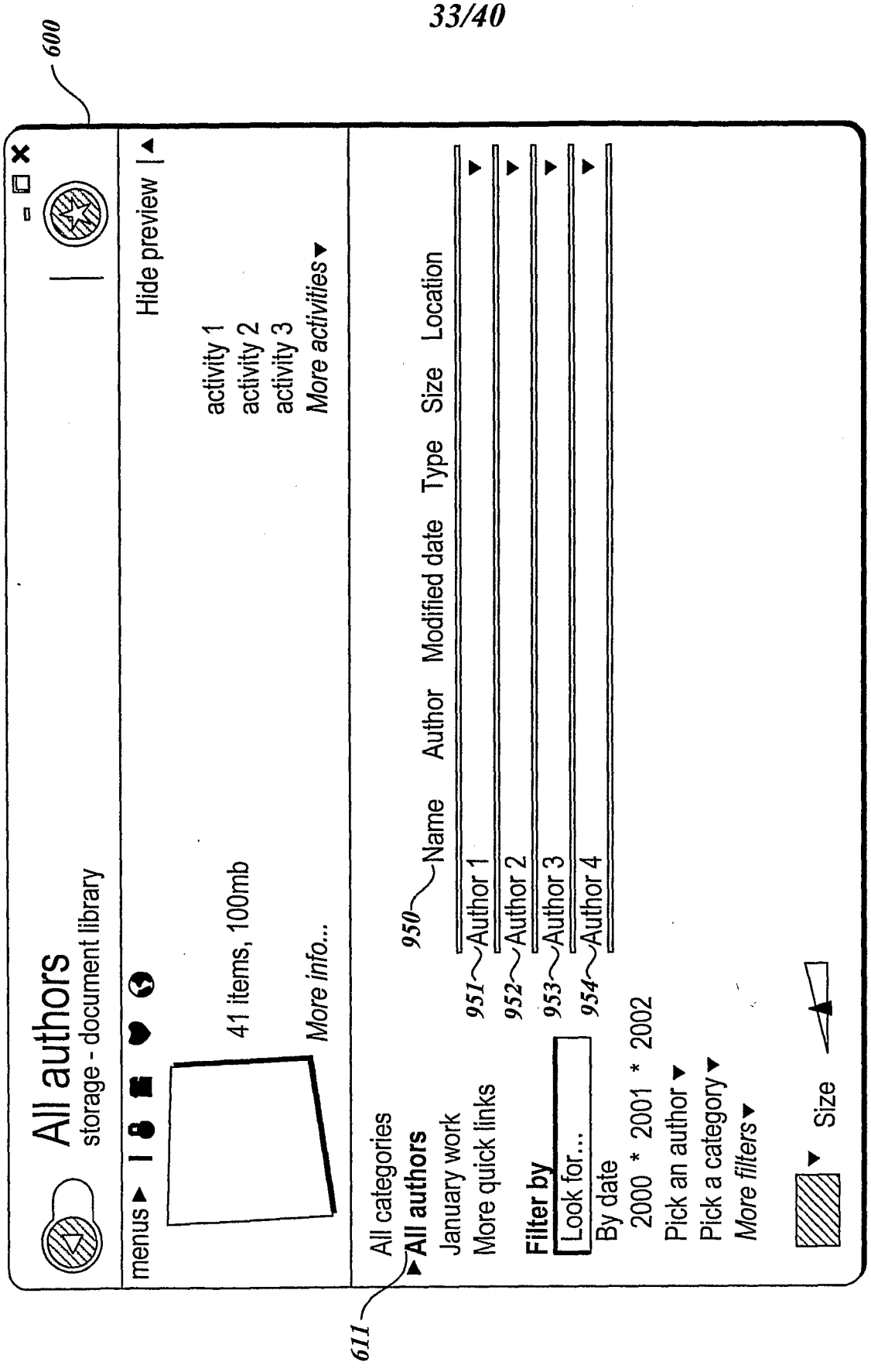

600
All authors
storage - document library
menus
Hide preview
activity 1
activity 2
activity 3
More activities
41 items, 100mb
More info...
611
All categories
All authors
January work
More quick links
Filter by
Look for...
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
950
Name
Author
Modified date
Type
Size
Location
951
Author 1
952
Author 2
953
Author 3
954
Author 4

Fig.33.

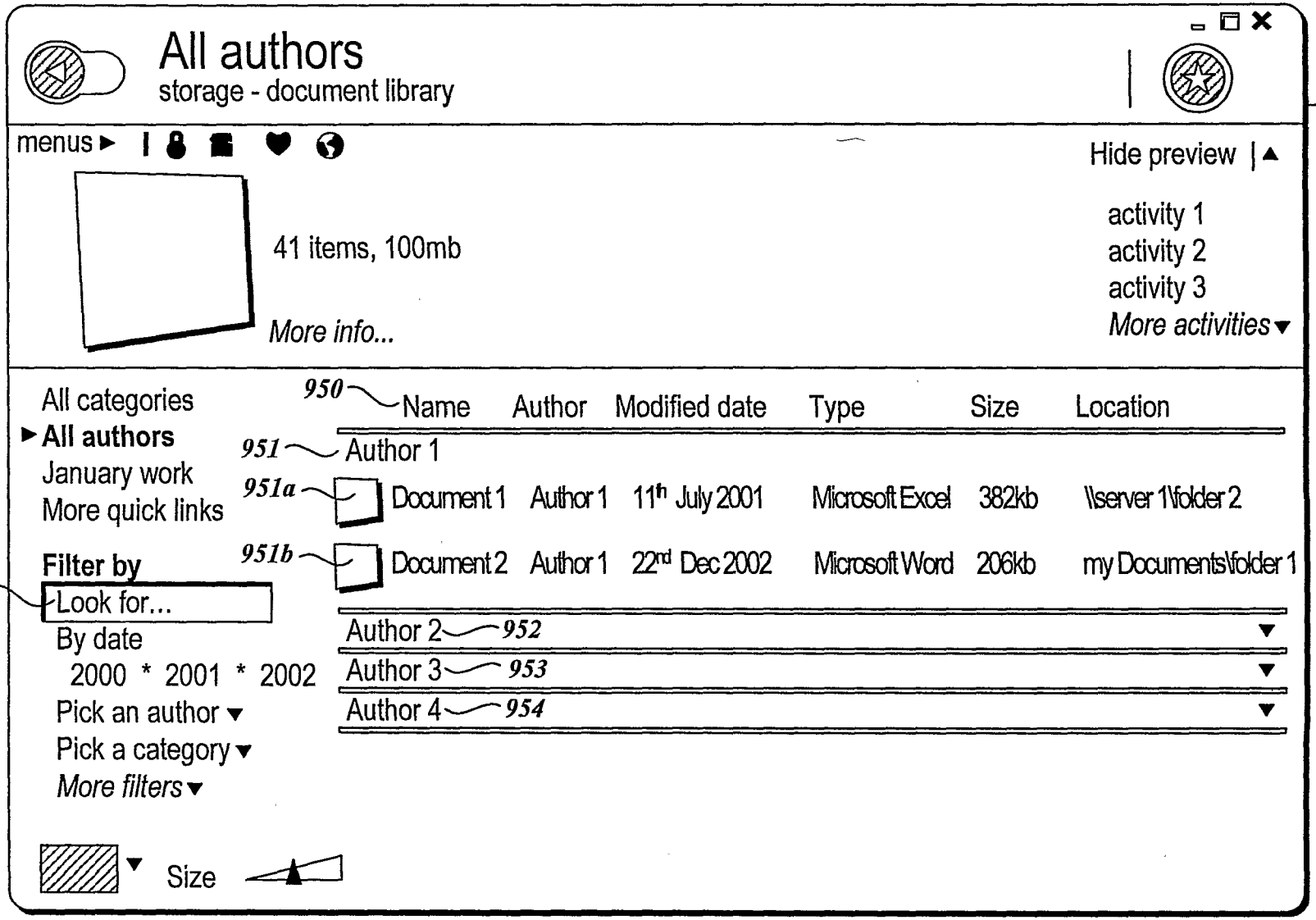

All authors
storage - document library
600
menus ▶
Hide preview ▲
41 items, 100mb
More info...
activity 1
activity 2
activity 3
More activities ▼
All categories
All authors
January work
More quick links
Filter by
611
Look for...
By date
2000 * 2001 * 2002
Pick an author ▼
Pick a category ▼
More filters ▼
950
Name
Author
Modified date
Type
Size
Location
951
Author 1
951a
Document 1
Author 1
11th July 2001
Microsoft Excel
382kb
\\server 1\folder 2
951b
Document 2
Author 1
22nd Dec 2002
Microsoft Word
206kb
my Documents\folder 1
Author 2
952
Author 3
953
Author 4
954
Size

Fig.34.

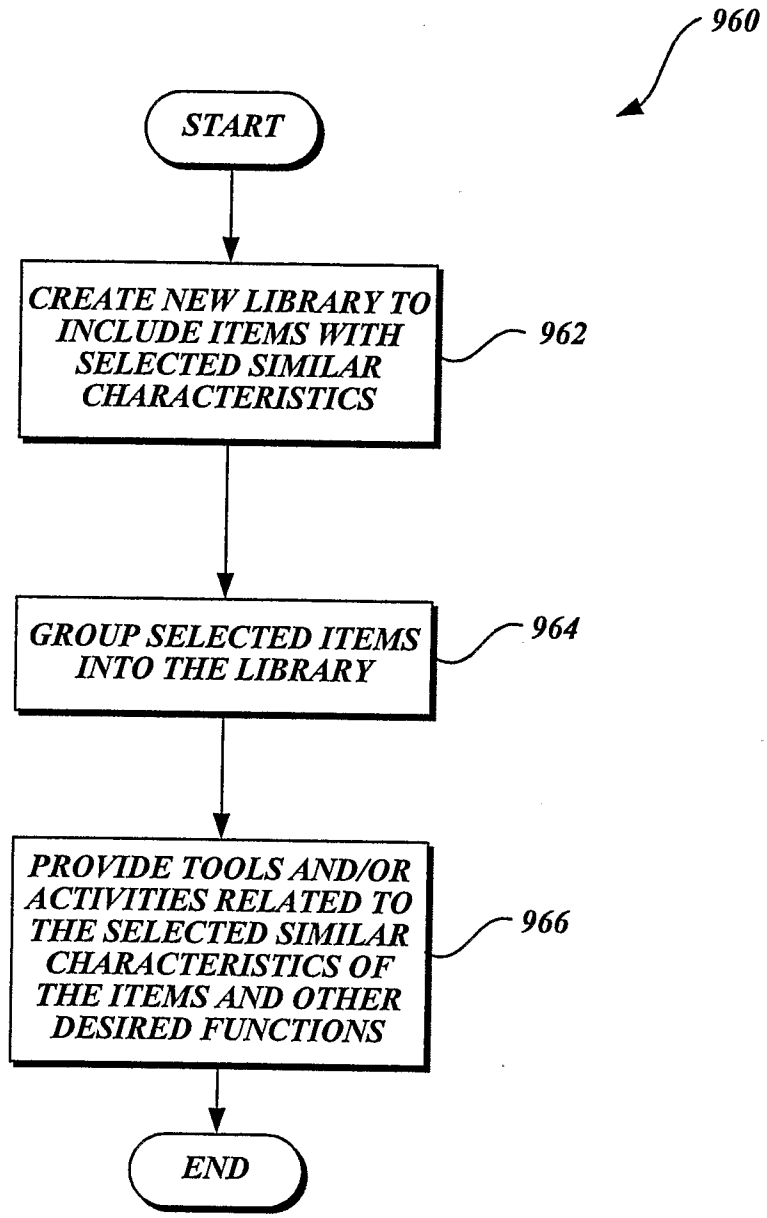

960
START
CREATE NEW LIBRARY TO INCLUDE ITEMS WITH SELECTED SIMILAR CHARACTERISTICS
962
GROUP SELECTED ITEMS INTO THE LIBRARY
964
PROVIDE TOOLS AND/OR ACTIVITIES RELATED TO THE SELECTED SIMILAR CHARACTERISTICS OF THE ITEMS AND OTHER DESIRED FUNCTIONS
966
END

Fig.35.

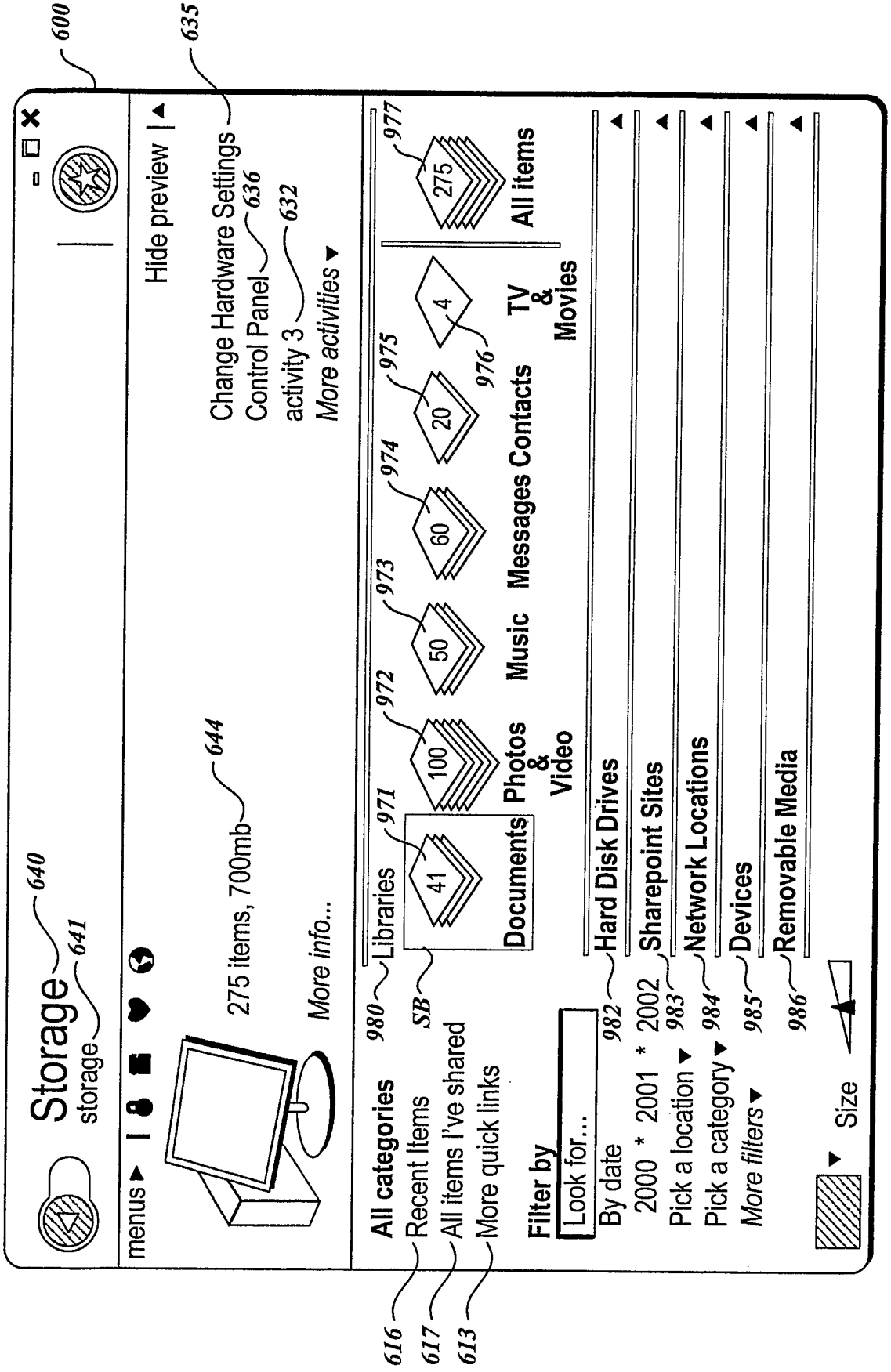

600
635
640
641
Storage
storage
menus
Hide preview
644
275 items, 700mb
More info...
Change Hardware Settings
636
Control Panel
632
activity 3
More activities
All categories
980
Libraries
971
Documents
Photos & Video
Music
Messages
Contacts
TV & Movies
All items
SB
41
100
50
60
20
4
275
972
973
974
975
976
977
616
Recent Items
617
All items I've shared
613
More quick links
Filter by
Look for...
By date
982
Hard Disk Drives
2000 * 2001 * 2002
983
Sharepoint Sites
Pick a location
984
Network Locations
Pick a category
985
Devices
More filters
986
Removable Media
Size

Fig.36.

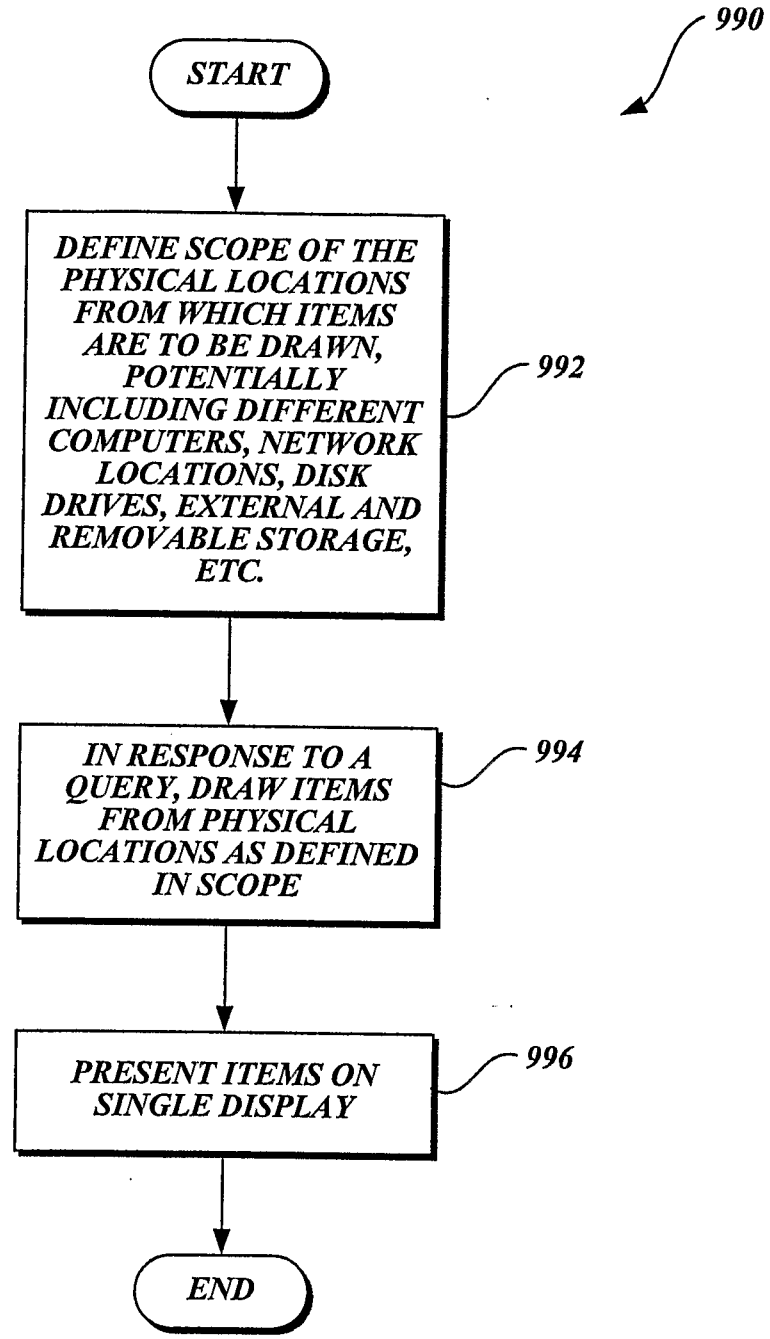

990
START
DEFINE SCOPE OF THE PHYSICAL LOCATIONS FROM WHICH ITEMS ARE TO BE DRAWN, POTENTIALLY INCLUDING DIFFERENT COMPUTERS, NETWORK LOCATIONS, DISK DRIVES, EXTERNAL AND REMOVABLE STORAGE, ETC.
992
IN RESPONSE TO A QUERY, DRAW ITEMS FROM PHYSICAL LOCATIONS AS DEFINED IN SCOPE
994
PRESENT ITEMS ON SINGLE DISPLAY
996
END

Fig.37.

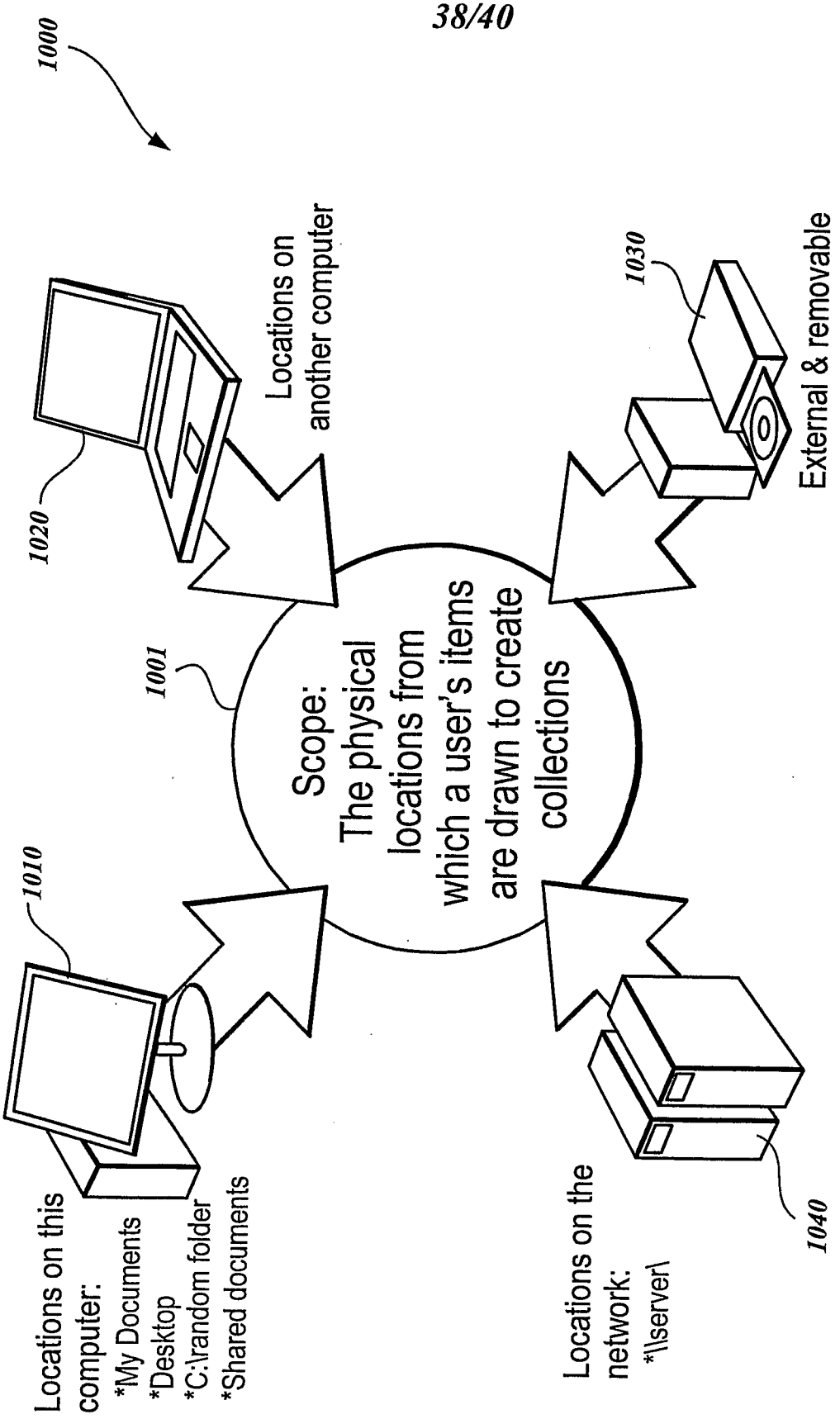

1000
1001
Scope:
The physical locations from which a user's items are drawn to create collections
1010
Locations on this computer:
*My Documents
*Desktop
*C:\random folder
*Shared documents
1020
Locations on another computer
1030
External & removable storage
1040
Locations on the network:
*\\server\

Fig.38.

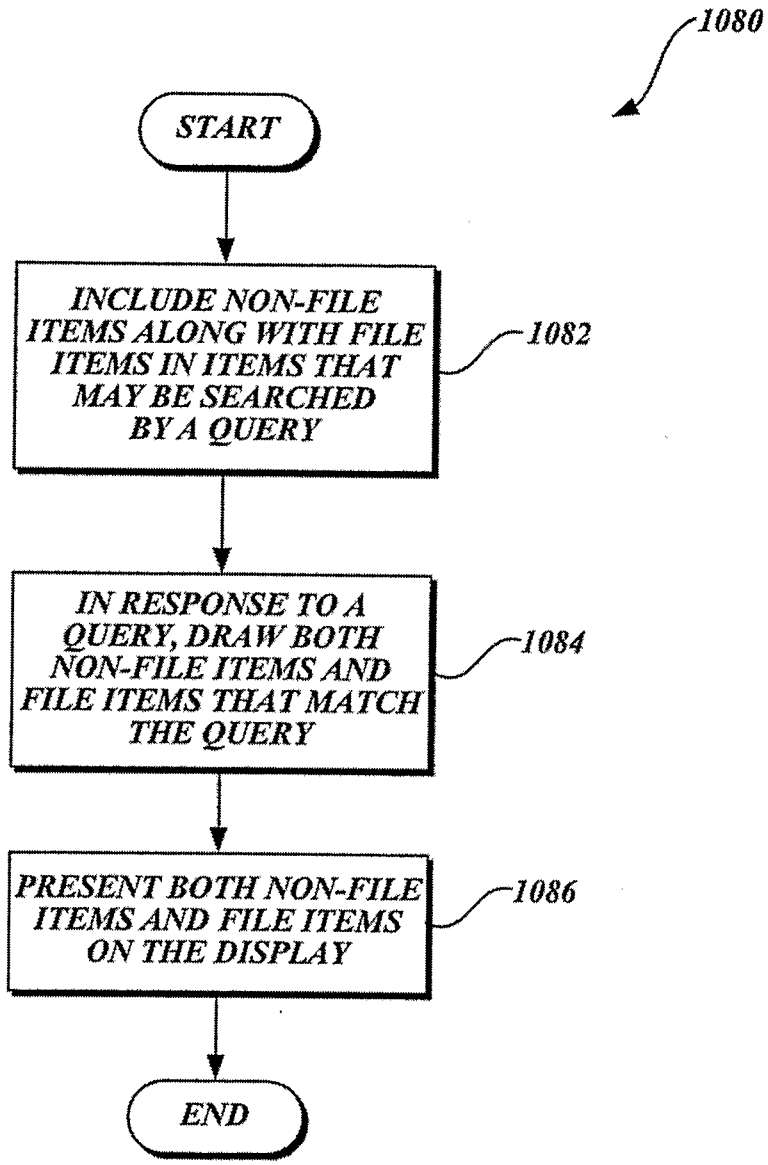

1080
START
INCLUDE NON-FILE ITEMS ALONG WITH FILE ITEMS IN ITEMS THAT MAY BE SEARCHED BY A QUERY
1082
IN RESPONSE TO A QUERY, DRAW BOTH NON-FILE ITEMS AND FILE ITEMS THAT MATCH THE QUERY
1084
PRESENT BOTH NON-FILE ITEMS AND FILE ITEMS ON THE DISPLAY
1086
END

Fig.39.

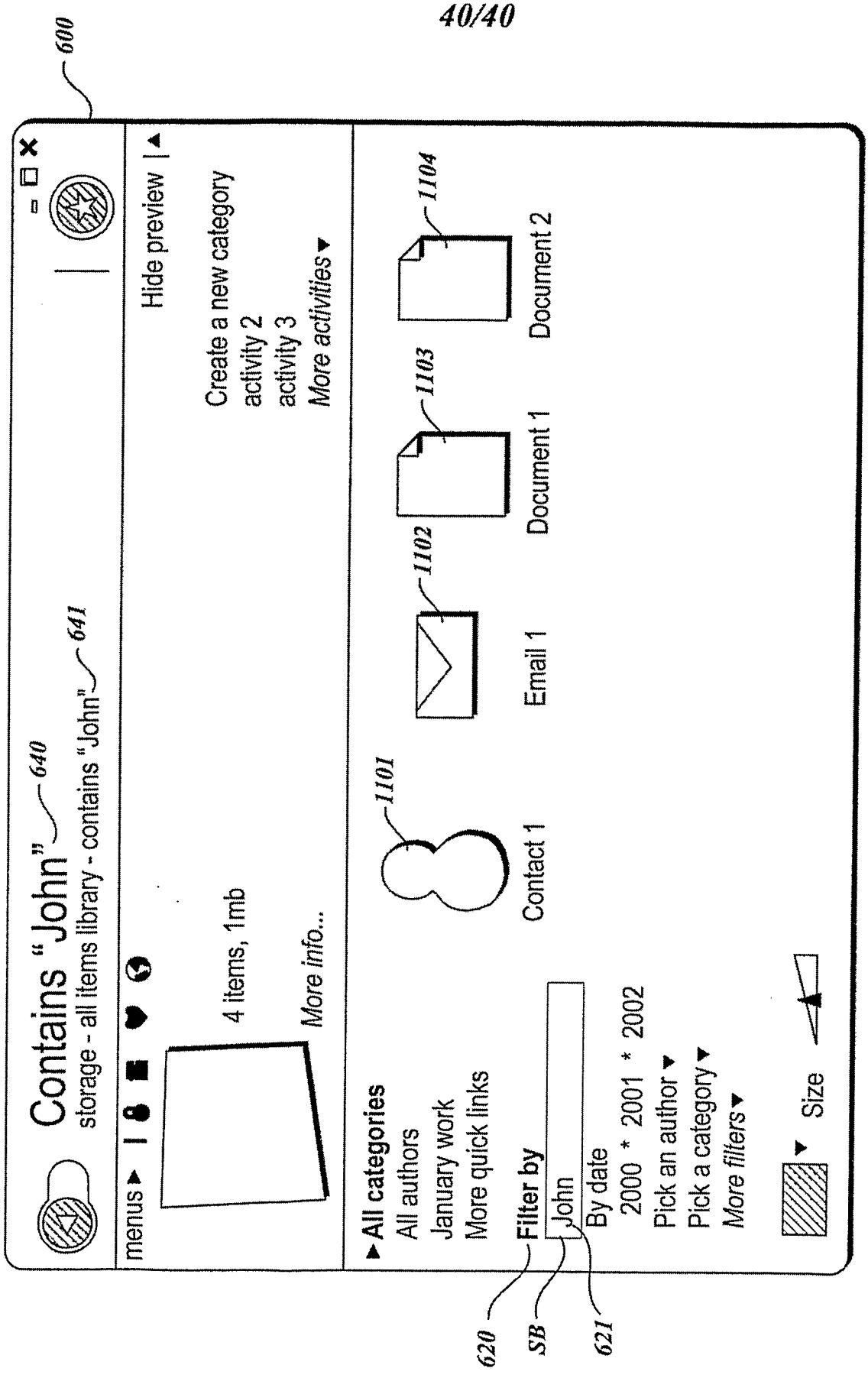

600
Contains "John"
640
storage - all items library - contains "John"
641
menus
Hide preview
4 items, 1mb
More info...
Create a new category
activity 2
activity 3
More activities
All categories
All authors
January work
More quick links
Filter by
John
By date
2000 * 2001 * 2002
Pick an author
Pick a category
More filters
Size
1101
Contact 1
1102
Email 1
1103
Document 1
1104
Document 2
620
SB
621

Fig.40.