



CLAIMS

1. A method of archiving an electronic records and documents having self organized application program running in a general purpose computer, the general purpose computer includes a display, a user input device, an archival appraisal policy module, an archival transfer module, an archival reference module, an archival preservation module a crypto module and a processor, the method comprising:

a) the archival appraisal policy module allows a user to enter master key appraisal values "retention period", "disposal action" commands associated with file reference folder using the user input device;

b) the archival transfer module automatically encrypt, packs, securely transfer archives electronic records and documents and associate files information properties to an external computer readable storage media using the user input device;

c) the archival reference module allow a user to extract, decrypt and import electronic records and documents and associate files information properties that have been archived to an external computer readable storage media back into an electronic repository management system using the user input device;

d) the archival preservation module allow a user to extract and decrypt electronic records and documents and associate file information properties that have been archived in an external computer readable storage media and output the image of the electronic records and documents and associate files information properties into microfilm format using the user input device.

2. A method of archiving an electronic records and documents as set forth in claim 1 wherein the electronic repository management system comprises a SQL database, a SQL database, and a SQL database client, the SQL database client being disposed in the general purpose computer.

3. A method of archiving an electronic records and documents as set forth in claim 1 where step (a) comprises the steps of the archival appraisal policy module allowing a user to enter master key appraisal values "retention period", "disposal action" commands associated with file reference folder using the user input device, automatically translating the command into an event.

4. A method of archiving an electronic records and documents as set forth in claim 3, wherein the archival appraisal policy module automatically obtaining the archival appraisal policy key value, and automatically passing control to an electronic repository management system.

5. A method of archiving an electronic records and documents as set forth in claim 4, wherein the archival appraisal policy module execute the issued "retention period," "disposal action" commands;



whereby the associate file reference folder in an electronic repository management system is automatically validated, appraised, enforced, and generate authentication key values “authority number,” “review date”.

6. A method of archiving an electronic records and documents as set forth in claim 5, wherein the archival appraisal policy module will generate appraised information file formats comprising at least XML (Extensible Markup Language), CENSML (Collaborative Electronic Notebook Systems Markup Language), and stored in a data storage device for the user.

7. A method of archiving an electronic records and documents as set forth in claim 6, wherein the electronic repository management system will automatically disallow user to change the associated file reference folder archival policy values on “retention period,” “disposal action” information properties.

8. A method of archiving an electronic records and documents as set forth in claim 1 where step (b) comprises the steps of the archival transfer module wherein a user select the archival transfer commands, automatically translating the command into an event, the crypto module automatically trapping the event, the crypto module automatically obtaining an encryption key value, the crypto module automatically encrypting and converting the electronic records and documents and associate files information properties into an archived information file format using the encrypting key value, a status conversion report will be generated.

9. A method of archiving an electronic records and documents as set forth in claim 8, wherein the transfer command comprises appraised policy values and enforced on the file reference folder information properties in an electronic repository management system.

10. A method of archiving an electronic records and documents as set forth in claim 8 and claim 9, wherein the method further comprising converting the electronic records and documents and associate file information properties into an archived file information format.

11. A method of archiving an electronic records and documents as set forth in claim 8 to claim 10, wherein the archived file information format content consists of electronic records and documents metadata properties, an original electronic records and documents in native format, encrypting crypto key values and an electronic records and documents in electronic print format.

12. A method of archiving an electronic records and documents as set forth in claim 12, wherein the electronic records and documents print format comprising at least PDF (Portable Document Format), TIFF (Tagged Images File Format) and stored in a data storage device.

13. A method of archiving an electronic records and documents as set forth in claim 10 to claim 12, wherein the archived information file format comprising at least XML (Extensible Markup Language), CENSML (Collaborative Electronic Notebook Systems Markup Language), and stored in a data storage device.

14. A method of archiving an electronic records and documents as set forth in claim 1 where step (c) comprises the steps of the archival reference module wherein a user select the archival reference commands, automatically translating the commands into an event, the crypto module automatically trapping the event, the crypto module automatically obtaining an encryption key value, the crypto module automatically encrypting and converting an archived information file format using the encrypting key value, and a status extraction report will be generated.

15. A method of archiving an electronic records and documents as set forth in claim 14, wherein the archived file information format content consists of electronic records and documents metadata properties, an original electronic records and documents in native format, encrypting crypto key values and an electronic records and documents in electronic print format and stored in an electronic repository management system.

16. A method of archiving an electronic records and documents as set forth in claim 15, wherein the electronic records and documents print format comprising at least PDF (Portable Document Format), TIFF (Tagged Images File Format) and stored in a data storage device.

17. A method of archiving an electronic records and documents as set forth in claim 1 where step (d) comprises the steps of the archival preservation module wherein a user select the archival preservation commands, automatically translating the commands into an event, the crypt module automatically trapping the event, the crypt module automatically retrieving a decryption key value, the crypto module automatically decrypt and extract the electronic records and documents archived information file format using the decryption key value, the result extraction value consists of PDF (Portable Document Format) file format, an electronic records and documents in native format, associate file information properties and stored in a data storage device.

18. A method of archiving an electronic records and documents as set forth in claim 17, wherein the archived information file format comprising at least XML (Extensible Markup Language), CENSML (Collaborative Electronic Notebook Systems Markup Language) and stored in a data storage device.

19. A method of archiving an electronic records and documents as set forth in claim 17 and claim 18, wherein the method further comprising converting PDF (Portable Document Format) file format and electronic records and documents associate file information properties value into TIFF (Tagged Image File Format) file format, and output the image into microfilm format.

20. A method of archiving an electronic records and documents as set forth in claim 19 wherein microfilm format comprising at least 16mm, 35mm, 105mm and stored in a microfilm data storage device.

21. A method of archiving an electronic records and documents as set forth in claim 1 wherein the electronic repository management system comprises a database, the database including an indicator of whether the file reference folder should be validated, appraised, an electronic records and documents should be encrypted or decrypted.

22. A method of archiving an electronic records and documents as set forth in claim 1 wherein the general purpose computer comprises a workstation, and there is further provided a file server, wherein the archiving appraisal policy module comprises a archival appraisal server on the workstation, the access module comprises an access server on the file server and an access client on the workstation, and the electronic repository management system comprises a database on the file server, an electronic repository management server on the file server, and an electronic repository management client on the workstation.

23. A method of archiving an electronic records and documents as set forth in claim 1 wherein the operating system includes at least part of the electronic repository management system.

24. An electronic repository management system for storing electronic documents and records from an application in a workstation and retrieving electronic documents and records from a file server to the application, the file server having a file system, the electronic repository management system comprising:

(a) an access server in the file server comprising software for handling user authentication and file system access control for the file server;

(b) an access client in the workstation comprising software for enabling a user to sign on to the file server and obtain access to the file system on the file server;

(c) an electronic repository management server in the file server comprising software for controlling an electronic repository management database and electronic repository management indexes to the electronic repository management database;

(d) an electronic repository management client in the workstation comprising software for interfacing the workstation to the electronic repository management server and thereby allowing access by a user at the workstation to the electronic repository management database; and

(e) a crypto server comprising software for automatically intercepting I/O requests by the archiving application and transparently handling encryption of the documents and decryption of encrypted documents;

wherein the access server and access client are functionally positioned between the electronic repository management server and electronic repository management client, and

the crypto server is functionally positioned between the archiving application and the electronic repository management client.

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25. An electronic repository management system as set forth in claim 24, wherein the crypto server software includes display commands, the display commands only for displaying error messages to the user.
26. An electronic repository management system as set forth in claim 25, wherein the crypto server includes interfaces to plural cryptographic systems.
27. An electronic repository management system as set forth in claim 26, the cryptographic systems comprising at least one of RSA, DES, Triple-DES, Blowfish, Triple Blowfish and IDEA.