

The Electronic Records Challenge



Computer System Security and
Privacy Advisory Board
December 3, 2002



L. Reynolds Cahoon, CIO
National Archives and Records Administration

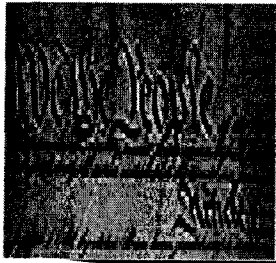


Overview



ERA
Electronic Records Archives

- **NARA: Mission**
- **The Electronic Records Challenge**
- **NARA's Vision**
- **The Electronic Records Archives System**

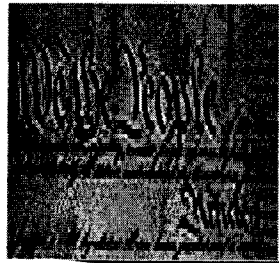


The National Archives & Records Administration



“The National Archives is a public trust on which our democracy depends. It enables people to inspect for themselves the record of what government has done. It enables officials and agencies to review their actions and helps citizens hold them accountable. It ensures continuing access to essential evidence that documents:

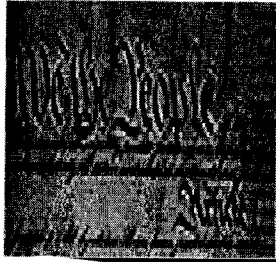
- the rights of American citizens
- the actions of federal officials
- the national experience”



NARA Strategic Goals



- 1: Essential evidence will be created, identified, appropriately scheduled, and managed for as long as needed.**
- 2: Essential evidence will be easy to access regardless of where it is or where users are for as long as needed.**
- 3: All records will be preserved in an appropriate environment for use as long as needed.**
- 4: NARA's capabilities for making changes necessary to realize our vision will continuously expand.**



Record



Documentary material of any form

- Made or received in the course of business or under law, and
- Kept because it
 - ◆ provides evidence of organization, functions, policies, decisions, procedures, operations, or other activities of their creators, or
 - ◆ contains valuable information

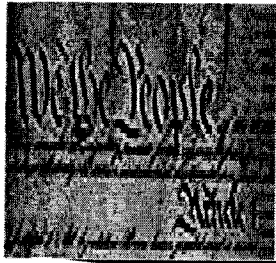


What's an Electronic Record?



ERA
Electronic Records Archives

A record in a form that requires
the use of a computer for access.



What's an Electronic Record? Digital Document?



NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

ELECTRONIC RECORD (ERA)

ERA VISION STATEMENT

GRADE	1	2	3	4	5
1	16451	17000	17547	18091	18639
2	18497	18936	19548	20068	20290
3	20181	20653	21526	22198	22870
4	22655	23410	24164	24919	25674
5	25347	26192	27037	27882	28727
6	28253	29195	30138	31080	32022
7	31397	32444	33491	34538	35584
8	34772	35931	37091	38250	39409
9	38406	39686	40966	42245	43525
10	42294	43705	45115	46525	47935
11	46469	48018	49566	51115	52663
12	50694	52350	54007	55663	57319
13	55229	58436	61644	64851	68058
14	59265	63073	66882	70690	74499
15	63060	67129	71298	75467	79636

NARA U.S. NATIONAL ARCHIVES & RECORDS ADMINISTRATION

- WELCOME
- ABOUT US
- RESEARCH ROOM
- RECORDS MANAGEMENT
- RECORDS CENTER PROGRAM
- FEDERAL REGISTER
- NHPRC & OTHER GRANTS
- EXHIBIT HALL
- DIGITAL CLASSROOM
- RECORDS OF CONGRESS
- PRESIDENTIAL LIBRARIES
- SEARCH
- SITE INDEX

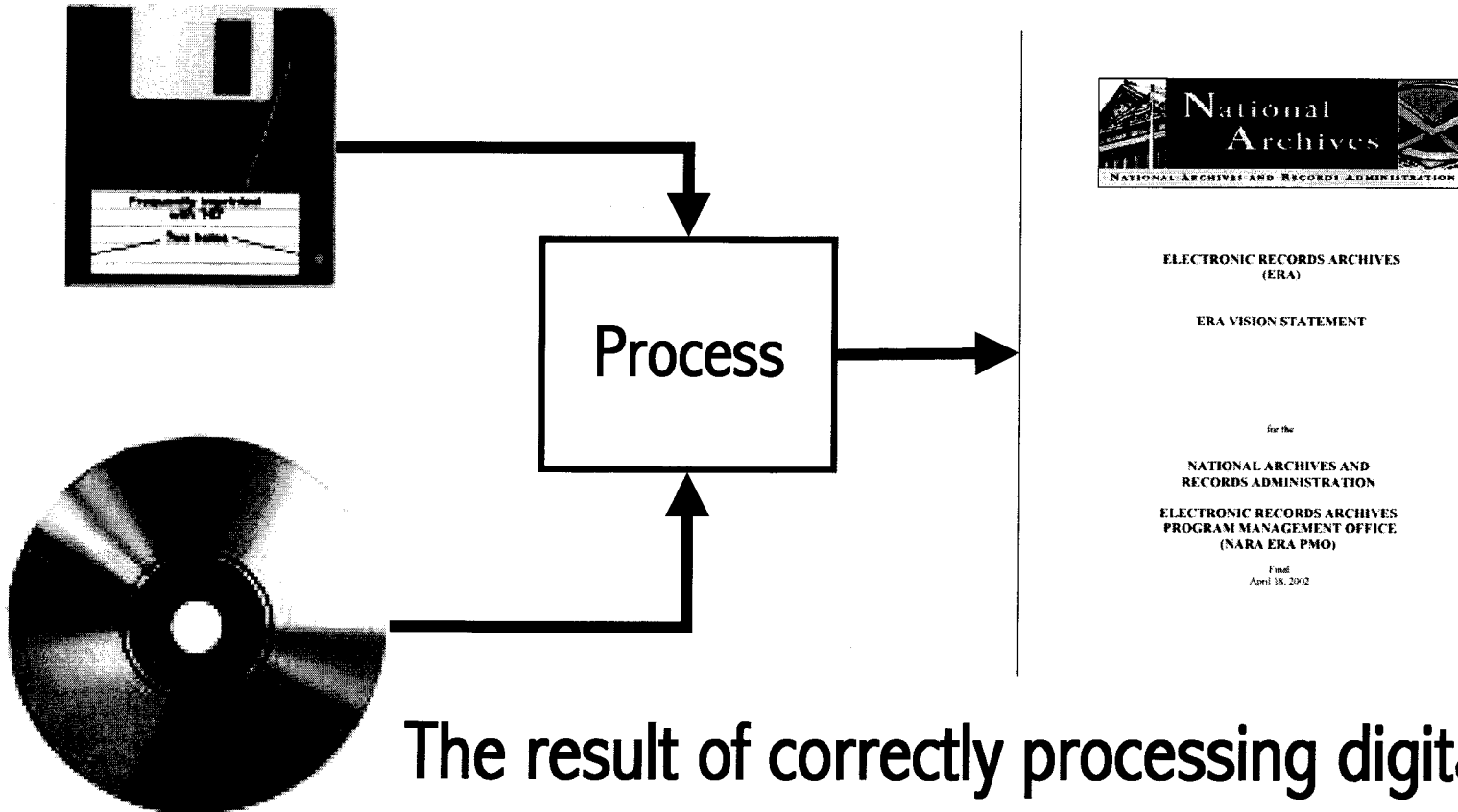
"The ties that bind the lives of our people in one indissoluble union are perpetuated in the archives of our government"

CONTACT NARA | ACCESSIBILITY | PRIVACY & USE

In a recordkeeping context

What's an Electronic Record?

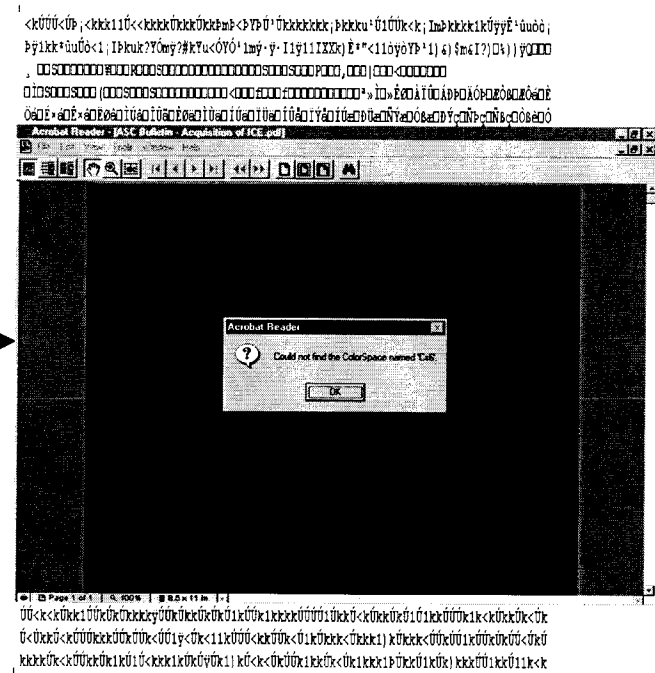
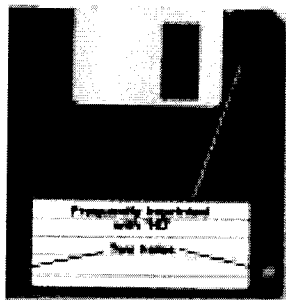
ERA
Electronic Records Archives



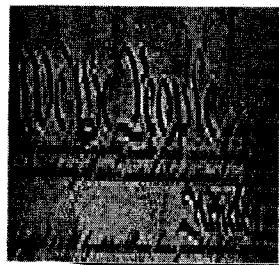
The result of correctly processing digital data maintained in a recordkeeping context



An electronic record requires computer processing

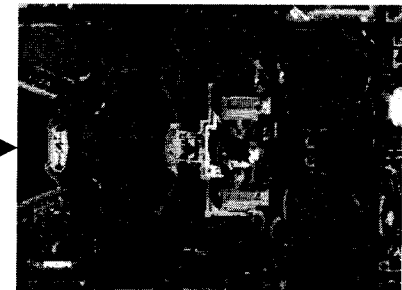
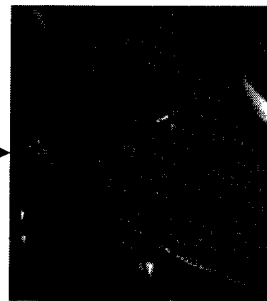
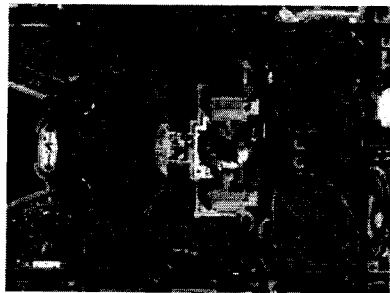


If something goes wrong in the process, the authentic record is not retrieved.



The Challenge:

Preserving an Electronic Record



The process of preserving an electronic record is complete only when the record is reproduced

Goddard Space Flight Center
Scientific Visualization Studio
Image: zoomDCstill.tif
01/04/2001

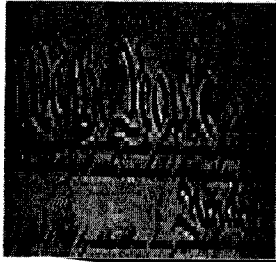




NARA's Electronic Records Challenge



- Preserve any type of record,
- Created using any type of application,
- On any computing platform,
- From any entity in the Federal Government and any donor.
- Provide discovery and delivery to anyone with an interest and legal right of access,
- Now and for the life of the republic



A Tidal Wave is Coming



Clinton Administration

- ◆ 40 million email messages

State Department

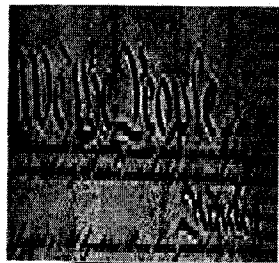
- ◆ 25 million electronic diplomatic messages

Department of Defense

- ◆ 54 million images from electronic official military personnel files annually

Census Bureau

- ◆ 600 to 800 million image files (2000 census)



The Challenge: Variety

(examples from NARA's current holdings)



- White House e-mail from President's Reagan, Bush, and Clinton
- Casualty records from the wars in Korea and Vietnam
- The American Soldier in World War II
- National Collaborative Perinatal Project, 1959-1974
- Fishing, Hunting, & Wildlife Recreation
- Abstracts of testimony, interviews, diaries from the Watergate Special Prosecution Force
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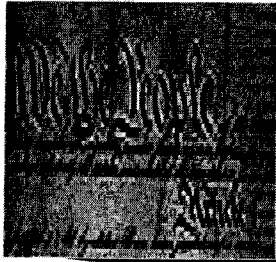


The Challenge: Complexity



ERA
Electronic Records Archives

- Databases
- Geographic Information Systems
- Web sites
- Digital Photographs
- Computer Assisted Engineering Drawings
- Virtual Reality Models
- ? ? ? ?



NARA's Vision



The Electronic Records Archives will authentically preserve and provide access to any kind of electronic record, free from dependency on any specific hardware or software, enabling NARA to carry out its mission into the future.

What is the ERA system?

An Open Archival Information System



Producer

Submission
Information
Packages

OAIS
Archival
Information
Packages

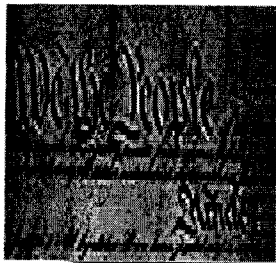
Dissemination
Information
Package

Consumer

Query

Response

Order



NARA's Strategic Response - ERA

ERA Requirements



➤ Persistent

- ◆ To manage and access the records over time.

➤ Authentic

- ◆ To ensure that these are the original records
- ◆ Records that are created with attached documentary information

➤ Scalable

- ◆ To grow and adapt to increasing volumes and evolving types of electronic records
- ◆ To serve a variety of user groups



What is the ERA system? (Virtual Workspaces)

