

# The Electronic Records Challenge



Computer System Security and  
Privacy Advisory Board  
December 3, 2002



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National Archives and Records Administration

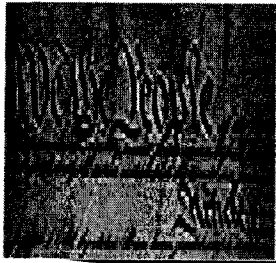


# Overview



ERA  
Electronic Records Archives

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

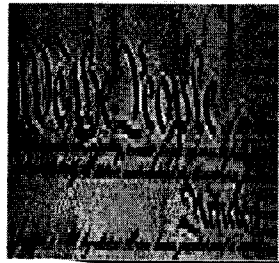


# The National Archives & Records Administration



**“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:**

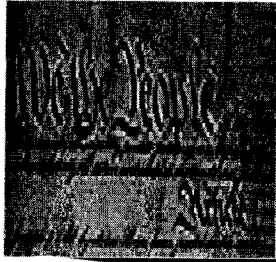
- the rights of American citizens**
- the actions of federal officials**
- the national experience”**



# 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

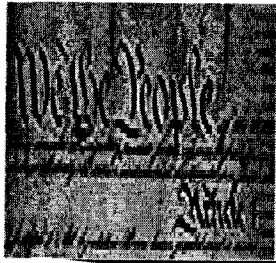


# What's an Electronic Record?



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



# What's an Electronic Record? Digital Document?



Acrobat Reader - [ERA DC VS 1.0.pdf]  
File Edit Document View Window Help

Microsoft Excel - FY 02 Personnel.xls  
File Edit View Insert Format Tools Data Window Help

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	55029	56836	58644	60451	62258
14	59465	61373	63282	65191	67100
15	64001	66020	68039	70058	72077

NARA | US National Archives & Records Administration - Netscape  
File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Help

Bookmarks Location: <http://www.archives.gov/>

Where to...? How Do I...?

## 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"*

The National Archives EXPERIENCE *17th Century* SUPPORT National Archives FIRST GOV

Contact NARA Accessibility Privacy & Use

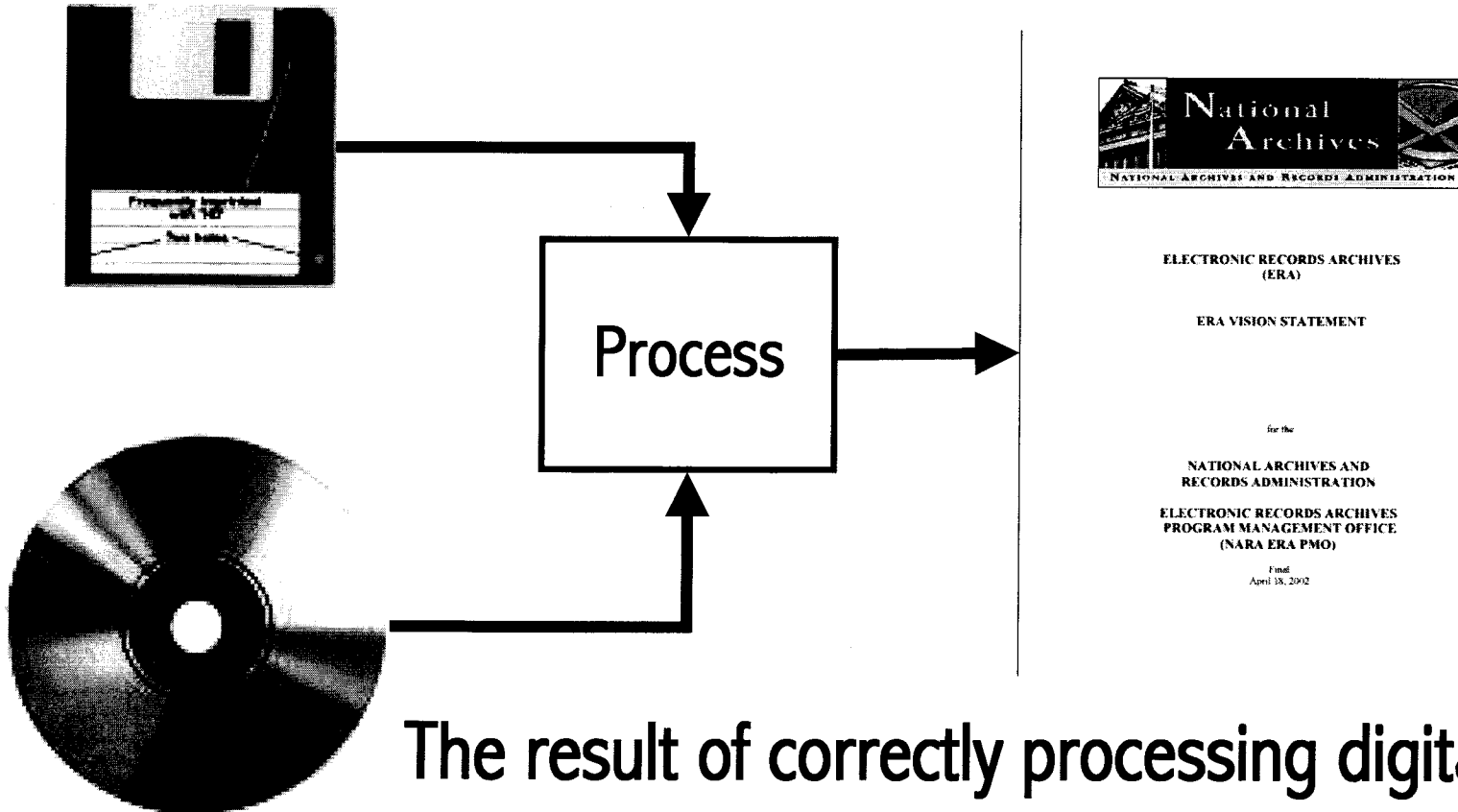
Document: Done

ELECTRONIC RECORD (ERA)  
ERA VISION STATE

In a recordkeeping context

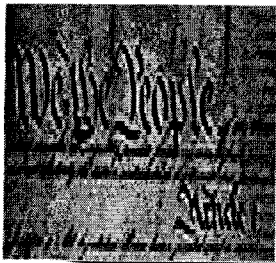
# What's an Electronic Record?

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Electronic Records Archives

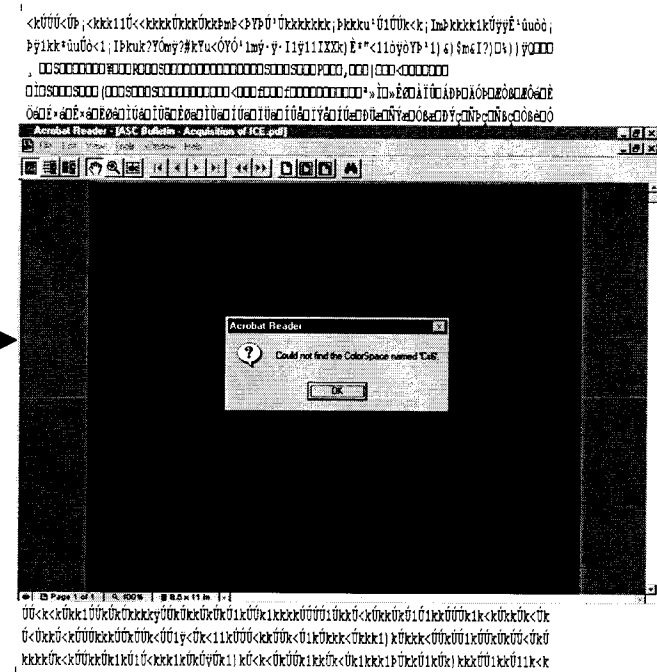
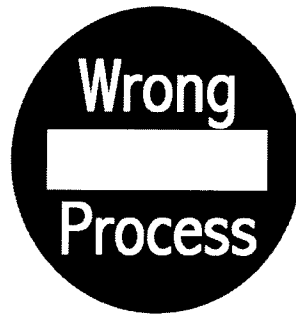
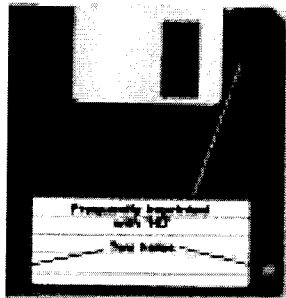


The result of correctly processing digital data maintained in a recordkeeping context

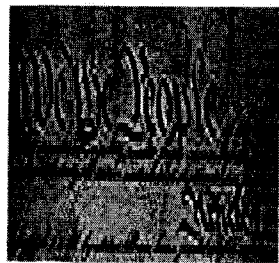




# An electronic record requires computer processing

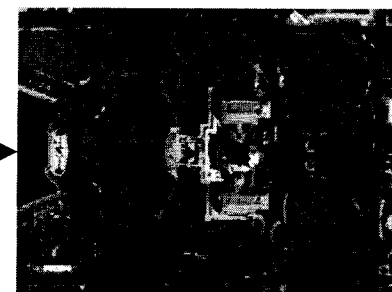
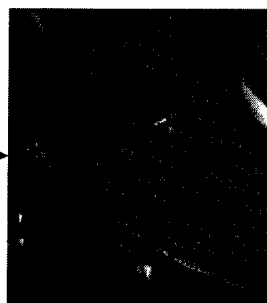


If something goes wrong in the process, the authentic record is not retrieved.



# 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

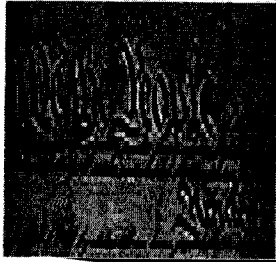




# NARA's Electronic Records Challenge



- 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

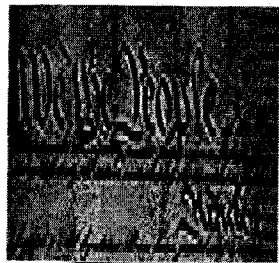
- ◆ 25 million electronic diplomatic messages

## 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
- • • • • •

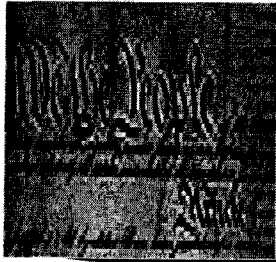


# The Challenge: Complexity



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Electronic Records Archives

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



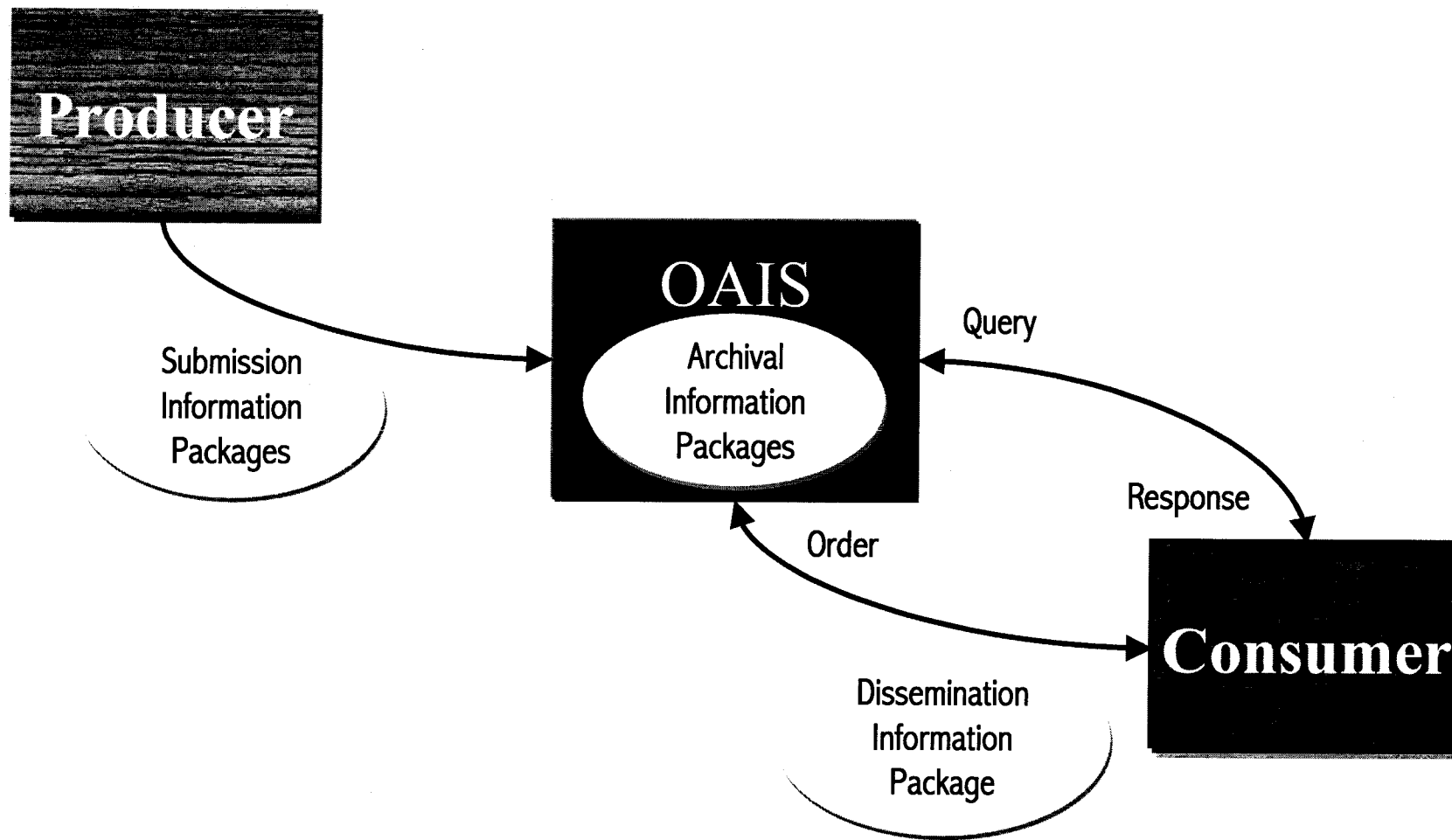
# NARA's Vision



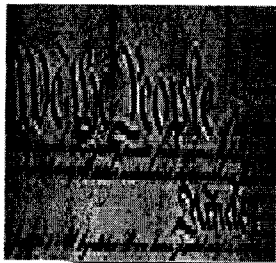
**The Electronic Records Archives will authentically preserve and provide access to any kind of electronic record, free from dependency on any specific hardware or software, enabling NARA to carry out its mission into the future.**

# What is the ERA system?

## An Open Archival Information System







# 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)

