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# Processing born-digital collections with FRED

Zachary Maiorana, Schlesinger Library

Digital Preservation Coalition

June 18, 2024



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# FRED and me



μFRED  
**\$5,099.00**



FRED Forensic  
Workstation  
**\$6,899.00**



FRED L  
Forensic Laptop  
**\$7,324.00**



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# FRED at Schlesinger



FRED and FTK showing a  
1998 pfs:Write document  
from Papers of Bill Baird  
(MC 831)

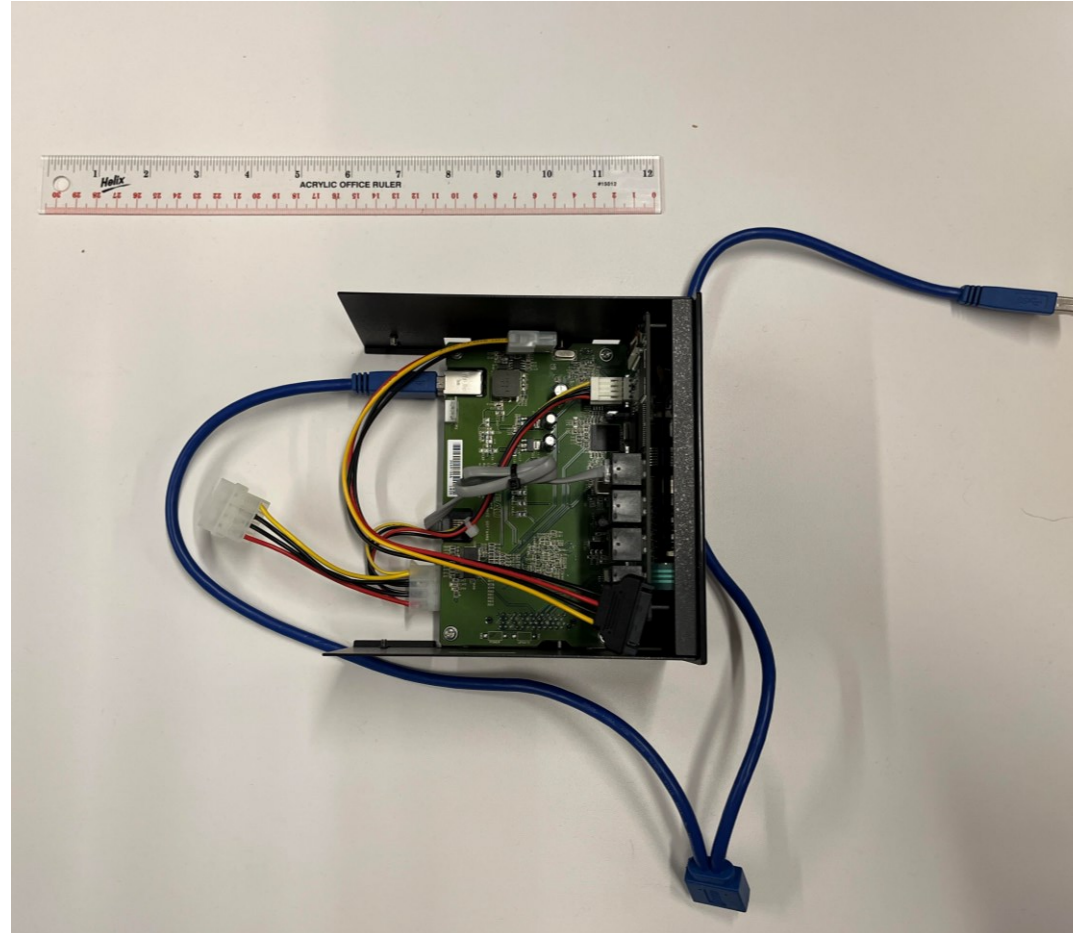


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# Forensic technology

Uninstalled Ultrabay 3D  
write-blocker viewed  
from above





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# Workflow

Same Baird case  
viewed via Remote  
Desktop Connection

Forensic Toolkit Version: 7.6.0.618 Database: 20240313 Case: Data-169\_Baird\_zm

File Edit View Evidence Filter Tools Manage Help

Filter: Bookmarked Filter Manager...

Explore Overview Email Graphics Video Internet Mobile Data Bookmarks Live Search Index Search System Summary

Case Overview File Content

Hex Text Filtered Translation Natural

EMERGENCY PROTOCOL

- 1) Medical assistant sounds emergency alarm located in room on the wall in the procedure room.
- 2) Under no circumstances does medical assistant leave patient by herself.
- 3) R.N. turns recovery room over to assistant nurse, R.N. goes to procedure room where alarm sounded, CPR initiated if necessary.
- 4) Physician goes to procedure room if not already there.
- 5) Medical assistant will obtain crash cart, gomco suction machine, defibrillator and oxygen equipment - equipment taken to scene of emergency.
- 6) At sounding of emergency alarm, medical assistant will go to scene of emergency to assist physician and R.N.
- 7) If so ordered by the physician, nursing assistant will notify 911 to respond to an emergency, and send an ambulance to transport the patient to the nearest hospital, University Hospital at Stony Brook. A medical assistant will stand at the back door to direct paramedics and ambulance attendants to the emergency.
- 8) Physician, R.N. and medical assistant will perform whatever measures necessary to maintain life until the patient is transported to the hospital. Any action taken will be under the direction of a physician.
- 9) Physician and administrator will proceed to the hospital with the patient. R.N. will return to the recovery room and assume responsibility for proper functioning of the center.

File Content Properties Hex Interpreter

File List

Item #	Name	Ext	Category	Label	Path	Created	Modified	Accessed	MDS	P-Size	L-Size	Author	Last Sa...
134012	OHARE	<missin...	Professional Write 2.0		Data-169_128.001\NON...	7/20/1998 4:05:31 PM ...	9/3/1993 6:42:28 AM ...	7/20/1998	537fd5...	4608 B	4566 B		
112004	o.doc	doc	Microsoft Word 2000		Data-169_108.001\NON...	6/1/2002 8:28:07 PM (...	6/1/2002 8:28:12 PM ...	8/7/2002	42eb82...	44.00 KB	44.00 KB	Bill Baird	Bill Baird
154004	o.doc	doc	Microsoft Word 2000		Data-169_145.001\NON...	8/27/2002 6:11:10 PM ...	6/29/2003 11:08:46 ...	9/4/2003	5c3d90...	133.5 KB	133.5 KB	Bill Baird	William ...
83010	o.doc	doc	Microsoft Word 2000		Data-169_080.001\NON...	4/6/2002 4:20:39 PM (...	4/6/2002 4:20:39 PM ...	4/6/2002	49ba79...	44.00 KB	44.00 KB	Bill Baird	Bill Baird
197219	OBSCENE.DOC	doc	Microsoft Word 6.0		Data-169_190.001\Partt...	n/a	8/6/1996 1:01:36 PM ...	6/8/1998	a055dd...	12.00 KB	11.50 KB	John Doe	kspry
193023	OFFICEPO	<missin...	Professional Write 2.0		Data-169_182.img\NONA...	n/a	3/15/1995 9:59:00 A...	7/20/1998	cc7ef5...	15.50 KB	15.46 KB		
4104	ORAL ARGUMENT OF ROEBDOE .doc	doc	Microsoft Word 2000		Data-169_003.iso\02061...	12/15/2001 6:13:22 P...	12/15/2001 6:13:22 P...	n/a	a6ff59...	233.5 KB	233.5 KB	Valued Gateway Client	Valued ...
1057	ORALAR~1.DOC	doc	Microsoft Word 2000		Data-169_001.iso\02061...	12/15/2001 6:13:22 P...	12/15/2001 6:13:22 P...	n/a	a6ff59...	233.5 KB	233.5 KB	Valued Gateway Client	Valued ...
5055	ORALAR~1.DOC	doc	Microsoft Word 2000		Data-169_004.iso\01122...	12/15/2001 6:13:22 P...	12/15/2001 6:13:22 P...	n/a	a6ff59...	233.5 KB	233.5 KB	Valued Gateway Client	Valued ...
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191018	OURPOLIC	<missin...	Professional Write 2.0		Data-169_181.img\NONA...	n/a	9/2/1993 8:11:42 AM ...	7/20/1998	12c249...	2560 B	2271 B		
197209	OUTLIN~1.DOC	doc	Microsoft Word 6.0		Data-169_190.001\Partt...	n/a	10/26/1997 4:27:02 P...	6/8/1998	3bcf1c...	20.00 KB	18.50 KB	Bill Baird	Bill Baird
1058	OUTPAT~1.DOC	doc	Microsoft Word 2000		Data-169_001.iso\02061...	12/31/2001 2:30:42 P...	12/31/2001 2:30:42 P...	n/a	330e3...	1275 KB	1275 KB	Valued Gateway Client	Valued ...

Loaded: 658 Filtered: 658 Total: 7,900 Highlighted: 1 Checked: 0 Click to update size

Data-169\_182.img\NONAME [FAT12]/[root]/OFFICEPO

Overview Tab Filter: [None]

Ready

Type here to search

3:57 PM 6/14/2024



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# Do we need a FRED?

## Device specifications

### FRED (X299 Sage)

Device name	RADWHWKS3990071
Processor	Intel(R) Core(TM) i9-7900X CPU @ 3.30GHz 3.31 GHz
Installed RAM	64.0 GB (63.7 GB usable)
Device ID	d053454d-0fee-49fb-8071-b34628e00a94
Product ID	00330-80000-00000-AA825
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

Rename this PC

FRED processor and  
RAM specs

## Device specifications

Device name	RAD-SCHLES3051S
Full device name	RAD-SCHLES3051S.university.harvard.edu
Processor	Intel(R) Core(TM) i7-10700 CPU @ 2.90GHz 2.90 GHz
Installed RAM	32.0 GB (31.7 GB usable)
Device ID	f330eaa7-90ee-4790-88ef-f1cdc4044561
Product ID	00330-80000-00000-AA887
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

Copy

Rename this PC

Ginger processor and  
RAM specs

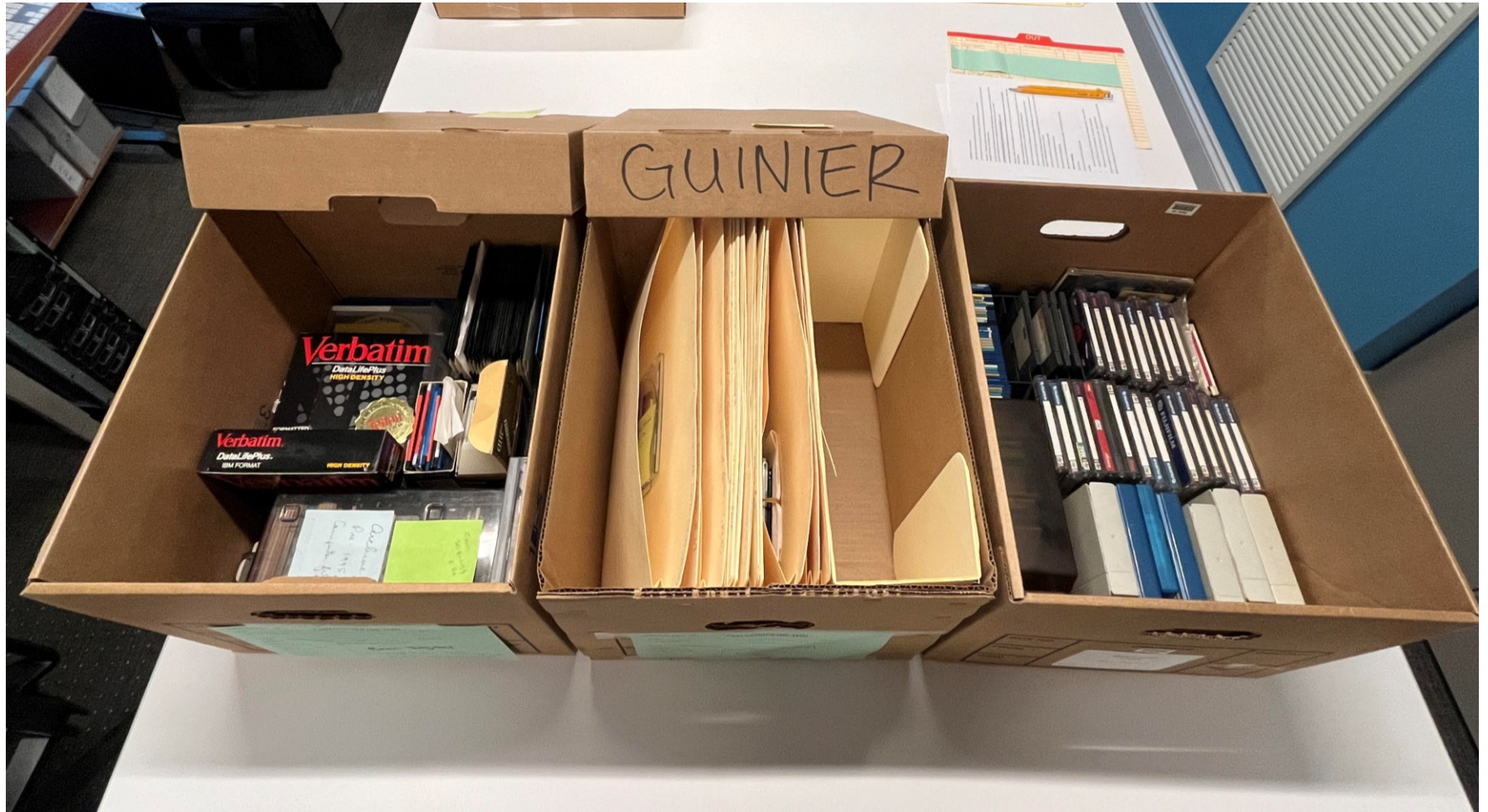


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# Processing with FRED, FTK

Disks for tracking and  
imaging from the  
Papers of Lani Guinier  
and the Papers of  
Madhur Jaffrey





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# Preservation and access

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PREMIS for preservation bag

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      <premis:formatVersion>2b</premis:formatVersion>
    </premis:formatDesignation>
    <premis:formatRegistry>
      <premis:formatRegistryName>PRONOM</premis:formatRegistryName>
      <premis:formatRegistryKey>fmt/477</premis:formatRegistryKey>
    </premis:formatRegistry>
  </premis:format>
  <premis:creatingApplication>
    <premis:creatingApplicationName>GPL Ghostscript 10.00.0/UnknownApplication</premis:creatingApplicationName>
    <premis:dateCreatedByApplication>2024-06-12T10:44:22-04:00</premis:dateCreatedByApplication>
  </premis:creatingApplication>

```

PREMIS for converted, post-processed PDF access object