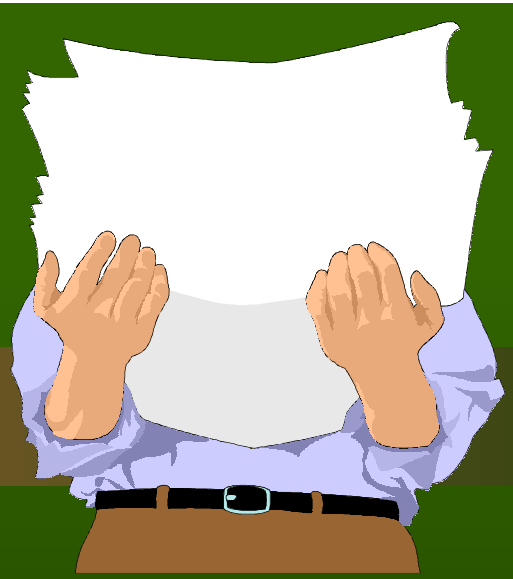


Virginia News Archive

or

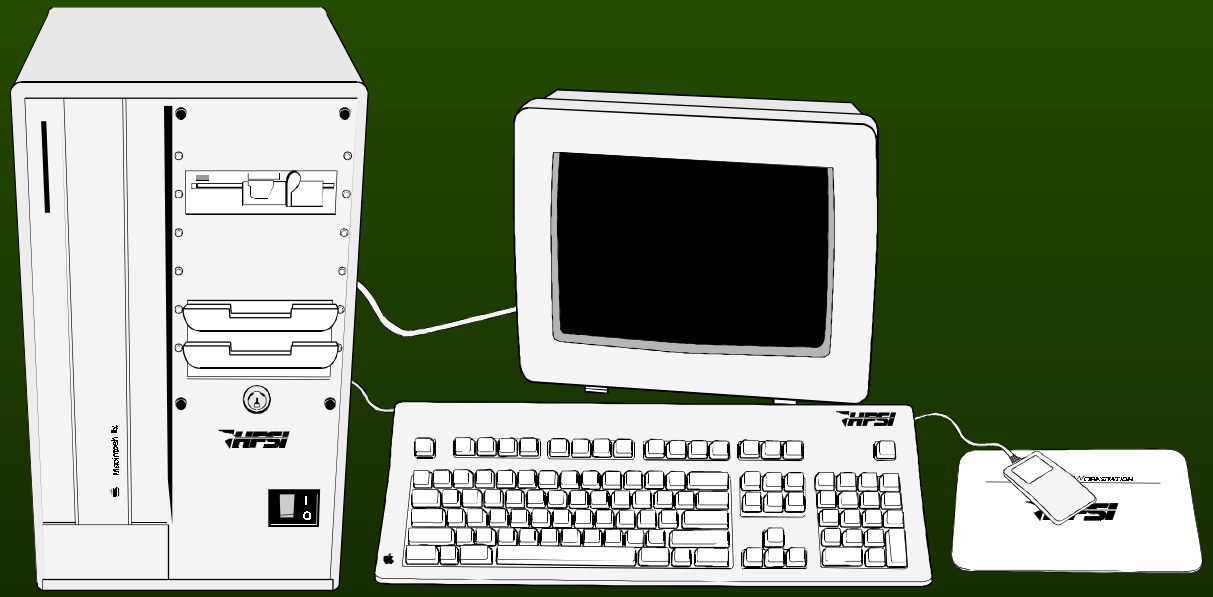
building a resource with almost no staff

SCP Servers and Data

Scholar	Scholar2	Scholar3	Scholar4
Electronic Journals/ Research Data	Digital Images	Electronic Newspapers (VA-Pilot)	Electronic Newspapers (ROA Times and Spectrum)
Library and VT Publications	Special Collections Projects	WDBJ-7 script/ photo archive	Library Publications
Electronic Theses and Dissertations	Art and Architecture Projects	Project backup server	
Main Project home page			
http://scholar.lib.vt.edu/	http://scholar2.lib.vt.edu/	http://scholar3.lib.vt.edu/	http://scholar4.lib.vt.edu/

Why so many servers?

- Improved performance
- Better security
- Less chance of the entire project going down



Electronic Newspapers

- Full text searchable/browsable
- HTML format - compatible with all web browsers
- Updated nightly
- Available 24 hours a day
- No access restrictions

What newspapers do we publish?

- Roanoke Times
  - 

- Virginian-Pilot
  - 

- Virginia Tech Spectrum
  - 

How do we get an issue?

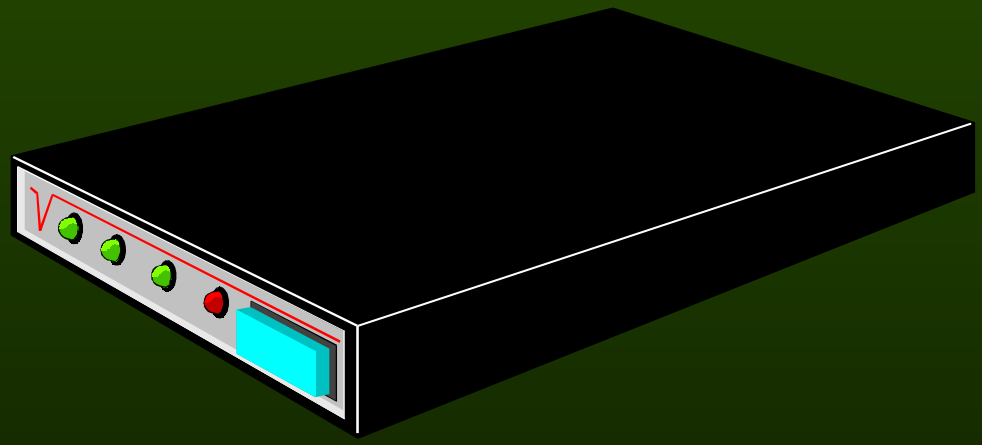
Both the Roanoke Times and Virginian Pilot maintain an in-house full text database called VU/TEXT. VU/TEXT is not networkable but is accessible via dial-up.

```
 A. headline.1
 DOC   DATE   FREQ LINES  DB  HEADLINE
================================================================================
   1 08/11/96    0   161 cur  RAMBLING THE BACK ROADS OF UNSCRUBBED NEW MEXICO
   2 08/11/96    0   139 cur  NAPA VALLEY WINEMAKERS DRINK IN SUCCESS
   3 08/11/96    0    83 cur  ATMS ARE ABOUT TO GET A LOT SMARTER
   4 08/11/96    0    83 cur  EMERGENCY BABY SITTERS SAVE DAY FOR EMPLOYEES
   5 08/11/96    0    73 cur  RICHMOND PACKAGING PLANT KEEPS TURNING OUT LITTLE
   6 08/11/96    0    79 cur  EXPERIENCE IS CRUCIAL WHEN LOOKING FOR A HIGHER S
   7 08/11/96    0   129 cur  LONG-AIRDOX NAMES PLANT MANAGER
   8 08/11/96    0   476 cur  GUIDE TO APARTMENT LIVING
   9 08/11/96    0    25 cur  UNHERALDED HEROES
  10 08/11/96    0    67 cur  SISTER'S CALL TO TEACH A GODSEND FOR MANY
  11 08/11/96    0    68 cur  ROANOKE COULDN'T BE BUILT WITHOUT INSPECTOR SMITH
  12 08/11/96    0    72 cur  MR. MARKET BUILDING IS THE LUNCH RUSH
  13 08/11/96    0    67 cur  GIVE HER AN A FOR MAKING SURE KIDS REACH SCHOOL
  14 08/11/96    0    65 cur  PHARMACIST DISPENSES MORE THAN MEDICINE
  15 08/11/96    0    65 cur  PLANNER'S JOB IS KIDS' PLAY (AND ADULTS', TOO)
  16 08/11/96    0    67 cur  THEY WROTE THE BOOK ON INFORMATION GATHERING
================================================================================
 60 Docs                                                          Pg 1 of 4

Type first letter of feature OR type help for list of commands
FIND  S-DB  DB  OPT  SS  WRD  QUIT
```

Automated Dial-up

- Initially, searches were performed by a person who dialed up their service, logged in and captured an issue each day.
- Now, automated scripts dial up during off-peak hours to retrieve an issue.



Retrieving an issue

- First, the script dials the modem, and logs in
- Next, it performs a search for all articles published on a certain day using the VU/TEXT *find* (dd/mm/yy) command
- All articles are then “printed” to the screen and simultaneously captured in a single text file.

Tagging an Issue

- As with the retrieval process, we started out using real people who tagged an issue manually.
- This is a labor-intensive process as the typical issue is 60-80 articles per day!
- Header information proved to be the key to automating markup.

VU/TEXT Article Header

- The article header can vary but the three fields essential for automated processing (section, tag, date) are always present:

ROANOKE TIMES
Copyright (c) 1996, Roanoke Times

DATE: Sunday, August 4, 1996 TAG: 9608050001
SECTION: CURRENT PAGE: NRV15 EDITION: NEW RIVER
COLUMN: Claws & Paws
SOURCE: JILL BOWEN

Raw text to HTML: rt_txt2html

- We developed a Perl script which recognizes and “decodes” article headers and splits an issue capture file into individual articles:

```
Printing ...
Printing ...
Press [RETURN] to continue or type q to return to Menu:
 cur       WHITE-COLLAR WORKERS TRY THE SELLING LIFE ON FOR SIZE       02/11/96
==========================================================================
                          ROANOKE TIMES
                  Copyright (c) 1996, Roanoke Times

DATE: Sunday, February 11, 1996              TAG: 9602090022
SECTION: BUSINESS                 PAGE: G1   EDITION: METRO
SOURCE: TRIP GABRIEL THE NEW YORK TIMES

          WHITE-COLLAR WORKERS TRY THE SELLING LIFE ON FOR SIZE

   To sell vitamins and shampoo to friends and neighbors, Sharon Killion
```

Building an Issue

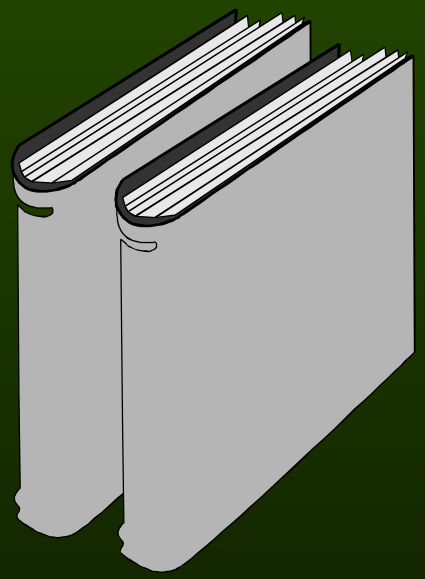
- As each article is extracted, a line is added to Section index file (e.g. SPORT.html for the Sports Section).
- Each new section is added to the issue index file: index.html.
- Each article is written to a file named after the TAG field, which is a unique identifier in VU/TEXT.

Tagging an Article

- The script retains the header as a single block and tags it with the HTML preformatted text tag <PRE>
- The script identifies the article title by its proximity to the header and a blank line between it and the article body. It makes the title a level 1 heading <H1>
- Finally, the script assumes each indented line it encounters represents a new paragraph tags it with a paragraph tag <P>

Archiving the Results

- The completed index.html, section index files and article files are placed into a single directory
- This directory is moved to the issues/19xx subdirectory under the web server and the issue is then publicly available



Indexing

- Depending on the paper, the archive is indexed with WAIS or Excite
- We are migrating all our newspapers to Excite because
  - the entire archive can be indexed (WAIS forces us to index each year separately)
  - the search interface is more flexible
  - many experts consider Excite to be one of the best search engines currently available
  - Commercial quality software at a great price: free

Reindexing

- WAIS is quite slow. It takes 28-32 hours to reindex a year of the Virginian-Pilot.
- Excite can reindex FIVE YEARS in 5 hours. This is because:
  - Excite is faster
  - Its index is smaller
  - The server is a dual-processor Pentium

Virginia Tech Spectrum

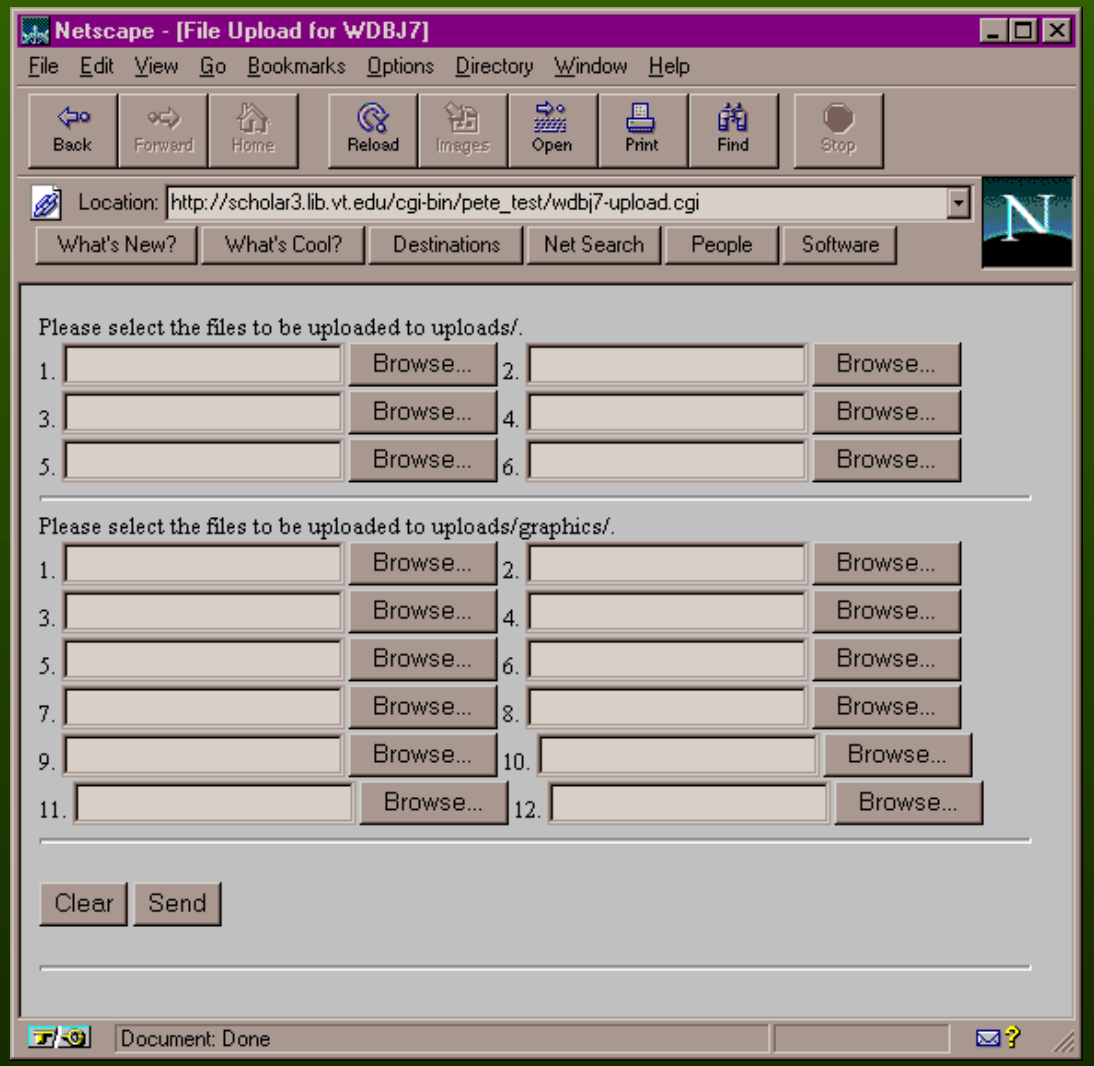
- The Spectrum requires more human intervention but some steps have been automated.
- Issues are delivered via Appleshare as RTF files.
- Mac rtftohtml is used to convert each article to HTML.
- An index file pointing to all articles is created manually.

WDBJ-7 Script/Image Archive

- Completely automated
  Upload, Cleanup, Markup, Archival, WAIS
- Full search and browsing capability
- Low to no maintenance
- Intuitive interface
- Ease of use by WDBJ-7 staff

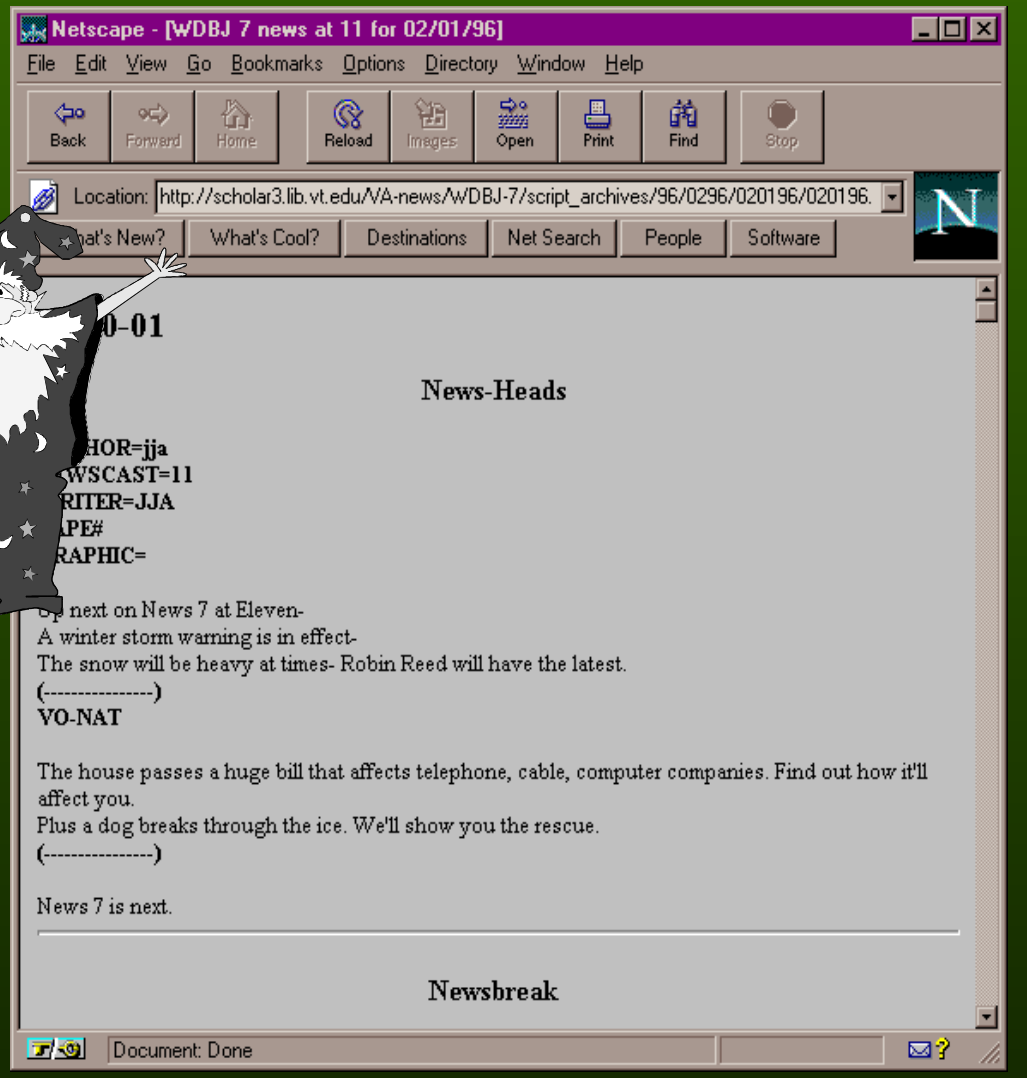
Upload and cleanup of files

- This page is accessed using Netscape 2.0 or better
- The selected files are uploaded
- The cleanup process begins (DOS to UNIX)
- NULL spaces
- Files are marked up using a C program

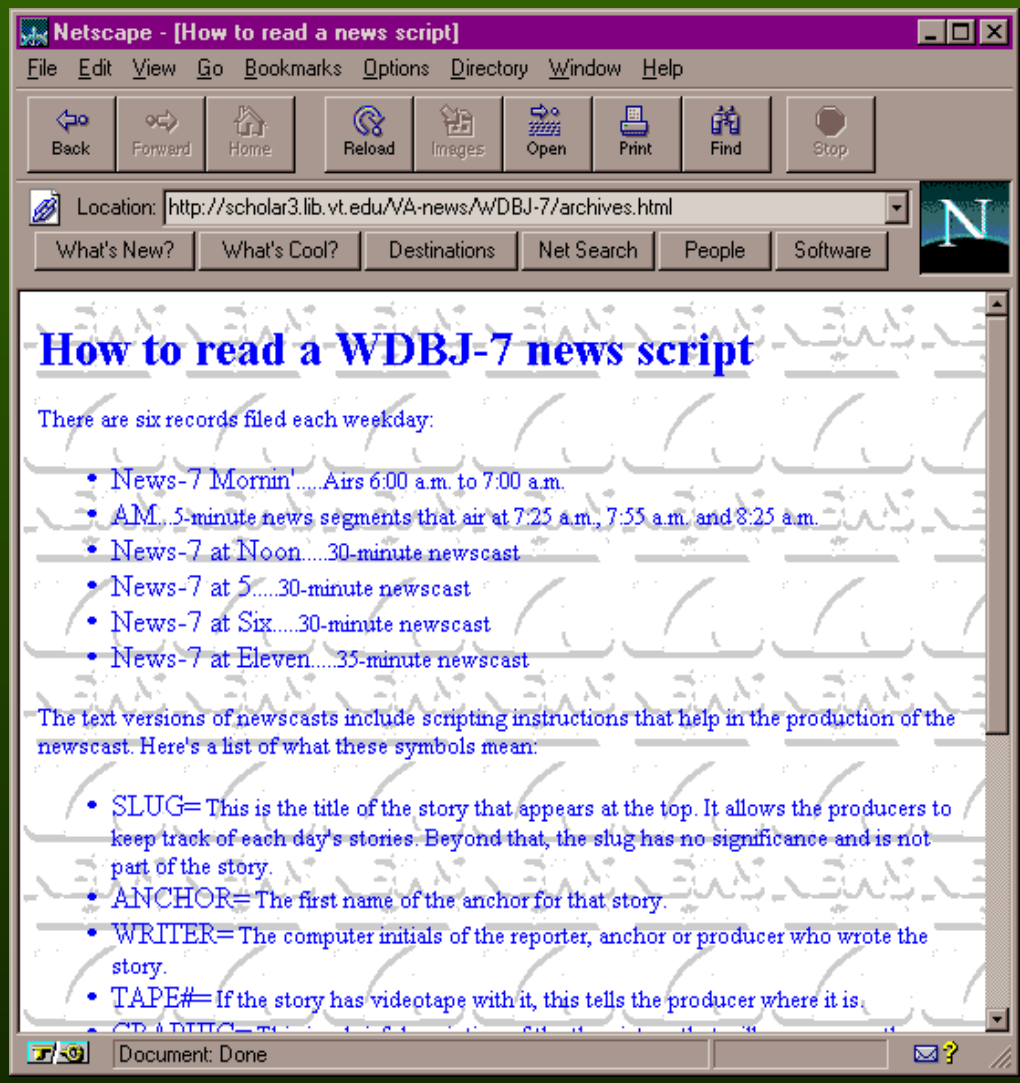


Markup and archival

- Cleaned files and “magic”
- Using words and strings of characters to decide markup
- Adding the files to the archive
- Building the list of files in the archive
- Building the up to date HTML index pages
- Building months, years



Intuitive Interface



Ease of use for WDBJ-7 staff

- Form upload and symbolic links
- Just drop the files and go
- No need to ask for SCP “staff” to do anything
- Continuous update of scripts
- Can add files to archive at any time
- Can not remove files accidentally
- No need for anything other than a WWW browser