

Efficient processing of journal submissions

A.J. Hildebrand

AMS Meeting, Houston,
May 13–15, 2004

The Components of a Traditional Journal Operation

- Editorial processing
- Production
- Subscription management

Editorial Processing

Players

- Authors
- Referees
- Editors
- Managing Editor
- Editorial Assistant

Major Issues

- Centralized processing versus de-centralized processing
- Electronic versus paper-based communication
- Record keeping

The Editorial Processing System at the Illinois Journal of Mathematics

Key Features

- **Centralized processing.** Submissions and all correspondence carried out through the journal's office, with Editorial Assistant serving as intermediary between authors, editors, managing editors, referees.
- **Paperless processing.** Submissions in electronic form. All correspondence carried out via e-mail, with manuscripts passed on as email attachments.
- **Efficient and reliable record keeping.** Records of papers, and all editorial correspondence, are stored on the UIUC Mathematics Department's Unix network.

- **Automation of routine tasks.** Routine clerical tasks, such as generation of a database record for a new submission, or generation of a list of accepted papers, are nearly fully automated through Perl and Unix shell scripts.
- **But leave a personal touch.** No auto-replies; all submissions are personally acknowledged by the Editorial Assistant. While templates are used for most correspondence with referees, editors, and authors, the letters are usually customized to avoid the appearance of a form letter.

Benefits

- **Substantially reduced burden on editors.** Because of the centralized processing, an editor's responsibility is limited to selecting referees for a paper and making decisions on acceptance or rejection. An editor need **not** be well-organized, keep track of the status of their papers, or deal with such chores as sending reminders to referees.
- **Substantially reduced burden on journal staff.** Perl and Unix shell scripts are used to automate routine clerical tasks.
- **Shorter processing time.** Electronic communication eliminates delays in mailing.
- **Cost savings.** Electronic communication eliminates mailing costs. Automation of routine clerical tasks cuts down on staff costs.

- **Reliable manuscript tracking.** Centralized record keeping allows for easy retrieval of the current status of any paper, and its complete editorial history.
- **Easy report generation.** Since all editorial records reside on a Unix network in the form of plain text files, standard Unix tools such as Perl can be used to generate reports and summaries, such as a list of accepted papers, or a list of records matching a given pattern.

Implementation

Key Players

- **The Editorial Assistant (EA):** Serves as intermediary between the parties involved and plays a key role at all stages of the editorial process. Must have strong communication skills and be able to use diplomatic language when appropriate.
- **Managing Editor (ME):** Does initial screening of manuscripts, assigns editors, and, in sensitive cases, steps in to correspond with authors and/or referees.

The Path of a Typical Paper

- Author sends cover email letter, with tex and ps (or pdf) file of MS as attachment to `ijm-submit@math.uiuc.edu`. A script is invoked by the Unix procmail program to do the following:
 - Create a directory for this submission.
 - Place the TeX and ps versions of the MS in this directory.
 - Create a short “info” file containing information such as title, author, subject classification (extracted from the TeX file submitted).
 - Forward a copy of the submission email to the EA (Editorial Assistant) for brief (non-automated) acknowledgement.
 - Forward a copy of the submission to the ME (Managing Editor).

- ME assigns Editor to MS.

- EA forwards paper to Editor, with request for appropriate action:
 - Name referee.
 - Accept outright.
 - Reject outright.
 - Request that another Editor handle the MS.

- Editor sends reply to EA, usually naming a referee.

- EA sends refereeing inquiry to the referee, using a form email letter. Follow-up with reminder as needed.

- Referee sends report to EA.

- EA forwards report to Editor.
- Editor decides on appropriate action (acceptance/rejection/revision) based on report.
- EA informs author of decision, forwarding any referee's comments if appropriate.
- In case of acceptance, author is asked to submit final version to "secret" address.

Technical Details

Basic Principles

- **Unix based.** All electronic records reside on the UIUC Math Department's Unix network. This avoids the problems, the hassle, and the cost, associated with proprietary software under an MS Windows environment (viruses, bugs, etc.); ensures greater reliability and data security because of multiple backup mechanisms that are in place; and allows the use of free tools and programs that are available for Unix/Linux platforms.
- **Text based.** All records are stored as plain text files, in a format similar to that of email messages. Records can be edited with a simple text editor, without requiring specialized database programs, and retrieved and analyzed using the wide array of free tools and programs that are available on Unix platforms for text manipulation.

Organization of files

- Each MS is given a directory, with a name based on the author and the date of submission, e.g., dipiazza.021114.
- TeX and PS files of the MS are placed inside this directory.
- Database record for MS is a small text file, residing inside the MS directory.
- Correspondence regarding a particular manuscript is kept in a separate email folder (directory).
- A separate “forms” directory holds templates for common types of email correspondence with authors, editors, and referees.

Key programs

- **processijmail:** A Unix script invoked by procmail to process email submissions that does the following:
 - Create a directory for this submission.
 - Place the TeX and ps versions of the MS in this directory.
 - Create a text file (“info” file) that serves as database record for this MS and which contains information such as title, author, subject classification (extracted from the TeX file submitted).
 - Forward copies of the submission email to the Managing Editor and to the Editorial Assistant for a brief (non-automated) acknowledgement.
- **makeletter:** A Perl script to generate email form letters based on templates and info files that can be customized as needed.

- **maketally:** A Perl script to generate reports and summaries of various kinds, e.g., a listing of all accepted papers, or all “in process” papers by a particular editor.
- **makeupdate:** A Unix script, that is automatically run each night, and which among other things does:
 - Update the listing of accepted papers on the IJM website.
 - Generate a listing of in process papers for each Editor.
 - Generate and print out a list of changes in the MS records that have occurred during the past day, or the past week.
 - Back up all files.
- **findijmauthor, findijmreferee, etc.:** Scripts to search for and display records whose author, referee, etc., matches a given pattern.

More Details

<http://www.math.uiuc.edu/~hildebr/pub/ijm/ijmprocessing.html>

Credits

Andrew W. Appel, *How to edit a journal by e-mail*, J. Scholarly Publishing **27** (1996), 82–99.