E-PROFILE
WEB-BASED JOURNAL MANUSCRIPT MANAGEMENT AND PEER-REVIEW SOFTWARE AND SYSTEMS

Gerry McKiernan

... [A] paperless system would significantly reduce delays in all aspects of the dissemination cycle. The composition process itself should be speeded up and so should the whole interaction among writers, publishers, and referees (Lancaster, 1978, p. 127).

Budapest Open Access Initiative

On February 14, 2002, the Budapest Open Access Initiative (BOAI) was formally launched (Noble, 2002). The BOAI is a public statement and plan of action that calls for "open access to peer-reviewed research articles in all academic fields and the preprints that might precede them." Open access is characterized by the free availability on the public Internet of peer-reviewed journal articles, as well as non-reviewed preprints of potential interest to the scholarly community (Open Society Institute, 2002).

The BOAI endorses two strategies for achieving its overall goal:

(1) author self-archiving and commitment to offering open access to the full content of publications; and
(2) the establishment of "a new generation of journals" (eprints.org, n.d.).

The first strategy advocates that authors deposit a digital copy of their publications or pre-publications in a publicly accessible Web site, while the second calls for the founding of new research journals that do not charge for a subscription or impose access fees (Open Society Institute, 2002).

New generation journals

In an effort to provide and promote open and wide dissemination of articles, the BOAI proposes that new journals no longer invoke copyright to restrict access or use of journal content. To cover the necessary costs of production and access, the BOAI advocates other funding strategies, including organizational and institutional support, endowments, gifts, page charges, or use of monies that would be made available by the demise or cancellation of journals charging traditional subscription or access fees. Significant savings can be expected for open-access journals by publishing only online and by dispensing with the costs associated with managing subscriptions of authorized and unauthorized access (Suber, 2002). In addition, free or affordable software for electronic journal publishing would also reduce the cost and expedite the production of open-access journals (Suber, 2002).

In recent years, a variety of experimental and commercial systems have been developed that facilitate the management and review of scholarly manuscripts for electronic and paper publication. Among the established and recent Web-based systems are:

- AllenTrack[TM];
- Bench>Press[TM];
- EdiKit[SM];
- ESPERE;
- Journal Assistant[TM];
- Manuscript Central[TM]; and
- Rapid Review[TM].

Software and systems
Product: AllenTrack[TM]

Web address

www.allentrack.net

Vendor

Allen Press/www.allenpress.com

Overview

AllenTrack[TM] was developed to facilitate online manuscript submission, review, and associated correspondence. It is designed to facilitate all essential editorial office functions from data entry, data retrieval, correspondence, and reporting, to workflow control, manuscript file management, and database access. AllenTrack[TM] "is available from any computer, any operating system, any platform, anywhere in the world with an Internet connection," with "... all functions provided as a remote Internet Application Service."

AllenTrack[TM] is an implementation of EJPress[®], a suite of software tools developed by eJournalPress.com to support journal publishing. In addition to its current functions, AllenTrack[TM] will include additional features that "will allow manuscripts to flow seamlessly into the Allen Press typesetting process." In the near future, Allen Press expects "to see electronic manuscripts ... [travel] through review, copyediting, typesetting, optional PDF proof delivery, revisions, and, finally, direct-to-plate in electronic format" (see Figure 1).
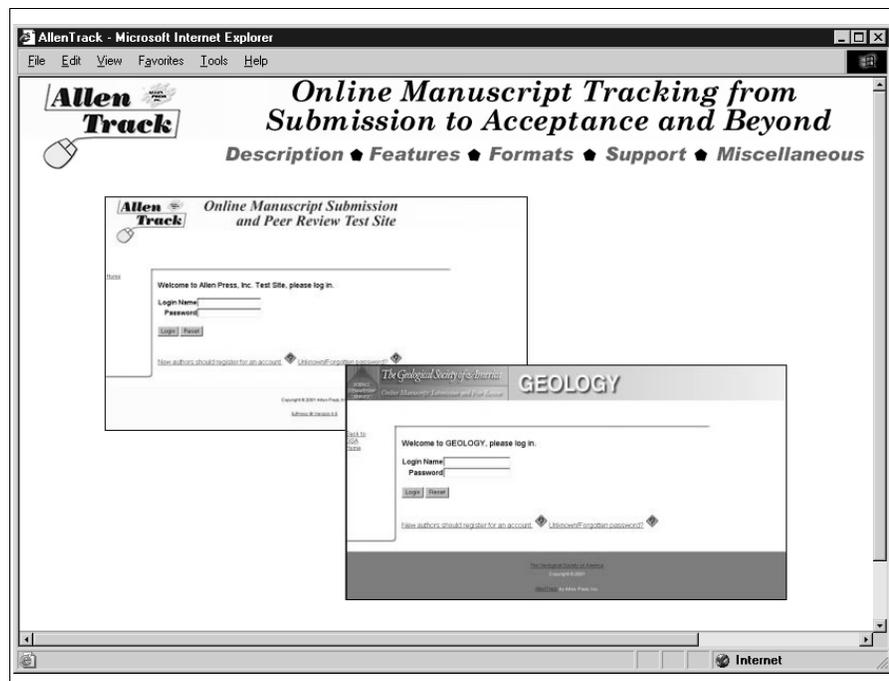
Features and functionalities

(1) *General*:

- author, title, manuscript search features;
- configurable registration screen;

Figure 1

Sample screen print for AllenTrack^{TM} online manuscript submission and peer review system

- electronic copyright transfer mechanism;
- dataset, image, video support;
- journal specific configurations and submission instructions;
- multiple journals supported on single server or database;
- online copyediting (forthcoming);
- online "Help" features;
- secure data files, encrypted URLs and password storage, anti-virus protection;
- simple user interface;
- standard desktop with highlighted action items;
- submissions in multiple input formats;
- submission via Web or FTP (optional);
- supplemental dataset support.

(2) *Manuscript submission*:

- Document input formats:

  – Encapsulated Postscript (EPS);
  – LaTeX;
  – MS Word (DOC);
  – Portable Document Format (PDF);
  – Postscript (PS);
  – RevTex;
  – Rich Text Format (RTF);
  – TeX (TEX);
  – Text (ASCII) (TXT);
  – WordPerfect (WPD).

- Image input formats:

  – EPS;
  – GIF;
  – JPEG;
  – PS;
  – TIFF.

- Multimedia and miscellaneous formats:

  – MPEG;
  – QuickTime^{TM}.

(3) *Peer review process*:

- associate editor availability tracking;
- configurable flow control to and from associate editors and reviewers;
- name/key word-assisted reviewer and associate editor assignments;
- reviewer report cards accessible during assignment process;
- submitter can make associate editor recommendations;
- submitter can make reviewer recommendations.

(4) *Document tracking*:

- rapid determination of pending work;
- tracking of multiple revisions of same manuscript.

(5) *Publishing*:

- export manuscript file to paper;
- GIF and JPEG image Web display formats;
- HTML and PDF document Web display;
- online proof delivery and tracking (forthcoming);
- parallel processing of file conversions (to PDF);
- production tracking (forthcoming);
- storage of same content in multiple formats.

(6) *Other*:

- cross-journal reports;
- graphs.

Journal list

- *American Mineralogist;*
- *Angle Orthodontist;*
- *Copeia;*
- *Evolution: International Journal of Organic Evolution;*
- *Geological Society of America Bulletin;*
- *Geology;*
- *Journal of Parasitology.*

Contact

Marissa Barlow, Director of Editorial e-Services, Allen Press, Inc., 810 East Tenth, Lawrence KS 66044. E-mail: mbarlow@allenpress.com

Product: Bench>Press^{TM}

Web address

benchpress.highwire.org

Vendor

HighWire Press$^{\circledR}$/
highwire.stanford.edu

Overview

Bench>Press^{TM} is a "complete manuscript submission, tracking, review, and publishing system" developed by Stanford University Libraries' HighWire Press$^{\circledR}$. The Bench>Press^{TM} system was designed by a developer with significant real-world experience in manuscript management for a scientific journal. Its design draws upon the *Journal of Biological Chemistry* manuscript-management system, one of the highest-volume systems of its type in current use.

Bench>Press^{TM} is an Internet application and operates with standard browsers, although a JavaScript-enabled browser is recommended. Adobe$^{\circledR}$ Acrobat$^{\circledR}$ Reader$^{\circledR}$ is also required.

Features and functionalities

(1) *General*:

- browser-based and accessible from all places and at all times;
- comprehensive;
- configurable workflow;
- customizable;
- multiple manuscript types accepted (e.g. original submissions, revisions, commissioned papers, reviews, book reviews, letters to the editor, etc.)
- robust searching and reporting functionality;
- scalable for multiple journals;
- search manuscripts by keywords, authors, manuscript identification, etc.
- secure sign-in
- supplemental data support.

(2) *Manuscript submission*:

- Document input formats:

    – MS Word (DOC);
    – Portable document format (PDF);
    – WordPerfect (WPD).

- Image input formats:

    – GIF;
    – EPS;
    – JPEG;
    – TIF.

- Multimedia and miscellaneous formats: any file format as "supplemental data".

(3) *Peer review process*:

- author recommendations on suggested reviewers and editors;
- online reviewer acceptance or decline;
- preservation of confidential review process;
- reviewer tools and related links;
- sorting and searching of reviewers based on profile information;
- saving of partial reviews for later completion;
- specification of assigned editorial roles (e.g. editor in chief, associate editor, staff, etc.).

(4) *Document tracking*:

- automated e-mail correspondence and event notification;
- batch processing of manuscript actions (reminders, assignments to associate editors, selection of reviewers, decision letters, etc.);
- customized and editable correspondence templates;
- manuscript sorting by keyword(s);
- manuscripts are grouped into queues according to defined workflow criteria;
- queue arrangement groups papers requiring similar actions so they can be acted on quickly and efficiently;
- time-based actions/events: reminders sent;
- tracking of turnaround (manuscripts, reviewers, editors, staff, etc.).

(5) *Publishing*:

- advance electronic publication of print capabilities;
- document output format: PDF;
- HTML-coded citations;
- input of other print or online production information to extend manuscript tracking from acceptance to publication;
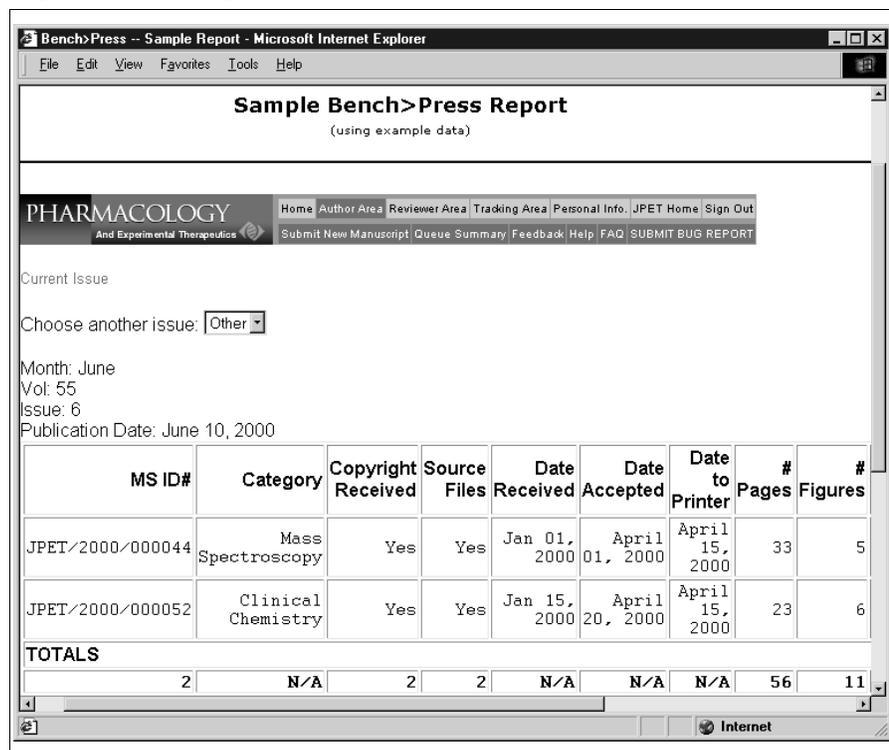- transfer of source and editorial information to typesetters.

(6) *Other*:

- back volume conversion;
- external bibliographic, sequence and structure database links;
- fee tracking and receipt;
- related-article linking;
- standard and customized reports.

Journal list

- *American Journal of Sports Medicine* (forthcoming);
- *Annals of Thoracic Surgery* (forthcoming);
- *Archives of Disease in Childhood* (including the Fetal and Neonatal edition);
- *BMJ*;
- *Biology of Reproduction*;
- *Biophysical Journal*;
- *British Journal of Ophthalmology* (under development);
- *British Journal of Sports Medicine*;
- *Clinical Chemistry*;
- *Drug Metabolism and Disposition* (forthcoming);
- *Emergency Medicine Journal* (under development);
- *European Journal of Cardio-Thoracic Surgery*;
- *Genetics*;
- *Genome Research*;
- *Gut* (under development);
- *Injury Prevention* (under development);
- *Journal of Clinical Pathology*;
- *Journal of Epidemiology & Community Health* (under development);
- *Journal of Medical Ethics*;
- *Journal of Medical Genetics*;
- *Journal of Medical Screening* (under development);
- *Journal of Nutrition*;
- *Journal of Pharmacology and Experimental Therapeutics* (see Figure 2);
- *Journal of Physiology*;
- *Molecular Pharmacology* (forthcoming);
- *Occupational and Environmental Medicine*;
- *The Plant Cell*;
- *Plant Physiology*;
- *Quality and Safety in Health Care*;

Figure 2

Sample snapshot report for submissions to the Journal of Pharmacology and Experimental Therapeutics*, a journal utilizing the Bench>Press^{TM} system*

- *Sexually Transmitted Infections*;
- *Tobacco Control.*

Contact

Bill Witscher, Product-Lines Manager and Associate Director, HighWire Press®, Stanford University Libraries, 1454 Page Mill Road, Palo Alto, CA 94304.

Product: EdiKit^{SM}.

Web Address

www.bepress.com

Vendor

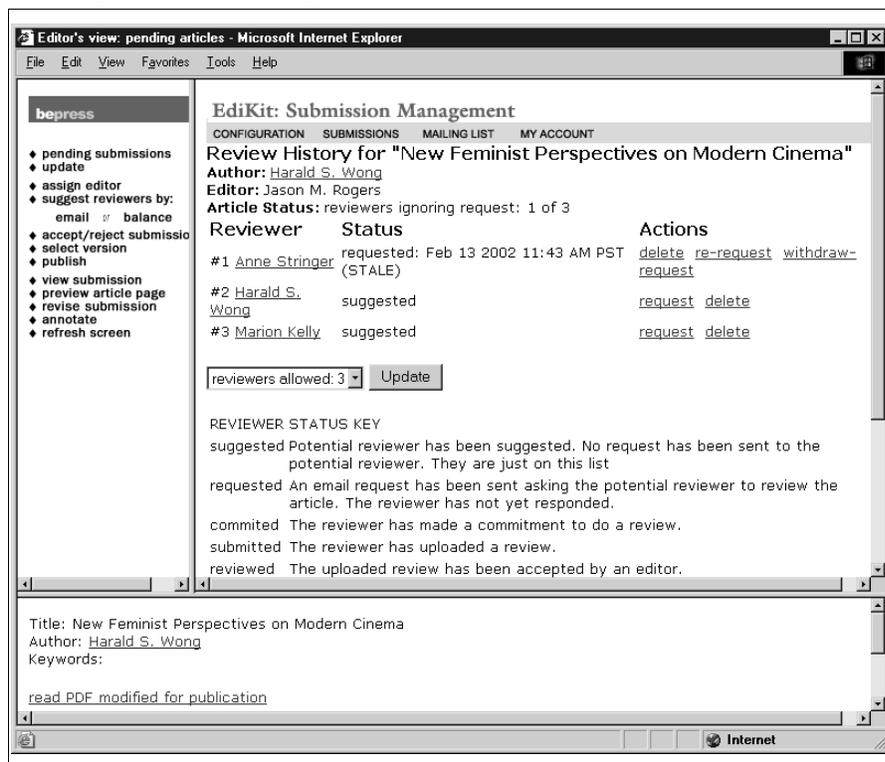The Berkeley Electronic Press (bepress) / www.bepress.com

Overview

EdiKit^{SM} is "an innovative Web-based system used to manage an article in its progress from submission to publication (see Figure 3). EdiKit^{SM} automates every procedural step in

producing scholarly journals, from [submission, review, and final publication]." Effective use of EdiKit^{SM} eliminates "delays inherent in such tasks as mailing manuscripts and reviews; managing correspondence among authors, reviewers and editors; and bundling articles into an issue." As EdiKit^{SM} is Web-based, "editors can work from any computer connected to the Internet without loading … programs onto their hard disk." EdiKit^{SM} "simplifies important functions such as setting a publications layout, tracking correspondence, and publishing electronic content …."

EdiKit^{SM} is also used to manage the editorial procedures associated with the production of conference proceedings, newsletters, working papers, as well as an electronic version of previously published print journals. In general, "partnering universities may … deploy The Berkeley Electronic Press's technology to produce dissertations, monographs, collected writings, … and other types of academic publications." The technology is also available for

Figure 3

EdiKit^{SM} submission management module screen print listing candidate reviewers, their respective status, and potential editorial actions

licensing to learned societies and individual academics.

Features and functionalities

(1) *General*:

- Set of "configuration tools" facilitate the configuration of various aspects of a publication (e.g. structure of the publication, publication appearance, the workflow settings, policies, e-mail message generation, editorial access privileges, etc.)
- Editors can quickly and easily configure their journal's parameters (e.g. submission fees, number of reviews required for publication, journal aims and scope, etc.)

(2) *Manuscript submission*:

- Document input formats:

  – HTML;
  – LaTeX;
  – MS Word (DOC);
  – Portable document format (PDF) (preferred);
  – Rich text format (RTF);
  – WordPerfect (WPD).

- Image input formats:

  – GIF
  – Encapsulated postScript (EPS) (preferred);
  – JPEG;
  – TIF.

- Multimedia and miscellaneous formats:

  – authors are able to upload a file of any type;
  – a drop-down menu of common file types (e.g. .avi, .gif, .ppt) is available, or the author may provide specific information.

(3) *Peer review process*:

- Submission receives simultaneous consideration for publication in one journal (e.g. A*dvances in Economic Analy-*

sis & Policy) within a journal group (e.g. *B.E. Journals in Economic Analysis & Policy*); different titles within a journal group correspond to different levels of general interest and the seminal nature of the publications.

- Submissions are assigned to a single editor, who oversees the editorial process and ultimately decides whether a submission is rejected, returned for revisions, or accepted. If accepted, the editor, based on peer reviews, selects the one journal within a journal group considered most appropriate for publishing a submission.
- Bepress has instituted a formal credit relationship in the form of an Authors & Reviewers' Bank (A&R Bank). When an author submits a manuscript to one of the bepress journals, he/she can either pay for his/her reviews by paying a set fee (e.g. $500), or he/she can receive credit by making a commitment to complete two reviews "promptly and conscientiously in lieu of payment".
- Online instruction manual available for reviewers.
- Decision is guaranteed within ten weeks.

(4) *Document tracking*:

- Monitors reviewer status:

  – "suggested" (potential reviewer has been suggested);
  – "requested" (potential reviewer contacted, awaiting response);
  – "committed" (reviewer has committed to review).

- Monitors reviewer activity:

  – "submitted" (reviewer has uploaded a review);
  – "reviewed" (uploaded review has been accepted by an editor);
  – "rereview" (editor asks a reviewer to re-review a submission);

  – "tooslow" (reviewer did not respond to a review request);
  – "gave_up" (reviewer did not manage to complete a review in time and the editor eventually gave up on getting a review from the reviewer);
  – "declined" (reviewer has declined to do a review);
  – "rejected" (editor rejected the review that the reviewer uploaded).

(5) *Publishing*. No printing delays – instant publication after acceptance.

(6) *Other*. Submission annotation function in submission management module.

Journal titles

(1) B.E. journals in economic analysis and policy:

- *Advances in Economic Analysis & Policy;*
- *Contributions to Economic Analysis & Policy;*
- *Frontiers in Economic Analysis & Policy;*
- *Topics in Economic Analysis & Policy.*

(2) B.E. journals in macroeconomics:

- *Advances in Macroeconomics;*
- *Contributions to Macroeconomics;*
- *Frontiers in Macroeconomics;*
- *Topics in Macroeconomics.*

(3) B.E. journals in theoretical economics:

- *Advances in Theoretical Economics*;
- *Contributions to Theoretical Economics*;
- *Frontiers in Theoretical Economics*;
- *Topics in Theoretical Economics.*

(4) *Global jurist*:

- *Global Jurist Advances*;
- *Global Jurist Frontiers*;
- *Global Jurist Topics.*

(5) Journals of legal scholarship:

- *Issues in Legal Scholarship*;
- *Theoretical Inquiries in Law*.

Contact

Greg Tananbaum, Vice President, Marketing, Berkeley Electronic Press, 805 Camelia Street, Second Floor, Berkeley CA 94710.

Product: ESPERE (Electronic Submission and PEer Review)

Web address

www.espere.org

Vendor

ESPERE/www.espere.org

Overview

ESPERE (Electronic Submission and PEer REview) project is a consortium of learned publishers investigating the technical and cultural issues involved in the creation, development, and implementation of a Web-based journal manuscript management and peer review system (see Figure 4). The ESPERE project began in 1996 as an initiative of the eLib – the Electronic Libraries Programme of the Higher Education Funding Council for England (HEFCE). In 1998, a consortium consisting of British learned society publishers was formed to continue the project. The University of Nottingham Publishing Research Group has provided technical expertise to the project since March 1997. The ESPERE system software has been available to consortium members since May 2000 and a third version is currently in development.

The ESPERE project is currently led by the Society for Endocrinology and the University of Nottingham. The following are current partners:

- British Society for Immunology;
- Company of Biologists;
- Professional Engineering Publishing (Institution of Mechanical Engineers (UK));
- The Royal Society (Great Britain);

Figure 4

In the ESPERE system, an author can upload additional files in any format to accompany a manuscript

- Society for Endocrinology;
- Society for General Microbiology;
- University of Nottingham.

Features and functionalities

(1) *General:*

- administrators have access only to the submissions for assigned journals;
- assignment of manuscript reference number is key administrative function;
- author details may be amended by author or editorial administrator;
- proxy submission facility allows files to be uploaded to the system from an administrative interface, allowing floppy disk submissions to be peer reviewed using the Web-based system.

(2) *Manuscript submission*:

- Document input formats:

    – MS Word;
    – Portable Document Format (PDF) (preferred);
    – Postscript (PS);
    – Rich text format (RTF).

- Image input formats:

    – EPS;
    – GIF;
    – JPEG;
    – PS;
    – TIFF;
    – Others.

- Multimedia and miscellaneous formats:

    – MPEG;
    – QuickTime™;
    – Others.

(3) *Peer review process*:

- Referee component permits editorial administrator to send a review request to a referee and allows these requests to be associated with a particular submission; facility has two parts: "Mail a referee" and "Referee history".
- Referee review requests are sent by entering referee e-mail

address, a covering message, comments relating to the request, and selected files.

- Referee component is customizable (e.g. use of standardized cover messages, journal-specific system e-mail messages, referee report forms, etc.).
- Referee is sent an e-mail with the relevant Web addresses for selected files and a report form Web address.
- All files or a mixture of files (e.g. the main submission and additional file(s)) may be sent to a referee.
- Automatic update of submission status after referee assignment.
- Archive submission component permits the removal of a reviewed submission and all associated files; an archived submission can be restored.
- Referee Web address is single-use, preventing potential misuse of the form.
- Editorial office is notified by e-mail when a referee has reported; refereeing progress is displayed in referee history feature.
- Referee history feature divides records into two groups: received reports and pending reports.
- Comments features permits the editorial staff to document and track reviewing process; includes link to completed referee report.

(4) *Document tracking*:

- Search function permits editorial administrator to search for a submission by manuscript number, title, author e-mail address, date (day, month, year); if no criteria are specified all submissions are retrieved.
- Batch processing function facilitates a modification of manuscript status and manuscript identification a group of submissions.

(5) *Publishing*. Integration with electronic publishing:

- preprints;
- evolving formats.

(6) *Other*. Archived submissions may be restored to active status.

Journal titles

- *Clinical and Experimental Immunology*;
- *Development*;
- *Immunology*;
- *International Journal of Engine Research*;
- *International Journal of Systematic and Evolutionary Microbiology*;
- *Journal of Cell Science*;
- *Journal of Endocrinology*;
- *Journal of Experimental Biology*;
- *Journal of General Virology*;
- *Journal of Molecular Endocrinology*;
- *Journal of Strain Analysis*;
- *Microbiology*;
- *Philosophical Transactions. Biological Sciences*;
- *Proceedings of the Institution of Mechanical Engineers* subseries;
- *Proceedings of the Royal Society of London. Series A (Mathematical, Physical and Engineering sciences)*;
- *Proceedings of the Royal Society of London. Series B (Biological Sciences)*.

Contact

Dee Wood, ESPERE Project Manager, ESPERE Project, Salix Publishing Ltd, Holdland House, Old Street, Clevedon, N Somerset BS21 6BY. E-mail: dee@espere.org

Product: Journal Assistant™

Web address

www.journalassistant.com

Source

JournalAssistant™/ www.journalassistant.com

Overview

Journal Assistant™ is a "database program … [that] tracks all of the important details about the state of journal operations" required by an editorial team. Among its functions, Journal Assistant provides formatted, up-to-moment reports about manuscripts in need of review, the identification of editorial board members available to review, the names of tardy reviewers that need reminders, and the manuscripts that have completed reviews and require subsequent processing. Journal Assistant™ can automatically generate e-mail or printed correspondence to notify late reviewers (see Figure 5).

Journal Assistant™ was developed over a four-year period in cooperation with more than a dozen journal editors.

Features and functionalities

(1) *General*. Tracks all of the important details about the state of journal operations that an editor needs to know.

(2) *Manuscript submission*. Document input formats:

- MS Word (DOC);
- WordPerfect (WPD).

(3) Peer review process:

- association of reviewer comments with a manuscript facilitates the editorial decision-making process;
- correspondence module offers several types of standard texts and tracks distribution and recipient actions;
- display of manuscripts requiring review;
- provides the current status of the manuscripts assigned to each editor;
- provides listing of all editorial board members not currently involved in a review, as well as a history of recent reviewing activity;
- provides listing of all reviewers sorted by their specialty;
- reviewer can indicate anonymous status;
- separate listing of reviewer names offers greater security by restricting access to an associated review.

(4) *Document tracking*:

- basic data (e.g. contact information, manuscript identification, title, etc.) is recorded in a manuscript form; information

Figure 5

Sample manuscript tracking form in the Journal Assistant^TM, with highlights of select features

MANUSCRIPT TRACKING

The important dates and decisions of the peer review process are recorded in the middle portion of the form. The steps of the review process are clearly numbered (1 – 10).

Ease of Use: The numbered manuscript steps shown in the middle portion of the screen (1-10) are a valuable feature for newly hired editorial assistants, and help to insure that important steps are not accidentally skipped.

Flexibility: When needed, manuscript steps can be intentionally skipped (e.g., sending the manuscript out for review).

The user can also re-label some of the steps as needed (e.g., re-label '9. Final Received' to '9. PDF file received').

| Manuscript ID: | 02-003 | Status: | Under Review | Memo: |

Title: *The Role of Ca1 in Memory Encoding*

Contact: Johnson, Kay   E-mail: kjohnson@ucsd.edu   Record List of Authors   Edit Abstract

1. Received: 1/6/2002 6. Action Received: Submission # 1   Record New Action
2. Editor: Reeve, Dave 7. Decision: Manuscript Type: Erase Prior Action
3. Add Reviewers (see below) 8. Author Notified: Copyright:
4. Reviewers Selected: 1/10/2002 9. Final Received: Publisher Info: Reviewer Comments
5. Reviews Completed: 10. Sent to Publisher:

Add Reviewers | Remove

	Code	E-mail Address	Assigned/Requested	Due	Late Notice	Received	Status of the Manuscript Review
Langley, Chris	A	clangley@va.edu	1/7/2002	1/28/2002			in progress
Stannard, Susan	B		1/7/2002	1/28/2002			in progress
Zarrow, David	C		1/10/2002	1/31/2002			in progress
Webb, Mike			1/7/2002				declined

The above image is a screen shot from Journal Assistant™. Copyright © 2002 Journal Assistant™. All rights reserved.

Home | Manuscript Tracking | Correspondence | Reports | Contact

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such as the manuscript abstract and list of authors can be added;

- manuscripts may be automatically or manually numbered;
- review process steps are clearly numbered;
- steps can be relabeled as needed (e.g. re-label "9. Final received" to "9. PDF file received");
- status of the manuscript review is automatically updated;
- important dates and decisions of the peer review process are noted;
- correspondence distribution automatically linked to manuscript tracking.

(5) *Publishing*. Publishing module (under development).

(6) *Other*:

- provides a comprehensive report for associate editors on the status of all their manuscripts and the progress of all manuscript reviewers assigned to each manuscript;
- weekly reports are available and additional reports may be specified or developed;
- year-end reports provide a comprehensive summary of all editorial decisions statistics are reported for the journal as a whole as well as for each individual editor;
- supplemental reports provide additional details for each editor as well as for reviewers (e.g. statistics on review quality).

Journal list

- *Advances in Pharmacy*;
- *Cognitive, Affective, and Behavioral Neuroscience*;
- *Hospital Pharmacy*;
- *Journal of Comparative Psychology*;
- *Journal of Counseling Psychology*;
- *Journal of Experimental Psychology: Animal Behavior Processes*;
- *Journal of Experimental Psychology: Learning, Memory, and Cognition*;
- *Journal of Family Psychology*;
- *Journal of Technology Studies*;
- *Law & Social Inquiry*;

- *Memory & Cognition*;
- *Nutrition and Cancer*;
- *Psychological Methods*;
- *Psychonomic Bulletin & Review*.

Contact

Robert Kelley, PhD, President, Journal Assistant^TM, 4475 Casa Grande Circle No. 146, Cypress, CA 90630. E-mail: Sales@JournalAssistant.com

Product: Manuscript Central^TM

Web address

www.scholarone.com/ products_manuscriptcentral.html

Vendor

ScholarOne^SM / www.scholarone.com

Overview

Manuscript Central^TM "is the STM publishing industry's leading online tool for managing manuscripts through the scholarly journal peer review process." Manuscript Central^TM systems have been installed for leading societies and commercial publishers throughout the world. Manuscript Central sites have processed tens of thousands of submissions (70,000 in 2001 alone).

Manuscript Central^TM accommodates six possible user groups, including authors, editors-in-chief, associate editors, reviewers, administrative staff, and boards of editors. Manuscript Central^TM can be configured to accommodate alternative workflows. Quarterly, ScholarOne releases new versions of Manuscript Central^TM with enhanced functionality and new features (see Figure 6).
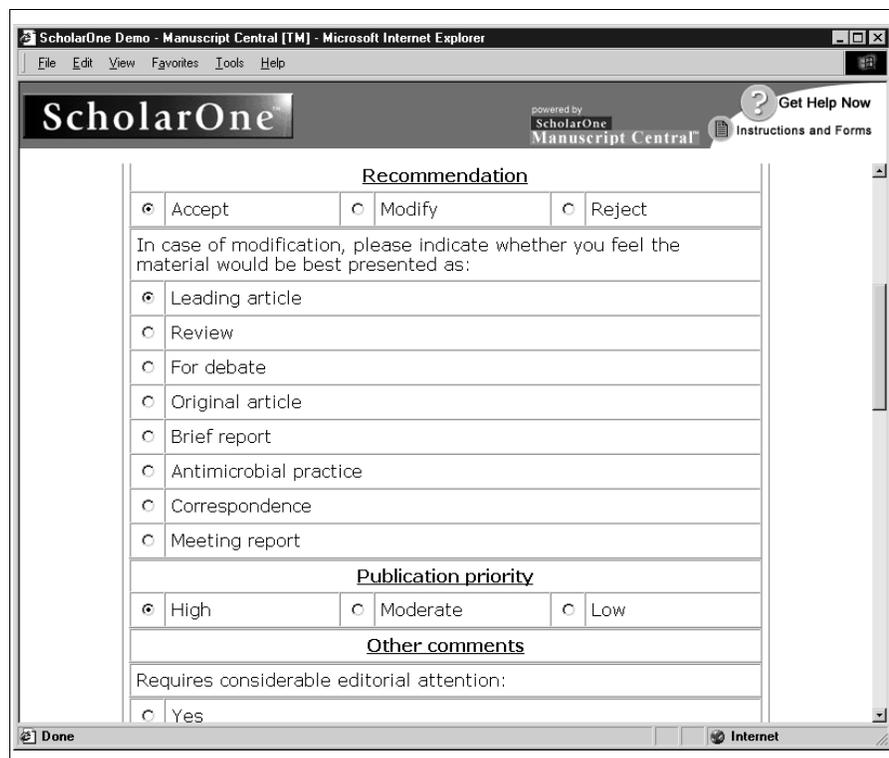
Features and functionalities

(1) *General*:

- author can view and respond to reviewer comments and submit revisions:
- display full text and graphics;
- flexible submission file formats are accepted;

Figure 6

Central portion of sample referee report Manuscript CentralTM showing select recommendations and publication priority options

- full text and graphics are uploaded over the Internet;
- flexible submission file formats are accepted;
- robust, secure, and scalable system;
- submissions are immediately available for review;
- track author data;
- view submitting author data.

(2) *Manuscript submission*:

- Document input formats:

  - Encapsulated Postscript (EPS);
  - LaTeX;
  - MS Word (DOC);
  - Portable document format (PDF);
  - Postscript (PS);
  - RevTex;
  - Rich text format (RTF);
  - TeX;
  - Text (ASCII) (TXT);
  - WordPerfect (WPD).

- Image input formats:

  - EPS;
  - GIF;
  - JPEG;
  - PS;
  - TIFF;
  - others.

- Multimedia and miscellaneous formats:

  - MPEG;
  - QuickTime^{TM};
  - others.

(3) *Peer review process*:

- add comments or notes to submissions;
- automatic, editable e-mail correspondence feature;
- enter accept/reject/revise decisions online into the database;
- journal-specific score sheets for comments to the editor and author;
- search for and select reviewers or associate editor from the database, view reviewer or associate editor history and current workload.

(4) *Document tracking*:

- manuscript status can be displayed online at any time;
- peer review tracking data captured.

(5) *Publishing*:

- complete PDF author proofs are produced "on the fly" for author approval;
- data and Web-enabled files captured by Manuscript Central can be exported to a journal's existing production tracking system and to online publishing systems;
- downloadable original author files for editing and production;
- organize accepted articles into issues and generate tables of contents.

(6) *Other*:

- extensive reporting capabilities;
- proxy author functionality;
- track reviewer and editor data and performance.

Journal titles

"Approximately 160 journals are under contract and the list expands weekly." Representative organizations and associated titles include:

- American College of Allergy, Asthma, and Immunology: *Annals of Allergy, Asthma, & Immunology*.
- American Dairy Science Association: *Journal of Dairy Science*.
- American Physiological Society: *American Journal of Physiology* subseries.
- American Society for Hematology: *Blood*.
- American Society of Animal Science: *Journal of Animal Science*.
- American Thoracic Society: *American Journal of Respiratory Cell and Molecular Biology, American*

Journal of Respiratory and Critical Care Medicine.

- Association of American Geographers: *Annals of the Association of American Geographers*.
- Biomedical Engineering Society: *Annals of Biomedical Engineering*.
- Blackwell Science: *Clinical Endocrinology*.
- British Society for Rheumatology: *Rheumatology*.
- European Respiratory Society: *European Respiratory Journal*.
- Institute of Electrical and Electronics Engineers: *IEEE Sensors, IEEE Transactions on Advanced Packaging, IEEE Transactions on Antennas and Propagation, IEEE Transactions on Biomedical Engineering, IEEE Transactions on Components and Packaging Technologies, IEEE Transactions on Electronics Packaging Manufacturing, IEEE Transactions on Energy Conversion, IEEE Transactions on Information Technology in Biomedicine, IEEE Transactions on Multimedia, IEEE Transactions on Nuclear Science, IEEE Transactions on Neural Systems and Rehabilitation Engineering, IEEE Transactions on Power Delivery, IEEE Transactions on Power Systems, IEEE Transactions on Systems, Man and Cybernetics. Part B, IEEE Transactions on Very Large Scale Integration Systems, Transactions on Electromagnetic Compatibility*, etc.
- Institute of Food Technologists: *Journal of Food Science*.
- International Behavioural and Neural Genetics Society: *Genes, Brain and Behavior*.

Contact

Mark T. Drapanas, Vice President of Sales, ScholarOne, Inc., 375 Greenbrier Drive, Suite 200, Charlottesville VA 22901. E-mail: Mark.Drapanas@ ScholarOne.com

Product: Rapid Review™

Web address

cpc.cadmus.com/rapidreview/

Vendor

Cadmus Professional Communications /cpc.cadmus.com

Overview

"Rapid Review™ 2.0 is a robust, proven application running in a professional data center with fully redundant hardware systems for reliability; 24/7 system monitoring, outstanding physical security, and continual data backups which are stored both locally as well as remotely." The Rapid Review™ system can perform a full spectrum of peer review functions within one system . . . [Its] "visual design utilizes the power of mixing pictorial concepts with links, buttons, bars, text, shapes, and color" (see Figure 7).

The Rapid Review™ system "underwent 18 months of development and testing. It is a large workflow application written in Java that utilizes an Oracle database for the tracking and storage components." The system is licensed, hosted, maintained, and supported by Cadmus Professional Communications, as a service provider.
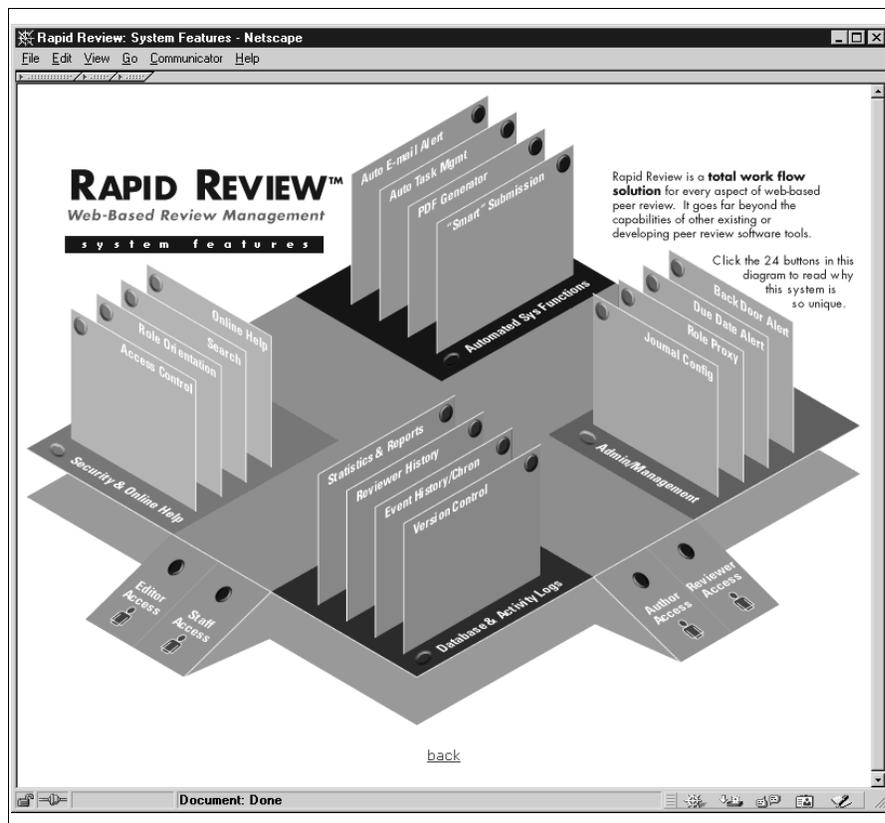
Cadmus has been a leader in supporting scholarly publication for more than 100 years. Rapid Review™ was developed by individuals with first-hand knowledge and experience in managing the peer review process for scientific and scholarly publishers.

The Rapid Review™ system has been designed for publishers of single journal titles as well as multiple journal titles. Its unique design provides publishers with [dozens of] workflow options that can be set up on an individual journal basis . . . [and] still share . . . [a] reviewer pool. This [functionality] can be extremely useful for sister journals within one society . . . [or] for cooperating sister societies. The Rapid Review™ system can handle tens of thousands of articles per year.

Rapid Review™ versions:

- version 1.0 (released in May 2000).
- version 1.1 (released in July 2000). Features: a PDF auto-conversion capability.

Figure 7
Schematic of Rapid Review™ system features

- version 1.2 (released in September 2000). Features: double-blind reviewing option.
- version 1.4 (released in August 2001). Features: platform version 2.0 (released in April 2002). Features: a major release representing the "second generation" of the system: configurable workflow options; customizable review forms for each journal; automated FTP process for delivering content; automated e-mail messages tailored to publishers' processes; support for special characters in key text boxes, manuscript solicitation and tracking, manuscript pre-screening; expanded reports and data export functionality; capture of submission fees, pages charges, color charges and related reports.

Features and functionalities

(1) *General*:

- Adobe Acrobat Reader® is required for viewing manuscripts;
- automatic e-mail alerts can be tailored to publishers' processes;
- automatic task assignment, task alerting, and task management;
- customizable review forms for each journal;
- configurable manuscript submission form for each journal;
- configurable workflow options eliminate custom applications and simplify upgrades;
- detailed author submission guidelines;
- extensive journal administration capabilities;
- integration between print and digital environments;
- reviewer grading scale;
- reviewer instructions;
- reviewers can upload review comments and marked PDF documents;
- reviewers' comments can be selectively sent to authors, and/or other reviewers;
- shared profile between review and author identity with common log-in secure digital environment;
- shared system configuration permits sister journals to have their own procedures;
- shared system options provide economic savings;
- standard letter templates;
- standard Web browsers (IE and Netscape) for system access.

(2) *Manuscript submission*:

- Document input formats:

  - LaTeX (save as a postscript file);
  - MS Word (DOC);
  - Rich text format (RTF);
  - Portable document format (PDF);
  - Postscript (PS);
  - RevTex (save as a postscript file);
  - TeX (save as a postscript file);
  - WordPerfect (WPD).

- Image input formats:

  - EPS;
  - TIFF;
  - PowerPoint.

- Multimedia and miscellaneous formats. Any file type can be uploaded as supplemental files.

(3) *Peer review process*:

- Single-blind and double-blind reviewing options.
- Nested outline is used to structure editorial and reviewer actions.
- Embedded links provide access to reviewer reports, histories, and decision letters.
- Performance histories show all reviewing activity (e.g. dates, manuscripts reviewed, turnaround times, performance grades, etc.)
- Reviewing pool can be searched to find reviewers whose interests overlap. Searches allow multiple criteria joined with Boolean operators.
- Staff and editors see only the manuscript work that belongs to them.
- Working mechanisms of each journal are tailored as needed.

(4) *Document tracking*:

- automated status tracking, activity summaries and batch processing functions;
- publishers and authors can track manuscripts electronically;
- set-up procedures that define manuscript types, due dates, letters, and e-mail templates are journal-specific as are the management reports.

(5) *Publishing*:

- automated FTP process connects online copy editing, production, and distribution;
- automatic creation of PDF manuscripts from author original files;
- transfer of accepted manuscript and tracking system metadata to production servers via an automatic File Transfer Protocol (FTP);
- vendor offers a variety of editorial and production services (e.g. digital pre-editing and conversion services distribution and fulfillment, electronic copy editing, composition, digital content management, printing, reprints, and warehouse fulfillment services).

(6) *Other*:

- more than 500 pre-programmed reporting options and extensive data export functions that provide custom reports and analyses;
- management of submission fees, page charges, and color charges;
- role-specific username and password protection, role-specific interfaces, URL identity protection, automatic timeout function, multi-attempt password lockout.

Journal list

The Rapid Review™ vendor, Cadmus, assists in the publication of a number of prestigious journals, such as *Science*, *Nature*, *Proceedings of the National Academy of Sciences*, and the *Journal of Biological Chemistry*. Its clients number more than 350, and include such organizations as the American Association for the Advancement of Science (AAAS), the American Medical Association (AMA), the National Academy of Sciences (NAS), the American Chemical Society (ACS), the American Institute of Physics (AIP), the America Psychological Association (APA), and Lippincott Williams & Wilkins. Cadmus prepares and provides more digital content to online distributors, such as HighWire Press® than any other service company.

Current and future Rapid Review™ customers and their associated journals are:

- American Association for Cancer Research: *Cancer Epidemiology, Biomarkers & Prevention, Molecular Cancer Therapeutics, Cell Growth & Differentiation, Cancer Research, Clinical Cancer Research*.
- American Association of Petroleum Geologists: *AAPG Bulletin, Journal of Environmental Geosciences*.
- American Cancer Society: *Cancer, Cancer Cytopathology, Cancer Practice, CA-A Cancer Journal for Clinicians*.
- American Heart Association: *Stroke*.
- American Institute of Chemical Engineers: *The AIChE Journal*.
- American Institute of Ultrasound in Medicine: *Journal of Ultrasound in Medicine*.
- American Society for Investigative Pathology: *The American Journal of Pathology, Journal of Molecular Diagnostics*.
- Association of American Medical Colleges: *Academic Medicine*.
- The Endocrine Society: *Molecular Endocrinology, Endocrinology, Endocrine Reviews, Journal of Clinical Endocrinology & Metabolism*.
- Lippincott Williams & Wilkins: *Epidemiology, Anesthesia & Analgesia*.
- National Communications Association: *Review of Communication*.
- Sage Publications Inc.: *Journal of Diagnostic Medical Sonography, S Journal of Clinical Pharmacology, Medical Decision Making*.

Contact

Robert F. Kidd, PhD, Senior Vice President, Electronic Publishing, Cadmus Knowledge Works, PO Box 70, Palisades NY 10964. E-mail: kiddb@cadmus.com

"What is Past is Prologue"

... [It] is a simple progression from computer teleconferencing between scientists exchanging ideas and drafts of papers to using such networks as the basis for electronic journals (Shackel, 1983, p. 23).

In July 1980, the British Library Research and Development Department (BLRDD) decided to support a three-year research program "to explore and evaluate the use of an electronic communication network as an aid to writing, submitting and refereeing papers and as a medium for other types of scientific and technical communication" (Shackel, 1991, p. 4). Known as BLEND (Birmingham and Loughborough Electronic Network Development), the project considered a variety of electronic "journal" activities, including the following components (Shackel, 1983, pp. 25-6):

- refereed papers: writing, revising, submission, refereeing, editing, and acceptance of scientific papers;
- comments and discussion: virtual discussion of submitted manuscript;
- annotated abstracts or annotated bibliography;
- electronic project newsletter;
- electronic project bulletin;
- cooperative authorship;
- "poster papers";
- "enquiry-answer" system between experts.

At the core of the project, however, were investigations relating to the fundamental processes associated with scholarly publishing, notably authoring, submission, and refereeing (Naylor and Geller, 1995, p. 37). As observed by Professor Brian Shackel of Loughborough University, the BLEND project director, a crucial factor that affected project participation was the quality of the technology that enabled participants to perform their traditional roles within a novel, electronic framework (Naylor and Geller, p. 42). Today, more than two decades since the initiation of the BLEND project, a variety of technologies offer scholars unprecedented opportunities to become more actively engaged in the most essential of professional activities: the preparation, submission, and review of their scholarship.

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Gerry McKiernan (gerrymck@iastate.edu) is a Science and Technology Librarian and Bibliographer, Iowa State University Library, Ames, Iowa, USA.

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