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Manuscript Preparation, Submission and Features of the Electronic IBVS

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Abstract. IBVS is a small journal in the field of variable star research, which is fully electronic now. The HTML version of the journal features object database links and reference links. The necessary markup is provided by the authors, using the macros implemented in the LaTeX style file. We are testing a web-based manuscript submission tool, which would enable authors to submit data files, draw or upload simple figures, and enter plain ASCII or LaTeX text. The text is typeset on the server. The submitted manuscript can be previewed, and links tested by the authors themselves. The markup has been designed to facilitate automatic information exchange between the journal and databases. A short description is given on the other features of the electronic IBVS.

1. The IBVS

The Information Bulletin on Variable Stars (IBVS) is a small journal covering variable star research. It is published by Konkoly Observatory on behalf of the Commissions 27 and 42 of the IAU. The Bulletin, started in 1961, now publishes 150–200 short papers annually.

The main characteristics of the Bulletin are the narrow field, the rapid publication cycle and the small editorial staff. In the past decade IBVS has grown from a bulletin to a peer-reviewed journal.

2. The Electronic IBVS

The electronic version of IBVS[1] was created in 1994, with printable (PostScript) issues on the web and anonymous ftp (alongside with LaTeX sources). Shortly afterwards archive issues started to become on-line, both in image (PostScript) and OCR-ed text form (Holl 1998). Printable issues were published on CD-ROMs as well (Holl & Sterken 2000; 2001). The web site offers simple ToC and full text search capability.

Rapid publication of manuscripts is a must at IBVS. Peer review takes time, editorial resources are limited, so manuscripts should be technically well prepared. The papers published in the journal are (mostly) typeset by the authors in LaTeX, using the specific style file. The work-flow is another critical

[1] `http://www.konkoly.hu/IBVS/IBVS.html`

factor: the tasks of maintaining the web-pages, moving the files around, indexing, backup, etc., are helped by a set of small shell scripts.

The HTML version of the bulletin was created with the help of the CDS, Strasbourg, in 1999. HTML pages are generated on-the-fly. The system was built on a prototype created by F. Ochsenbein (1999), and uses CGI programs, awk scripts and `cgiprint` (LaTeX-to-HTML conversion, Ochsenbein 1999). Link generation is aided by the GLU system (Fernique 1998).

The HTML version of the IBVS has—besides trivial e-mail and URL links—object and reference links, which are produced in a completely different way. Object links point to the SIMBAD database, and are created from the markup inserted by the author. The original idea was using a specific LaTeX tag (preferably inserted by the author) marking up the object name resolvable by SIMBAD. Maintaining hashing tables at CDS makes it possible now to use otherwise non-resolvable names. In the course of years we started to use those object tags to build object indexes for the printed volumes of the journal. The situation became more complicated allowing large tables with thousands of object links. Object tags proliferated—now we have six different tags of the genre.

Reference links are created by processing the source text, recognizing information needed for bibcode creation: author initial, year, journal, volume and page. The reference syntax at IBVS is not very strict; we do not require standard journal abbreviations, for instance. Automatic reference resolution is far from being complete; some references are not resolved automatically. To supplement this, the LaTeX style file allows the author to insert bibcodes explicitly.

Besides the links to those services from the journal, ADS and SIMBAD have links to IBVS, too. The script which uploads issues to the IBVS web and ftp server sends e-mail messages with the ADS tagged format bibliographic descriptions to both ADS and SIMBAD. There are plans for future improvements of the HTML version of the IBVS. We intend to enable linking with other astronomical services like Aladin and VizieR.

Papers in the journal are often accompanied by extensive tabular or graphical data available only electronically. IBVS allows linking for LaTeX format tables, plain ASCII data files, and figures. Moreover, electronic-only tables might contain further database, local data file or figure links, which makes it possible to store and deliver large amounts of auxiliary data.

3. Challenges

A fair percentage of the authors at IBVS has problems with LaTeX (and with PostScript). Sometimes even experienced professionals get confused with the usage of special markup for links (it would be desirable for astronomical journals to standardize such markup to some degree). Furthermore, object name syntax in SIMBAD link markup or reference syntax often contains errors too, and authors do mistype or mix up bibliographic data. Again, IBVS has only limited capacities for correcting these.

A further problem might be the preparation of PostScript figures. Some authors have difficulty in supplying PostScript, others (mainly using commercial PC-based graphical packages) produce non-standard PostScript.

It would be desirable to let the authors check how their paper would look with the links, and having them check those links. (The same line of argument has led to the idea of the authors typesetting their own papers.) A manuscript preparation tool could free the authors from (some of) the burden of LaTeX typesetting, and let them do what should really be their task: preparing semantically better manuscripts. Such a tool could reconcile the conflict between rich markup and user-friendly manuscript preparation.

4. Web-based Manuscript Preparation and Submission Tool

There is a newly invented article-style at IBVS which makes the development of a manuscript preparation tool easier. The Editors of the journal have introduced special, form-like styles for simple papers reporting merely observational data. Incidentally, the authors who benefit most from this are largely the same who have problems with manuscript preparation.

The manuscript checking and submission tool is a set of HTML pages and CGI programs. The first page allows the submitting author to enter their name and addresses and chose an identifier/password pair for the submission. The submitted manuscript can be over-written in a subsequent session using the same identifier and password.

The first publicly available version allows submission of manuscripts without figures. It is for papers on observations of minima of variables, mainly eclipsing binaries, which commonly appear in IBVS. Browsers can not be used as editors, so authors are advised to compose their papers locally with an editor of their choice, and then copy the content to the appropriate HTML form fields using cut-and-paste technique. Both LaTeX markup and plain ASCII text can be used (the editors can add some necessary markup if needed).

Having filled in the form, the submitting author can proceed to preview, where links can be tested. Finally, the manuscript can be submitted. It will be typeset by the server side CGI program in LaTeX. This technique allows syntactical checking to some degree. Incomplete manuscripts are rejected with an error message.

Another version of the tool is under development. This would allow the submitting author to upload a data file, upload a PostScript figure or to have it drawn by the server from the uploaded data file.

It would be entirely possible, of course, to have the server save the submitted manuscript, or parts of it (tables) in XML. The tool could be used for link testing only—authors could test the links they get from their manuscript, do the typesetting in LaTeX, and submit the manuscript by ftp.

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