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NOTE: An asterisk in the heading of each paper indicates the author who is to receive any correspondence.

Submission of Journal Manuscripts on Floppy Disks

Summary
There have been various requests by authors to submit manuscripts on floppy disks to a journal for publication. This note details some of the investigations that the RSC has carried out on this subject, some of the problems identified, and some future actions.

Introduction
Many authors who use word processors to prepare papers for submission to *J. Chem. Soc.* consider that the information on floppy disk should be readily usable for the production of journals. The potential benefits perceived by the author include reduced proof-reading requirements, reduced costs, and faster publication. At present however, from the editorial viewpoint, the use of author disks is fraught with many difficulties. There is a need to overcome many technical and organisational problems before the information on floppy disks could be used routinely and efficiently in the production of journals.

The Problems
If the information is to be used for typesetting, the RSC needs to be able to translate word-processor formatted documents into the corresponding format with the correct style for the particular journal with footnotes, chemical formulae, diagrams, and other figures inserted at the appropriate places for the typesetter.

In 1989 the RSC surveyed about 1 000 authors concerning submission of papers on floppy disks to help in assessing the feasibility of accepting such data. About 500 replies were received. The major results were:

— 85% used PCs and associated word-processing software for the preparation of papers submitted to RSC journals.

— 61% of respondents would be willing to submit papers on floppy disk and 45% would be willing to use electronic mail.

— 49% of respondents would be willing to modify their style of writing of papers to conform to RSC requirements of layout or representation of special characters

— Three main types of computer were used by respondents, IBM PCs and compatibles (43%), Apple Macintosh (26%) and NEC 9800 series (15% overall, 73% of Japanese respondents).

— Over twenty different word processor software packages were mentioned by two or more authors.

— 67% of Macintosh owners use ChemDraw for chemical structure input.

— There were concerns that electronic submission might become the only form of submission in the future.

From these results it is apparent that the RSC would need to be able to accept information from a wide range of word processors running on a variety of different computers if it were to be able to take papers from all authors in their native format. The RSC would then need to convert these papers into a standard format for editorial work and typesetting without loss of information.

Word processors are becoming more sophisticated. They allow much more tailoring by the end user of various options that can have an effect on the stored document, *e.g.*, different typefaces that have different character sets, complicated formatting options. Different national versions can result in the same computer code being used to represent different characters. At the same time, many word processors have only restricted character-set capabilities when compared with the typesetting systems used for setting journals. Authors are often unable to obtain the full range of characters needed for their papers and use alternatives to obtain a desired visual result (or even write the characters in on the printed manuscript). Authors also use incorrect characters [*e.g.*, superscript letter o (°) for the degree symbol (°), hyphens for hyphen (-), minus sign (−), en rule (–) and em rule (—) characters]. The presentation of tabular matter, and mathematics causes many difficulties in terms of both the character set and layout.

When authors write papers, they normally lay out the text and other matter in a format that gives the required visual effect and it is easy to read when printed on their printer. This may result in the addition of extra hyphens used as end-of-line breaks within text which are not required in the final output.

Unfortunately, the requirements of the RSC are different if it is going to use the information for typesetting. The layout coding used by the authors is normally not readily usable by the RSC (this is particularly the case for tabular matter and mathematics). The RSC requirements are likely to include the need for identifiers explicitly marking various sections of text (*e.g.*, title, authors, addresses, footnotes). Formatting to give a visually attractive appearance is not required.

The RSC handles several thousand manuscripts each year. If it is to be able to handle floppy disks of data efficiently then the disks would need to have uniformity of style and content. This would allow each disk to be handled in a standard manner rather than each as an individual item with its own requirements. Ideally the data would be presented in a standard codified format that would allow various items and sections of information to be readily identifiable.

Most chemical papers contain graphical matter, *e.g.*, chemical structures, diagrams, halftones, colour plates. Ideally, these also need to be provided in an acceptable machine-readable format or mechanisms need to be set up to allow their integration into documents.

A Possible Route to Accepting Floppy Disk Information
It should be possible to overcome most, if not all, of these problems in the longer term. The implementation of all the necessary systems is unlikely to occur quickly but various steps will be taken in order to move forward. In the shorter term there is a need to gain more practical experience of problems and solutions by building up case histories.

The RSC survey indicated that a few, widely used word-processor formats (*e.g.*, MacWrite, Microsoft Word, WordPerfect, WordStar) are used by a high percentage of authors. There are a few common standards in existence for file interchange (*e.g.*, IBM, DCA, Microsoft RTF) to convert data into a uniform format for further processing. Other word processors have facilities to convert into these formats or into ASCII format which could be accepted by the RSC. Detailed guidelines are being formulated to assist authors in preparing papers in a codified style and to help the editorial processing of the information.

These guidelines will be used in an experiment, with an invited group of authors in the first instance, to help identify the problems and solutions at a more detailed level.

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