To: Distribution

From: Bill Silver

Date: December 10, 1976

Subject: Multics Word Processing Subsystem, WORDPRO

Wilson Mizner said:

"When you steal from one author it is
plagiarism.
When you steal from many, it is
research."

INTRODUCTION

This memorandum announces and outlines a plan for developing a Multics word processing subsystem named WORDPRO. The development of WORDPRO is research.

The need for WORDPRO is clear. "Word processing" is one of the hottest buzz words in the data processing industry today. By 1980 it will be a $2 billion market, by 1985 an $8 billion market. Up to this time, the word processing market has been dominated by small, stand-alone word processing stations. However, more and more, larger companies are looking to centralize their word processing facilities. The top management of these companies are asking their data processing managers, "What word processing capabilities can be provided by our own in-house data processing operations?" This trend is evidenced by data processing managers asking large system venders, "What word processing capabilities can your systems provide?" WORDPRO is intended to be the Multics answer to that question, and it is a very good answer.

The idea behind WORDPRO is simple. There exist today on Multics several very useful word processing tools. These tools are being used to produce quality documents, and the productivity of the people using these word processing tools is very high. WORDPRO is an attempt to take advantage of, and to build upon, these very positive aspects of Multics word processing.

WORD PROCESSING TOOLS

The first step in the development of Multics WORDPRO involves identifying the individual word processing tools that should be part of WORDPRO. A preliminary list of such tools is presented below:

Text Editor	(qedx)
Text Formatter	(runoff)
English Abbrevs	(Speedtype)
Typo Detection	(Wordlist)
List Processing	(Lister)
Form Data Entry	(OLDES)
Hyphenation	(hyphenate_word_, runoff)
Hard Copy Graphics	(Artwork, Graphics Package)
Photocomposition	(Not available)

The next step in the development of WORDPRO involves making these word processing tools part of the standard Multics product. Some, like qedx and runoff are already installed commands. In their case, improvements and new features will be proposed, and better documentation will be provided. Other word processing tools, such as Speedtype and Lister, exist only as private commands. These tools will be reviewed, documented, and installed. Other tools, like photocomposition, do not exist and must be designed and reviewed and then implemented.

Another step in the development of WORDPRO involves organizing the Multics word processing tools. Because of the flexibility of Multics, this can be done several different ways, with each way aimed at the specific needs of different types of Multics users. The goal in each case is to make it easier for Multics users to learn and to use these word processing tools.

One way that the Multics word processing tools can be organized is via documentation. Knowing what tools are available and having complete documentation on each tool would be a great help to the general Multics user. Thus, a WORDPRO reference guide should be developed. It should contain complete documentation on all Multics word processing tools. It should also contain a list of all other Multics commands that are useful for word processing. In order to make Multics word processing easier to learn, real user guide documentation and even online teaching aids should be provided for each word processing tool.

Another way that the Multics word processing tools can be organized is as a limited service subsystem, like the Multics FAST subsystem. This should be a useful and efficient environment for Multics users that are doing just word processing. Additional performance improvements could be achieved by using transaction processing techniques to implement such a limited service word processing subsystem.

Still another way that the Multics word processing tools can be organized is like the stand-alone word processing stations. These word processing systems lack the power, flexibility and ease of use (for an experienced user) that is offered by the various Multics word processing tools. However, these stand-alone word processing stations are easy to learn to use because they combine the functions of terminal input, text editing, and text formatting. They also allow users to input and edit text in logical units, i.e., sentences and paragraphs. Using the power of the Multics command language and the facilities provided by exec_coms and editor macros, the Multics word processing tools can be packaged to provide an interface similar to these stand-alone word processing stations. In fact, it may be possible to develop close replicas of any of these word processing systems.

COMMENTS AND REVIEW

It is hoped that this memorandum will generate a dialogue among Multics word processing users. It will be followed by several other MTBs that will deal with individual word processing tools. The goal is to understand the needs, and to seek the ideas, of the whole Multics word processing community. All readers are urged to respond to this memorandum and any subsequent MTBs dealing with word processing. Please comment about any new features that you like, and say why. Comment about any word processing features that you do not like, and say why. Suggest better ways to do what a proposed new feature does. And most importantly, tell us about any other word processing tools or documentation that you know about that has not been mentioned in this memorandum.

In order to encourage this dialogue about Multics word processing, and in order to coordinate the responses generated by this series of memoranda, please direct all comments to the author. All comments will be kept in the strictest non-secrecy and will be available to all interested parties upon request.

Send mail to: Bill Silver
Honeywell Information Systems
575 Tech. Sq.
Cambridge, Mass. 02139

or send Multics mail at M.I.T or System M to:

Silver.Multics

or call: (617) 491-6300
HVN 261-1206