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To: S&EC Programmers and Staff  
From: John M. Frankovich  
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Subject: ANNOTATED PRINTS OF CS FLEXO PROGRAM TAPES

### Introduction

A program punched on paper tapes, using Flexowriter equipment for conversion by the Comprehensive System (CS) can now have the annotations usually accompanying the program also recorded on the tape along with the program. These annotations appear both on the Flexo tape and on the print of the tape but are ignored by CS. The disadvantages of a longer Flexo tape and print are offset by the availability of an annotated print of the latest version of the program.

### Description

A new word, called the "comment word", has been added to the vocabulary of CS. It is unique in that it is the only word that is completely ignored during the conversion process. The initial character of the word must be the vertical bar, "|", and the word must be terminated by a tab or carriage return. The intermediate characters may be any of the legal Flexowriter characters. The comment word may appear anywhere in a program following a title and before a "START AT."

### Use

The comment word was added to the CS vocabulary in order to allow annotated programs to be punched with annotations on Flexo tape. Once a program is typed in this manner, programmers need refer only to the program print, rather than to print and marked-up manuscript, for information about the program.

Two kinds of format for typescripts are suggested. One is a strictly columnar form with at most one program word and one comment word per line.

For example:

```
fc 100-6-12 SIEGEL
a1,s10 | Stop
a2,s1137 | Select PETR
rd      | Read one character
su0
cpa1    | If char. is zero, stop
clc10   | Move digits in AC
s1149   | SELECT TYPEWRITER
rc      | Record
spa2    | Return
START AT a2
```

If the margin settings of the Flexo typewriter are adjusted while typing, several such columns could be printed on each page.

The second suggested format would have program words typed in rows as at present but with comments interjected.

For example:

```
fc 100-6-12 SIEGEL
a1,s10 | Stop      a2,s1137 | Select PETR      rd
| Read one character      su0      cpa1      | If char. is zero,
stop    clc10   | Move digits in AC  s1149   | SELECT TYPEWRITER
rc      | Record    spa2      | Return    START AT a2
```

Other formats as well as other uses can undoubtedly be devised for the comment word.

#### Relation to the "Fence"

The "fence", i.e., the special word in the CS vocabulary consisting entirely of vertical bars, e.g., "||| ...||", apparently will now be interpreted by CS as a special case of the comment word. However, this will not always be true, for in the past fences were not required to be terminated by a carriage return or tab. This kind of termination is now required in order that Flexo tapes be properly converted by CS.