Programming Staff Note 24

Computation Center
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SUBJECT: Brief Summary of the REVISE Command

The revise command is an editor program for making minor corrections to already existent BCD files; global editing by context is allowed.

To initiate the command, type

(command) alpha beta gamma delta

where (command)= revise if a public command;
ctestn if command under ctestn;
resume revise if a private command.

File alpha beta is to be edited and file gamma delta is to be created or replaced; if delta is omitted, beta is assumed; if gamma delta are omitted, alpha beta are assumed.

Input to the command is of two kinds: deferred action requests (up to 20 maximum) and immediate action requests (unlimited number) Deferred requests are remembered but not executed by the command and kept in an ordered list according to the first line number referred to in the request. Subsequent deferred requests which contain first line numbers identical with those in preceding requests will supersede the preceding requests, regardless of the type of request or the second line numbers, if any. All requests refer to the lines of the unedited file alpha beta and can never refer to the consequences of previous requests. To accomplish multiple changes to lines, repeated applications of the revise command should be made. The current format of all requests, except as noted later, is as follows:

(1 character request)(0 to n spaces)(line number field) (exactly 1 space)(line field)

The line number field is of two forms: locl or locl,loc2 where locl and loc2 normally refer to the first and second line numbers, respectively.

The potential consequences of all deferred requests are printed out for examination at the deferred request review which is issued just before the final file creating step is taken for executing all deferred requests. The steps are interlocked so that the user must initiate the deferred request review and also the final file creating step. The following requests are implemented (where asterisks indicate the more useful requests)

Deferred Requests

*1. G $\left\{\begin{matrix}\text{loc1}\\ \text{loc1,loc2}\end{matrix}\right\}$ α(stringl)α(string2)α

G(for global) causes line loc1 (or loc1 through loc2 inclusive) to be scanned from left to right for all occurrences of stringl of characters and to replace them by string2 of characters. The single character α, used as a delimiter of the strings, is any character (including space) not occurring in stringl or string2. If α, stringl, and string2 are all blanks, the effect will be to leave each line referred to unchanged; this is useful as a deferred print-out mechanism since the unchanged lines will be printed out at the deferred request review. (Normally only the changed lines of a G request will be printed out at the deferred request review.)

2. C $\left\{\begin{matrix}\text{loc1}\\ \text{loc1,loc2}\end{matrix}\right\}$ α(stringl)α(string2)α

C(for change) causes action identical to that of G requests except that only the first occurrence of stringl in each line referred to will be replaced.

*3. D $\left\{\begin{matrix}\text{loc1}\\ \text{loc1,loc2}\end{matrix}\right\}$

D(for delete) causes line loc1 (or loc1 through loc2 inclusive) to be deleted.

*4. I $\left\{\text{loc1}\right\}$ (line field)

I(for insert) inserts (or replaces) a single line with the contents of the line field. Tabs and logical backspaces (i.e.) are meaningful. The normal tab settings are those of MAD (i.e. 1, 12, 73, 73, 72). In I requests the line field starts at the column of tab 0, the first tab issued causes tabbing to the column of tab 1, etc. (Caution: at present there must be a space after loc1 even if tab is the first character in the line field; this will probably be changed to agree with the input command convention.)

Immediate Requests

*1. K {locl}

K(for kill) removes the designated request from the deferred request list.

*2. P {locl / locl,loc2}

P(for peek) prints out line locl (or locl through loc2, inclusive) immediately. (The user, after typing this request, should wait for this typing to occur.)

3. N {locl} (name)

N(for name) replaces by name, one of the intial file names alpha, beta, gamma, or delta according to the value of locl being 1, 2, 3, or 4, respectively. An arbitrary number of spaces may occur before name.

4. T {locl,loc2}

T(for tabset) sets the locl (0 to 4) tab setting to have the column value of loc2. (Note: tab settings need not be in ascending order!)

*5. (Carriage return)

An extra carriage return initiates a deferred request review. If at the completion of a deferred request review, another carriage return is given, the final file creating step will be initiated; if instead any other request, deferred or immediate, is given, existent deferred requests may be modified or further requests added.

6. S

S(for skip) causes the final file creating process to be initiated; no deferred request review will occur.

Further Notes

1. It is permissible to insert and delete zero-lenth strings with G and C requests. For example:

G1C $$A$	inserts an A at the beginning of the line
G1C $$A$	creates a line of A's
G1C $A$$	deletes the first A in the line
G1C $A$$	deletes all the A's in the line.

2. When a variable name is being changed throughout a program with a G request it is important to be sure to know the context of and to locate all occurrences. This could easily be done by a preliminary insection request which, for example, in the case of a symbol named "var" would be of the form: G10,2000 VARVAR$. A minor modification to revise would cause all lines containing the string "var" to be printed in the deferred request review. It would then be a straightforward matter to replace this G request by a suitable list of requests which accomplish the desired changes.

3. Revise might be modified in such a way that after the final file creating step is completed the command goes to dormant in such a way that start initiates a re-entry into the command. Thus when it is desired to make several passes over the same file (as for multiple changes to a line) it would not be necessary to re-type the original command line.

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