IBM

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Office Systems Support

Technical
Bulletin

Office Systems
Customer Assistance Center

IBM Displaywriter System
Technical Manual for the
Technical Coordinator

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IBM DISPLAYWRITER SYSTEM TECHNICAL MANUAL FOR THE

TECHNICAL COORDINATOR

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COMPATIBILITY

STATEMENT OF PURPOSE

This Technical Bulletin is designed to assist the trained Displaywriter
operator. It brings together technical information and applications
that have been developed as a result of questions to and research done
at the Office Systems Customer Assistance Center.

In order to provide information on the programs and features available
on the Displaywriter System, this bulletin is divided into eleven
topics:

- General Information
- Hardware
- Function
- Textpack Applications
- Reportpack Applications
- Chartpack Applications
- General Communications
- Asynchronous Communications
- Binary Synchronous Communications
- 3270 - EDD
- Compatibility

TOPIC: General Information
SUBJECT: Technical Bulletins Available for the Displaywriter
PRODUCT: All Textpacks and Features

There are several Technical Bulletins available for the Displaywriter. These
make excellent reference material. The branch will supply customers with
these books upon request.

Technical bulletins available are:

1.	Running Total Logic	G320-5933-0
2.	Merge File/Text Repetitive Letters	G320-5931-0
3.	Merge File/Text Report Generation	G320-5932-0
4.	IBM 5520 System/IBM Displaywriter Communication and Compatibility Guide	2720-4162-0
5.	Statistical Processing (Column Layout)	G320-5938-0
6.	Communicating Displaywriter Records To and From A Host Computer	G320-5926-0
7.	Office System Communication Handbook	ZZ20-4161-0

TOPIC: General Information
SUBJECT: Displaywriter Program Offerings
PRODUCT: Reportpack

	AVAILABILITY NOTICE	PROGRAM OFFERINGS	OPERATOR'S GUIDE	USER'S GUIDE
LEGAL BILLING	GB30-2095	5798-RNG	SB30-2096	SB30-2097
EDUCATIONAL FUND RAISING	GB30-2246	5798-RNY	SB30-2202	SB30-2201
GENERAL DONOR FUND RAISING	GB30-2196	5798-RNW	SB30-2198	SB30-2197
ASSOCIATION MANAGEMENT	GB30-2245	5798-RNX	SB30-2200	SB30-2199
TITLE INSURANCE	GB30-2247	5798-RNZ	SB30-2204	SB30-2203
DATA PROCESSING				
ADMINISTRATIVE MANAGEMENT	GB30-2248	5798-RPA	SB30-2206	SB30-2205
PERSONNEL REPORTING	G552-0368	5608-AX3	SB30-3003	SB30-3004
APPLICANT PROCESSING	G552-0367	5608-AX2	SB30-3001	SB30-3002
ADMINISTRATIVE SUPPORT	G552-0369	5608-AX1	SB30-2999	SB30-3000
WHOLESALE DRUG	GB30-2336	5798-RRK	SB30-2338	SB30-2337
MEDICAL RECORDS TRACKING	G320-0352-0	5796-PXE	SH20-6276	SH20-6275
MEDICAL FUND RAISING	G320-0351-0	5796-PXD	SH20-6274	SH20-6273
HOTEL/LODGING	G320-0350-0	5796-PXC	SH20-6272	SH20-6271

TOPIC: General Information
SUBJECT: Returning Diskettes
PRODUCT: All Textpacks and Features

When receiving new level programs, the customer should receive from PID a
letter directing them to return the older level as well as a mailer in
which to return them. In the event these are not received, customers
should return the diskettes to:

                by mail: IBM/PID
                                    12/814
                                    Long Meadow Rd., Sterling Forrest
                                    P. O. Box 700
                                    Suffern, N.Y.   10901

                by other means: IBM/PID
                                    12/814
                                    Long Meadow Rd.
                                    Sterling Forrest, N.Y. 10979

TOPIC: General Information
SUBJECT: Diskette Environmental Requirements
PRODUCT: All Textpacks and Features

Temperature   10°C to 51°C (50°F to 125°F)

                          If the diskette has been stored in an area in which the
                          temperature is markedly different from the operating temp-
                          erature of the diskette drive, do the following:

                          1.   Remove the diskette from its shipping container.

                          2.   Wait 5 minutes for the diskette to adjust to the
                               operating temperature of the diskette drive. You must
                               wait longer if you are using a diskette magazine
                               because the diskettes are closely packed in the maga-
                               zine and will change temperature more slowly.

Relative Humidity   8% to 80%

Diskette Magazine   Store diskette magazines so they stand vertically. If the
Storage   magazines contain diskettes, be sure to put the lid on the
                          magazine to lock the diskettes in position and inhibit
                          warping.

Short Term   You may store diskettes flat in their envelopes, in stacks
Storage   of 10 or less, when you need the diskettes for immediate
                          use. If you store diskettes vertically, support them so
                          they do not lean or sag.

Long-Term   If you do not need the diskettes immediately, you may store
Storage   them in their original shipping cartons with each diskette
                          in its protective envelope. Shipping cartons can be stored
                          either vertically or horizontally.

                          NOTE: Do not apply pressure to diskette envelopes or
                          cartons because pressure can warp diskettes, i.e., do
                          not use a hard tipped writing instrument such as a ball
                          point pen after the label is affixed.

TOPIC: General Information
SUBJECT: Compatibility
PRODUCT: All Programs

On feature and program diskettes, the alpha character in the third position
of the VOLUME ID (i.e., ABCDEF) is the compatibility indicator. For the
feature and program diskettes to be compatible, this alpha character on the
feature diskette VOLUME ID must be equal to the alpha character in the same
position on the program diskettes VOLUME ID.

For Example:
    Compatible
    Feature Diskette: Y2FBEA
    Textpack Diskette: FAFBNA

These diskettes are compatible because the third positions are equal.

    Incompatible
    Feature Diskette: Y2FBEA
    Textpack Diskette: FAEAUA

These diskettes are not compatible because the "F" in the third position on
the feature diskette is different from the "E" in the third position on the
Program Diskette.

Displaywriter workstations sharing a printer can each use different levels
of programs.

All programs and feature should maintain 3rd character compatibility with
this exception: Languagepack and Languagepack 2 may have a lower letter
than the Textpack. For example: ZIEAJ will work with FAFBNA.

When combining program diskettes, all (textpack and features) must be
compatible.

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TOPIC: General Information
SUBJECT: Diskette Capacity
PRODUCT: All Textpacks

Diskette 1   ●   74 user data tracks
(Type: 256 Byte)   ●   15 sectors per data track
Part No.2305845   ●   256 bytes per sector.
                           ●   TOTALS: 1,110 sectors
                                         284,160 bytes.
                           ●   Maximum number of document names - 101

Diskette 2D   ●   74 user data tracks (double density)
(Type: 256 Byte)   ●   52 sectors per data track
Part No.1766872   ●   256 bytes per sector.
                           ●   TOTALS: 3,848 sectors
                                         985,088 bytes.
                           ●   Maximum number of document names - 303

TOPIC: General Information
SUBJECT: % Available On Work Diskette
PRODUCT: All Textpacks

It has been established that the operator should keep 25% available on a
Type 1 diskette. 25% of a Type 1 diskette allows for 83,333 bytes of
information for revisions and $SYSDOC$'s. An approximate equivalent amount
on a 2D would be 8.4%. (8.4% X 999,999=83,999). Using a figure of 10%
would be appropriate for 2D's. This would allow a reasonable amount of
revision and $SYSDOC$ space on the work diskette, and give the operator 15%
more usable space.

TOPIC: General Information
SUBJECT: Paper Sizes
PROGRAM: All Textpacks

Following are the character positions of the right edge and last line for the 9 different paper sizes specified in the Page Format Menu.

PAPER OR ENVELOPE SIZE	RIGHT PAPER EDGES			LAST TYPING LINE*
	10 PITCH	12 PITCH PSM	15 PITCH	6 LINES PER INCH
1. (210X297MM OR 8.27X11.69IN) (A4)	83	99	124	70
2. (298X210MM OR 11.69X8.27IN) (A4L)	117	140	175	49
3. LETTERHEAD (216X280MM OR 8.5X11IN.) (P4)	85	102	127	66
4. LETTERHEAD, SIDEWAYS (280X216MM OR 11X8.5IN.) (P4L)	110	132	165	51
5. LEGAL (216X356MM OR 8.5X14IN)	85	102	127	84
6. LEGAL, SIDEWAYS (356 x 216 mm or 14 x 8.5 in)	140	168	210	51
7. ENVELOPE, STANDARD #10 (241X105MM OR 9.5X4.125IN)	95	114	142	24
8. ENVELOPE 233X165MM OR 9.16X6.48IN)	92	110	137	38

9. OTHER: MAX PRINTING POSITION (HORIZONTAL)	10 PITCH	12 PITCH	15 PITCH
5215 PRINTER = 12.5 IN. WRITING LINE PAPER SIZE = 15.5 IN. MAX.	125	150	N/A
5218 PRINTER = 13.25 IN. WRITING LINE PAPER SIZE = 2 IN. MIN	132	158 (PSM:130-158)	198
5228 PRINTER = 17 IN. WRITING LINE PAPER SIZE = 2 IN. MIN = 19 IN. MAX.	170	204 (PSM:170-204)	255

(Continued)

VERTICAL PRINTING POSITION IN MM

    MINIMUM = .1MM
    MAXIMUM = 999.9MM OR APPROX. 39.4 INCHES

        Fractional millimeters may be entered. Example: 24.5mm. Note that the
        fractional millimeter may not exceed 1 digit to the right of the decimal
        point.

ADDITIONAL PAPER SIZE INFORMATION

    SHEET FEED PAPER SIZES
                                        MIN   MAX
        5218   5.83 IN.   11.69 IN.
        5228   5.83 IN.   11.69 IN.

    TRACTOR FEED PAPER SIZES:

        5218 (PIN-TO-PIN)   2.0 IN.   14.5 IN.
        5228 (PIN-TO-PIN)   2.0 IN.   17.5 IN.

    PIN FEED PLATEN (5215)

        PIN-TO-PIN   5.25 IN.   13.13 IN.

*   "PAGE END" CAN BE AT THE BEGINNING OF THE NEXT LINE.

TOPIC: General Information
SUBJECT: Continuous Forms Creep
PRODUCT: All Textpacks

On continuous forms with more than one form per fanfold, the forms may
creep up or down. This occurs when the length of an individual form is
not an exact multiple of one-half inch. In this case the form length can
not be entered in millimeters with more than one significant digit to the
right of the decimal.

Example:

Fanfold paper with 12.5 inches between folds and 3 forms between fanfolds.
The length of each form would be 4.16 (4.16 = 4.16666···) inches or
105.83 millimeters. When entering the paper length, only 105.8mm can be
entered, therefore the printing on the forms would creep up.

One work-around is to do the job with three units to a page. This
solution will work with merge, but cannot be used with merge file/text.

TOPIC: Hardware
SUBJECT: Memory Card Characteristics
PRODUCT: All Textpacks

Please remember to include the <u>suffix</u> as well as the memory size when a
Customer Engineer (CE) is <u>required</u> for intermittent memory problems (FFFA,
etc.) This information is necessary so the CE will know what memory
card(s) to take on site:

192<u>A</u>

192<u>C</u>

224<u>B</u>

224<u>C</u>

The following lists some of the system conditions and the Problem Deter-
mination Guide steps that require this memory information:

801	Step 28	000 801
xx (blank screen)	Step 29	000 801
LED's on	Step 33	000 800
9xx	Step 77	000 900

TOPIC: Hardware
SUBJECT: Diagnostic Code *02* or *20*
PRODUCT: All Textpacks

Error code *02* or *20* appearing at the bottom left of the screen when
attempting to load a program diskette indicates a damaged program diskette
or failing diskette drive. If an error code *02* or *20* is encountered
on an original program diskette, and the program diskette can be loaded
in the opposite diskette drive slot, attempt to access a document on a
known good work diskette in the suspected failing drive with the program
loaded in the operational drive.

    1)   If this operation is successful go to (A).
    2)   If unsuccessful, run the Problem Determination Diskette (PDD).
         If PDD does not load or no SRN is received, call the OSCAC
         Problem Queue.

A)   Duplicate the program diskette to the suspected failing drive.

B)   Attempt to Initial Program Load (IPL) the duplicated program diskette
in both drives.

    1)   If the program load is successful, the problem is damaged
         programs.
    2)   If the program load is unsuccessful, call the OSCAC Problem Queue
         with the information Error Code *02* or *20*, program diskettes
         duplicated and will not load in both drives.

TOPIC: Hardware
SUBJECT: *11*
PRODUCT: All Textpacks

If an operator tries to IPL and nothing happens i.e., the Logo and *11* stays on
the screen, power off, check cable #8 and make sure it is in all the way.
This plug is secured by screws and may become loose.

TOPIC: Hardware
SUBJECT: Basic Assurance Test (BAT) Codes 3 & 8
PRODUCT: All Textpacks

3   The system <u>cannot</u> post this number. It is not in the
           program.

8   The system <u>cannot</u> post this number. It is not in the
           program. <u>However</u>, some users have mistaken the zero
           (0) with a dot in the center of it as an 8.

TOPIC: Hardware
SUBJECT: Custom Printwheels and Elements
PRODUCT: All Textpacks

No currently announced/supported keyboards will differentiate between upper
and lower case comma and period. When the Displaywriter encounters a
period or comma in the data stream, it defaults to a single hexidecimal
value (e.g., 6B for comma, 4B for period) regardless if it is typed in
upper or lower case.

When print test is accessed, the <u>printer electronics</u> causes the printer to
access and print each of the 96 petals on the printwheel and a character
put on the printwheel in the uppercase period or comma would print during
this test, but it still could not be accessed from the keyboard.

Thus, a customer should never have a custom printwheel designed with
special graphics located above the period or comma on the keyboard, as they
are inaccessable from <u>any</u> keyboard ID.

TOPIC: Hardware
SUBJECT: Paper Sensor
PRODUCT: All Textpacks

The paper sensor becomes active when bottom edge of paper is within 38.9mm
of the writing line.

TOPIC: Hardware
SUBJECT: Printer Error Message
PRODUCT: All Textpacks

If the "Printer Error" message is received on only one page of the document and all other documents print fine:

1. Determine which line on page message occurs on.
2. Delete that line and the next two lines.
3. See if it prints OK. (It probably will.)
4. Add the lines back one at a time printing the page each time you add a line.
5. Either the whole page will print with no problem; or you will identify the line that is creating the printer error message.
6. If you still get the printer error message on one line, try to change the sequence of the input in some way. For example, take out an underscore.

TOPIC: Hardware
SUBJECT: Pinfeed Platen, Tractor Feed & ½ Index
PRODUCT: All Textpacks

5215 printers with pinfeed platen attached will accept only ½ level down (subscript).

5218 and 5228 printers with tractor feed mechanisms attached will accept both ½ level up (superscript) and ½ level down (subscript).

TOPIC: Hardware
SUBJECT: Printer Escapement
PRODUCT: All Textpacks

Horizontal distance (escapement) is expressed in units of .423mm or 1/60th inch.

A character in 10 pitch is equivalent to 6/60th, or 1/10 inch.

A character in 12 pitch is equivalent to 5/60th, or 1/12 inch.

A character in 15 pitch is equivalent to 4/60th, or 1/15 inch.

Characters in Proportional Spacing are allocated different numbers of units per character.

Based on the pitch selected the printer positions itself for each character or space by assigning the above values.

TOPIC: Hardware
SUBJECT: Printer Message 54
PRODUCT: All Textpacks

54 appearing on printer panel after changing printwheel can be caused by not removing protective shipping tape from printwheel.

Solution: Remove printwheel, remove tape, retry.

If the printwheel cannot be removed, power printer off, then on. This will often "home" the printwheel so it can be removed.

TOPIC: Hardware
SUBJECT: Vertical Ruling
PRODUCT: All Textpacks

IBM supports vertical ruling on the 5218/5228 printwheel printers using the symbol font. Due to the nature of bidirectional printing, any backlash or play between the leadscrew and followers will cause the vertical bar to be printed slightly off-center on subsequent lines.

By using a tab and zero index carrier return, after the carrier return ending each line, printing is done in one direction only. This procedure may resolve unacceptable results due to mechanical consideration referenced above

TOPIC: Function
SUBJECT: Benefits of Condense
PRODUCT: All Textpacks

Advantages of condense when diskette full message displays:

1. Depending on how text was recorded onto the diskette prior to condense, condensing may "free-up" a significant amount of space.

2. Improves response time when working with documents recorded on the diskette.

3. Potentially less overhead after condensing, so percent available may increase.

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TOPIC:        Function
SUBJECT:      Print Index of Diskette Contents
PRODUCT:      All Textpacks
```

When the Displaywriter prints the index of diskette contents, it uses the document format defaults on the program diskette.

Example:

     If the default on the program diskette is legal size paper, it will print on legal size paper.

     If the bottom drawer is specified as a default, the paper is still be drawn from the top drawer.

Insert correct paper size in top drawer when printing the index.

TOPIC: Function
SUBJECT: Document Name on Index
PRODUCT: All Textpacks

A document name can be up to 44 characters long.

When displaying the index of contents (or when document name is displayed
on the status line), only the first 30 characters are displayed with Text-
packs E through 2 and the first 20 with Textpacks 3 through 6.

Feature diskettes reflect the length of the textpack IPL'd.

The full name is displayed when the document name prompts and when
printing the index of contents.

TOPIC: Function
SUBJECT: Message/"Cannot Recover Index"
PRODUCT: All Textpacks

When the alternate Extended Header Label (EHL) condition is detected and index recovery is completed, the operator is prompted for a duplicate recovery diskette via the message "Cannot recover index on this diskette. Another diskette will be needed".

Duplicate Recovery conceptually means that a given diskette is to be recovered onto another diskette instead of 'in place'.

The duplicate recovery diskette must be the same type as the original diskette needing recovery.

The duplicate recovery diskette Volume ID is not retained on the menu.

The original diskette needing recovery remains in the same state.

TOPIC: Function
SUBJECT: Print List of Printer Elements for Equation Print
             (Multi-Pass)
PRODUCT: Textpack 6

In a shared printer environment, if operator chooses to "Print List of
Printer Elements" from the Work Diskette Tasks menu and the printer is not
available at the time, the operator will receive the message "Printer
Unavailable". The request for printing the list is automatically
cancelled and is not automatically re-queued for printing when the printer
is available.

TOPIC: Function
SUBJECT: Combined Program Diskette with Text Data on it
PRODUCT: Textpacks 4 and 6

One can create a combined or erase the program portion without affecting
the work diskette portion.

A work diskette can be condensed to a combined program without disturbing
the program portion. The entire work portion of the combined diskette can
be erased using Erase Diskette in the Work Task selection.

In other words, the work diskette portion of the combined program diskette
can be treated just like a regular work diskette.

TOPIC: Function
SUBJECT: Combining Program Diskettes
PRODUCT: Textpack 4, 6 and all Features

When a combined program diskette is created, the feature diskettes that can
be added will depend on the amount of space each feature diskette will use.
Because this amount will vary, the following chart can be used to help
determine which specific feature diskette can be added after the textpack
program diskettes have been combined. (Note: G level diskettes were used
for testing.)

NAME OF DISKETTE	PERCENT OF SPACE USED BY DISKETTE
Textpack 4	54%
Texptack 6 (Vols 1-3)	61%
Spelling Aid (Vol 4)	19%
Extended Legal Dictionary	23%
Reportpack	18%
Asynchronous Communications	10%
Bisynchronous Communications	17%
Mag Card Conversion	8%
Chartpack	9%
3270 AW	11%
3270 DSC	13%
EDD	24%
3277 DE	10%

How to Use Chart:

To determine which feature diskettes can be added, take the textpack
program percent, add the percents for the feature diskettes wanted. If the
sum does not exceed 100%, then the diskettes can be combined. If the sum
does exceed 100%, there is not enough space to combine the diskettes.

Examples that will not work:

    TP6 + Extended Legal Dictionary + Reportpack = 102%
    (Message: Spelling Aid will not fit on diskette.)

    TP6 + Extended Legal Dictionary + Bisync = 101%
    (Message: Spelling Aid will not fit on diskette.)

Examples that will work:

    TP4 + Reportpack + Chartpack + Bisync = 98%

    TP6 + Extended Legal Dictionary + Chartpack = 93%

    TP6 + Extended Legal Dictionary + 3270 DSC = 97%

TOPIC: Function
SUBJECT: Create New Combined vs. Update Combined
PRODUCT: Textpack 6

When customers receive updated program diskettes (new program within the same level), Book 2 of Operator Training correctly instructs them to use "Update Combined Program Diskette Tasks". In general, the customer should always use Update because it gives them more flexibility in adding features and automatically duplicates the Spelling Supplement, Machine Setups and text documents. The difference between the two functions is as follows:

Create New
Combined Program
Diskette

1. All source diskettes (textpack & feature) must be 1D diskettes. ("Cannot Create New Combined Program Diskette IPL with 1D instead of 2D".)

2. Must IPL with the new level Volume 1 and you are prompted for Volume 3, then Volume 2 (in that order).

3. Machine Setups, Spelling Supplement and text documents must be duplicated as a separate step.

Update Combined
Program Diskette

1. Source diskettes may be either 1D or 2D.

2. In the case of new software release with the same level, IPL with the 1D volume and you are prompted for Volume 3, then Volume 2 (in that order). Feature diskettes may be combined from another combined program diskette.

3. If you want to add a feature diskette to an existing combined program diskette (you will come out with a completely new combined diskette) you must IPL with the existing combined program. Displaywriter will automatically duplicate Volumes 1 through 3 from the combined program. In the Combine Feature Selection menu, possible choices 1 and 2 will change** if the feature is already on the original combined program diskette. For example, the Original Combined program contains Reportpack, but no communications:

ID	ITEM	CHOICE	POSSIBLE CHOICES
a	Asynchronous Feature	2	1 = From Diskette 2 = Do Not Combine
b	Binary Synchronous Feature	2	1 = From Diskette 2 = Do Not Combine
c	Reportpack Feature	2	1 = From Diskette 2 = Retain From 2D**

You can combine Reportpack from the original combined program and add Async and Bisync from 1D diskettes. Displaywriter will prompt you to load each diskette.

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4.   In the last menu ("Additional Updates from Combined Program
     Diskette") the operator can automatically Update Machine Setups,
     Update Spelling Language Supplements and Duplicate Data (text
     documents).

TOPIC: Function
SUBJECT: Duplicate Machine Setups
PRODUCT: All Textpacks

The following chart lists the defaults (if available) that can be
personalized on a program diskette. The chart also lists the defaults that
can be duplicated onto new program diskettes by using Duplicate Machine
Setups.

Notice that all personalized defaults can be duplicated except for menu
abbreviations.

Defaults:	TPE	TP1	TP2	TP3	TP4	TP6
Doc Fmt	Y	Y	Y	Y	Y	Y
Alt Doc Fmt	Y	Y	Y	Y	Y	Y
Prtr Desc	Y	Y	Y	Y	Y	Y
Workstation Desc	Y	Y	Y	Y	Y	Y
Paginate Docs	N/A	Y	Y	Y	Y	Y
Math Fmt	N/A	N/A	N/A	Y	Y	Y
Check Doc	N/A	N/A	N/A	N/A	Y	Y
Change Menu Abbrev	N/A	N/A	N/A	N/A	N	N

Y   = Yes   (available and can be duplicated)

N   = No   (available but cannot be duplicated)

N/A =   Not available on this program

Things to remember:

1. Duplicate Machine Setups can only be used on Textpack programs within
    the same number. (Ex: TP4 to TP4) It can be used between levels of
    some Textpack (i.e. F to G within TP4) If a Displaywriter is upgraded
    to a higher textpack program, Duplicate Machine Setups cannot be used
    to copy the personalized defaults.

2. When Duplicate Machine Setups is complete the message "Machine setup
    is duplicated" will display. If an operator immediately reviews the
    Textpack Program Diskette menu, the Document Format, Alternate Format,
    and Math Format menus will not display the personalized defaults.
    However, the printer description, workstation description, paginate
    document, and check document menus will display the new personalized
    defaults. The operator must re-IPL the Displaywriter System in order
    for all personalized defaults to take effect. (TP2, TP3, TP4, TP6)

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3. If an operator is using TPE or TP1, the new personalized defaults will take effect immediately without having to re-IPL the Displaywriter System.

4. In the Prompts and Messages book, the operator is instructed that there is no action required when the message "Machine setup duplicated" is displayed. This is incorrect. The operator must re-IPL if using a textpack program above TP1. None of the training manuals advise the operator of the correct action required.

5. Change Menu Abbreviations - There is no way to duplicate personalized abbreviations from one program diskette to another.

TOPIC: Function
SUBJECT: Engraved Keyboard - Definition & Restrictions
PRODUCT: Textpacks E, 2, 4 and 6

An option called Engraved Keyboard is available on Textpacks E, 2, 4, and
6.

Engraved Keyboard offers 2 options:

    1 = Before First Alternate
    2 = After Fifth Alternate

Simply, this means:

    1 = IPL with Engraved Keyboard
    2 = IPL with First Alternate Keyboard

TOPIC: Function
SUBJECT: Spelling Criteria
PRODUCT: All Textpacks

Spell defines a word as a string of alphabetic characters with or without
embedded apostrophes. It will ignore punctuation, numbers and instructions.

Only alphabetic characters will be recognized in the supplemental
dictionaries.

Codes can be located <u>around</u> a word but they cannot be located <u>within</u> a
word.

> Example: Customer <u>S</u>et <u>U</u>p In this example, it highlighted the
>   "C", the "ustomer" etc.

The system does not recognize or highlight numbers. It will look at an "l"
if used instead of a "1".

Syllable hyphens are ignored and may cause the word to be highlighted
because it puts 2 words together when it ignores the syllable hyphen.
Words broken by a syllable hyphen at the end of one line and continued on
the next line will be reconstructed if the character sequence is:

1. "part of word" + syllable hyphen + CR + "rest of the word"

2. "part of the word" + syllable hyphen + CR + "one or more tabs" +
    "rest of the word"

3. Either of the previous forms with embedded syllable hyphens in
    addition to the line breaking syllable hyphen.

Spell is not case sensitive; it does not matter if the words are upper or
lower case.

TOPIC: Function
SUBJECT: Spell Checking Long Words
PRODUCT: All Textpacks

A misspelled word that is over 64 characters long will not be spell
checked.

```
TOPIC:        Function
SUBJECT:      Spell, Hyphenation, Pagination and Underscores
PRODUCT:      Textpacks 4 and 6
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The enhanced spelling, hyphenation, pagination package works very well when using Begin Underscore and End Underscore.

If Word Underscore is used instead of Begin and End Underscore, a character sequence of word underscore, hyphen, carrier return could occur in the middle of a word. When doing spelling/hyphenation/pagination, the operator is only faced with choices of hyphenation decisions and/or spelling decisions--they cannot cursor to make any other changes that might be necessary because of having used the Word Underscore rather than Begin/End Underscore. Therefore, the output may be incorrect. After spell/hyphenate/ paginate is complete, further revision may be necessary.

An example of what might happen is:

This is a test for spelling and hyphenation using hard-ware, maintenance and other large words such as conversations near the right margin.

You might even get something that will look like this compro-mise when using this function with word underscore.

TOPIC: Function
SUBJECT: Spell Check Overstruck Words
PRODUCT: Textpacks 1, 2, 3, 4 and 6

A misspelled word followed by required backspaces and underscores, required
backspaces and tabs, or overstruck using required backspaces followed by any
of the characters listed below will not be video-reversed when spell
checked. It will be counted in the number of words marked and Find Spell
will position the cursor at the beginning of the word.

A misspelled word overstruck using the Block Overstrike feature will be
video-reversed when spell checked no matter which of the following
characters serves as the overstrike.

o	±	;
!	1	'
@	2	2
#	3	:
$	4	"
%	5	3
¢	6	§
&	7	'
*	8	.
(	9	/
)	0	¶
	-	?
+	=	
½	¼	
]	[	

```
TOPIC:        Function
SUBJECT:      Highlighting Blocks of Text
PRODUCT:      All Textpacks
```

The operator is cancelling spell highlighting and whole blocks of text become highlighted. Also highlighting appears to jump from blocks of text to other blocks of text.

The reason is that the end spell mark was deleted.

Press find + spell and delete the begin spell mark that was originally paired with the end spell mark that was deleted.

TOPIC: Function
SUBJECT: Storing Extended Supplement on Combined Program
PRODUCT: Textpack 6

When the combined program diskette contains both the standard dictionary
and the extended dictionary, how does one store a supplemental dictionary
on the combined program to correspond with the extended dictionary?

When the SPELLING TASKS is selected in the TASK SELECTION MENU, the
program determines if the standard dictionary and its corresponding
stored supplement or the extended dictionary and its corresponding stored
supplement will be loaded into memory and become the active dictionary
specified (standard or extended) in the CHANGE CHECK DOCUMENT DEFAULTS
MENU on the textpack program diskette.

When selecting STORE SUPPLEMENT, the supplemental dictionary in memory
will be stored with the active dictionary.

If the standard dictionary is active, and one needs to store a supplement
to be used with the extended dictionary, the following procedure may be
used.

1.   Return to the TEXTPACK PROGRAM DISKETTE TASKS and change the dictionary
      default to extended.

2.   Return to the TASK SELECTION MENU and select SPELLING TASKS.

              The extended dictionary will be active dictionary. A
              supplemental dictionary can be loaded and stored by
              selecting LOAD SUPPLEMENT and STORE SUPPLEMENT.

TOPIC: Function
SUBJECT: Loading Temporary Extended Supplement When Using Combined
             Program
PRODUCT: Textpack 6

When the combined program diskette contains both the standard dictionary
and the extended dictionary, how does one temporarily load a supplemental
dictionary into memory to be used with the extended dictionary?

When the SPELLING TASKS is selected in the TASK SELECTION MENU, the
program determines if the standard dictionary and its corresponding
stored supplement or the extended dictionary and its corresponding stored
supplement will be loaded into memory and become the active dictionary.
This determination based on the default dictionary specified (standard or
extended) in the CHANGE CHECK DOCUMENT DEFAULTS menu on the textpack
program diskette.

After loading the spelling task, if the stored supplement should not be
used during the spell check, it can be cleared by using the CLEAR
SUPPLEMENT task.

When LOAD SUPPLEMENT is selected, the specified supplement will be added
to the current supplement (if any) and reside in memory with the active
dictionary.

When the standard dictionary is active, and it is desired to check a
document using the extended dictionary, the normal procedure is to select
the extended dictionary in the CHECK DOCUMENT menu. When this selection
is made, the current dictionary (standard) and supplement are replaced by
the extended dictionary and supplement.

For example, if a supplement was "loaded" in the SPELLING TASKS menu
prior to entering the CHECK DOCUMENT menu and in the CHECK DOCUMENT menu
the extended dictionary is selected, then the active dictionary (stan-
dard) and its supplement is replaced with the extended dictionary and its
supplement. Therefore, the supplement that was originally loaded has
been replaced.

The following procedure may be used to spell check a document using the
extended dictionary and a temporary supplemental dictionary.

Procedure:

1. Return to the TEXTPACK PROGRAM DISKETTE TASKS and change the dictionary
    default to extended.

2. Return to the TASK SELECTION MENU and select SPELLING TASKS.

            The extended dictionary will be the active dictionary. A
            supplemental dictionary can be loaded selecting LOAD
            SUPPLEMENT and the document may then be spell checked.

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TOPIC: Function
SUBJECT: Comparison of Dictionaries
PRODUCT: Texpacks 1, 2, 3, 4, 6

Check Document task (spelling verification) is available on all textpacks above TPE.
TP6, however, offers additional spelling capabilities of Spell Aid, extended
dictionaries, and a larger user-created supplement. The following chart offers a
comparison of the standard and extended dictionaries.

	STANDARD DICTIONARY	EXTENDED GENERAL BUSINESS DICTIONARY	EXTENDED LEGAL DICTIONARY
DESCRIP- TION:	Part of TP2, 4, & 6 program.	Part of TP6 Program - "G" level or higher (available in U.S. or	Feature that is used only with TP6 - "G" level or higher (available in U.S. or U.K. English only)
HOW TO ACQUIRE:	TP 2, 4, 6 regular textpack program.	Textpack program - 5608 TR6.	Feature - 5608 SRB Extended Legal Dictionary Charge - $195.
# OF WORDS VERIFIED:	50,000* words approx.	130,000* words approx.	150,000* words approx.
SUPPLEMENT:	4,500 chars	16,000 chars	16,000 chars
VERIFICA- TION METHOD:	Uses hexadecimal equivalent of root words, prefixes, and suffixes to verify spelling.	Uses filter method with a compacted list of complete words. Most valid forms of the words are explicitly stored. Is a subset Extended Legal.	Same as Extended but has a larger list of complete words which includes approx. 20,000* legal terms.
VOLUME ID:	Vol 2 of TP 2, 4, 6	SCxxxA Vol 4 of 4 (TP6 only)	SLxxxA Vol 1 of 1 (Use with TP6 only in place of Vol 4 of 4)
CAN COMBINE ON 2D?	YES, automatically combined since Vol 2 is part of any combined program.	OPTIONAL on TP6 (May combine or use as separate 1D diskette.)	OPTIONAL on TP6 (May combine or keep as separate 1D diskette.)
TO COMBINE:	Follow prompt to load Vol 2 of textpack program.	On Combine Feature Selection menu, make Spelling Aid = Yes. When prompted, load Vol 4 of TP6. (SGxxxA)	On Combine Feature Selection menu, make Spelling Aid = Yes. When prompted, load Vol 1 of 1. (SLxxxA)

(Continued)

	STANDARD DICTIONARY	EXTENDED GENERAL BUSINESS DICTIONARY	EXTENDED LEGAL DICTIONARY
% USED WHEN COMBINED:	N/A	19%**	23%**
TO ACCESS:	On TP2 & 4, the standard dictionary is used automatically when Check Document is selected. On TP6, in the Check Document menu, make Dictionary = Standard. Load the appropriate diskette when prompted.	On Check Doc menu, make Dictionary = Extended. Load Vol 4 of TP6 or combined TP6 program when prompted.	On Check Doc menu, make Dictionary = Extended. Load Vol 1 of 1, or combined TP6 program when prompted.
LOADING TIME FROM CHECK DOC MENU:	7.7 sec (approx.)	11.0 secs (approx.)	13.2 secs (approx.)
PERFORMANCE TIME:	Approx. 2-3 times faster than with either extended dictionary.	Takes approx 2½ times longer than standard dictionary.	Takes approx. 2½-3 times longer than standard dictionary

*This number is referring to the approximate number of words that can be verified during the Check Document task. It is not referring to the actual number of words stored in the dictionary. The difference in these numbers is due to various forms of the words, i.e., singular, plural, possessive, etc.

**When creating a combined program diskette on TP6, Vols 1-3 use 61% of diskette space, thus leaving only 39% space available. Since the Extended Legal Dictionary (23%) and the Reportpack (18%) feature diskettes take up 41% of diskette space, they cannot be combined on the same TP6 program diskette. However, the Extended General Business Dictionary (19%) and Reportpack (18%) feature diskettes can be combined on the same TP6 program diskette.

```
TOPIC:       Function
SUBJECT:     Columns
PRODUCT:     Textpack 3, 4 and 6
```

Column functions operate only <u>in</u> page boundaries:

Following keys are available during column revise:

- ° Arithmetic
- * CANCL
- * DELETE
- * MOVE
- * CONTROL
- * LINE ADJUST
- * Screen Format

- ° REQST
- * ENTER
- * MSG/REPLY
- * COPY
- * SPELL KEY (AFTER FIND)
- * Keyboard Change
- * Find
- * Center

All single-byte controls <u>except</u> Required Tab, Index, Page End, Required Page End and Begin and End <u>Underscore</u>.

```
TOPIC:      Function
SUBJECT:    Column Layout Menu
PRODUCT:    Textpacks 3, 4 and 6
```

When reviewing the column layout menu there are "t"'s or small underscored "a"'s (that should not be there) mixed in with my normal "a"'s. The tab settings are no longer correct.

```
EXAMPLE:  _aaa _ataaa
             or
        AAAaAAA a AAAa
```

NOTE: When the column is initially layed out, the Begin Table instruction identifies how much space should be between each column (or you may have manually designated the amount of space between your columns in the column layout menu).

A format change is generated to set tabs correlating to the column positions.

When the Begin Table is brought into an area where the tabs are not identical to the ones generated in the original format change, the column layout menu will reflect the fact that the tabs are incorrect.

It does this by adding the unexpected "t"'s or smaller "a"'s to the menu.

CAUSES

The current tab settings are not the same as the original tab settings when the Begin Table code was generated.

-    You did not set the identical tab settings in the Document Format prior to using GET to get a Begin Table code (that did not have a format change preceeding it).

RESOLUTION

1)   Press CANCL to return to the typing area.

2)   Go to the Document format and revise the tab settings to coordinate with the needed tab.

3)   Go to the typing area. Verify the Begin Table is not preceeded by a format change. If it is, delete the format change.

4)   Go to the Begin Table instruction and press Code plus Layout.

5)   The layout menu should reflect the correct tab settings.

6)   Press ENTER to return to the typing area.

7)   A Format Change will preceed the Begin Table code that contains the correct tab settings.

(Continued)

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CAUSE

The format change preceeding the Begin Table code does not have the correct tab settings.

- You changed the tab settings in the format change preceeding the Begin Table instruction.

OR

You may have tried to <u>add</u> a format change preceding the Begin Table code where no format change existed.

RESOLUTION

1) Press CANCL to return to the type area.

2) Turn on Display codes. Delete the format change preceeding Begin Table code and also the Begin Table code.

   Delete the End Table code as well as the format change following it.

3) Move the cursor to the left margin for the first line of the table.

4) Press COLUMN LAYOUT and re-layout the table. Do <u>not</u> press ENTER.

5) Press the cursor arrow down key until you are past the last line of the table.

6) Press ENTER.

   A correct format changes and the Begin and End Table instructions will be inserted automatically for you.

OR

CAUSE

You accidentally deleted the format change that preceeded your Begin Table instruction.

RESOLUTION

1) Press CANCL to return to the typing area.

2) Turn on Display codes. If a format change preceeds your Begin Table code, delete it as well as the Begin Table code.

   Also delete the End Table code as well as the format change following it.

3) Move the cursor to the left margin for the first line of the table.

4) Press COLUMN LAYOUT and re-layout the table. Do <u>not</u> press ENTER.

5) Press the cursor arrow down key until you are past the last line of the table.

6) Press ENTER.

A correct format changes and the Begin and End Table instructions will be inserted automatically for you.

TOPIC: Function
SUBJECT: Tables Separating From Text
PRODUCT: Textpacks 3, 4 and 6

A Begin Table code acts as a Keep instruction. Therefore, tables can be separated from preceding text during pagination if the entire table cannot fit on the same page.

To prevent the separation of text and tables during pagination, place a Begin Keep instruction on the line preceding the Begin Table code at the left margin and place an End Keep instruction immediately after the Begin Table code.

TOPIC: Function
SUBJECT: Decimal Tab and Flush Right Tab Misaligning
PRODUCT: All Textpacks and Mag Card

Situation:

Operator is revising a table that was read in from Mag Cards. Last column
is a Decimal Tab (typing numbers with no decimal point) or a Flush right
tab. Since the material was typed on a Mag Card, soft carrier returns end
the lines.

When the operator revises the last column an extra space is inserted by the
Displaywriter to correspond with the soft carrier return. Revised numbers
do not align with unrevised numbers.

Solution:

If using Textpack 3+, can globally replace carrier returns with required
carrier returns.

If revising using Textpacks E, 1 or 2, delete carrier returns and replace
with required carrier returns.

TOPIC: Function
SUBJECT: Decimal Tabs
PRODUCT: All Textpacks

If you type an uppercase period in a number, the Displaywriter treats it as it does a lowercase period.

Example:

You have a decimal tab and need to type the following number:
DF.8,000.90
The Displaywriter will line the number up at the first period.

Workaround:

Use a flush right tab instead of a decimal tab.

TOPIC: Function
SUBJECT: Colon Tab
PRODUCT: All Textpacks

It is possible to invoke a Colon Tab. This is not displayed as an option
in Margins and Tabs menu; however, it will work. It can also be invoked in
the Column Layout menu (see page 51). This will not be supported in the
United States as a function in publications or in the menu as an option.
But if you know about it, you can actually create the Colon Tab. (Depress
Colon Tab in the Margins and Tabs menu.) It is a function in the Nordic
Languages.

TOPIC: Function
SUBJECT: Comma, Decimal, and Colon Tab Alignment in Column Layout
PRODUCT: Textpacks 3, 4 and 6

When laying out columns, only one type of decimal alignment tab is active. The default is the decimal tab. If you have a column that needs comma tab alignment, the default must be changed.

The character for decimal tab alignment is changed by pressing the MATH REQUEST key while laying out your columns. When pressing MATH REQUEST, no menu displays; however, the default for alignment is changed. The characters available for alignment are period, comma, and colon, with only one active at one time. Since the default is period, pressing the MATH REQUEST key once makes comma tab active, and pressing the MATH REQUEST key a second time makes colon tab active. In other words, they are in a ring; pressing MATH REQUEST a third time completes the "ring" making the period tab active for decimal alignment.

EXAMPLE: To create comma tab decimal alignment in a column
              layout, the operator would do the following:

        • Code column layout

        • Press MATH REQUEST once (comma tab now is active)

        • Type characters for column length and press the comma
          key for decimal (comma) alignment

51

```
TOPIC:        Function
SUBJECT:      Column Revision with Format Changes
PRODUCT:      Textpacks 3, 4 and 6
```

A tabular document was set up using column layout. It contained format changes to change line spacing from single to 1½ and back. When the document was converted to a table using column layout, the change formats end the column revision process.

```
    i.e.,  123   When delete column is pressed, only thru
           456   "789" is highlighted.
           789
      F]   101
           567
```

The format changes must be deleted to perform revision on entire column.

This could be a positive workaround for people who want to only move or delete part of a column.

TOPIC: Function
SUBJECT: Non-Text Columns Adjusting
PRODUCT: Textpack 3, 4 and 6

Non-text columns being revised appear to be "adjusting" (moving words/numbers from one line in a column) when cursoring through the column.

Cause: The column is actually layed out as a "text" column.

Solution: Revise column layout to add tabs so columns are "non-text".

TOPIC: Function
SUBJECT: Column Layout and Page Boundary
PRODUCT: Textpacks 3, 4 and 6

Column operations within tables work only within page boundaries.

A page end code acts as an end table. For multiple pages, operator should
use a "dummy" layout and get Begin Table Code and format change at beginning
of each page.

TOPIC: Function
SUBJECT: Revise Column Type
PRODUCT: Textpacks 3, 4 and 6

To change a flush right tab to flush left tab in 1st column of table:

Solution 1 - Delete flush right and enter flush left tab. Delete first tab
on each line of table after ENTERing to typing area.

Solution 2 - Enter two flush left tabs side by side. Delete flush right
tab. If the column was at the left margin, it will now be lined up one
space to the right of the left margin.

TOPIC: Function
SUBJECT: Over-riding Decimal Tabs
PRODUCT: All Textpacks

If a Required Tab is used to move to a decimal tab position, the decimal tab setting is treated as a flush left tab. This is true for any tab attribute - the attribute is ignored when you require tab to that point.

This will be especially helpful for centering headings over decimal tab columns. Steps:

1.   Require Tab
2.   Require Backspace to center of column (for Flush Right or Decimal Tab)
3.   Code + center
4.   Type the heading
5.   Repeat 1-4 for rest of headings

TOPIC: Function
SUBJECT: Pitch Used for Column Layout
PRODUCT: Textpacks 3, 4 and 6

Column layout uses 12-pitch for layout (even if proportional spacing
selected). "a" was chosen as the layout character because of its unit
value (it covers most situations). If the table is comprised of numeric
characters, all have same unit value, so there is no problem.

Proportional Spacing in Tables/Columns should be handled the same way text
is handled.

TOPIC: Function
SUBJECT: Moving Columns
PRODUCT: Textpacks 3 and 4

When you move columns the system moves the number of positions designated
by "a"'s AND the gutter. If all the columns ("a"'s + gutter) are the same
width the tabs will remain the same. If not, they change. Note: "x"
equals a space.

        Col 1   Col 2   Col 3   Col 4

        aaaaxxxxxxxaaa.aaxxxaaa.aaxxxaaa.aa

Move Col 3 in front of Col 2 --

        Col 1   Col 3   Col 2   Col 4

        aaaaxxxaaa.aaxxxxxxxaaa.aaxxxaaa.aa

In other words, the column and the gutter space <u>preceding</u> the column are
moved.

Go into column layout menu and manually readjust spacing between columns
if desired.

TOPIC: Function
SUBJECT: Revising Columns With Too Many Characters
PRODUCT: Textpacks 3, 4 and 6

Entries extending into the gutter will work fine during block operations.
The characters will not be cut off. The highlighting will still only
highlight the number of characters the column was layed out for.

Entries extending into the gutter and into another column will not work as
desired. The characters will be cut off.

Operator should CANCL block operation and revise the column layout for the
table.

Always revise the column layout. Do not revise the format change.

TOPIC: Function
SUBJECT: Text Columns and Required Carrier Returns
PRODUCT: Textpacks 3, 4 and 6

When a text column is typed, a column at a time, and a Required Carrier
Return (RCR) is typed while in the column revise mode, the RCR is honored.
Once ENTER is depressed and the column is put back on the page, the RCR
is replaced with a tab to move to the next column. If that column is
revised again, when it is brought to a page by itself, the tab (former
RCR) is converted to a soft Carrier Return (CR). If in fact the RCR was
used to keep a line short with typing immediately following in the next
line, in revision the line will not remain short and the Displaywriter
will not see a paragraph boundary.

In order to workaround this, type the RCR, a required space, a required
backspace and continue with typing.

TOPIC: Function
SUBJECT: Number of Tabs Set In Default
PRODUCT: All Textpacks

There are now only 14 tabs set (5-space grid between margins), <u>rather</u> <u>than</u>
the 48 tabs that used to be the default. This does not affect previously
created documents. Textpacks 1 and 3 still have 48 default tabs.

There are still 20 tabs set in the Key-to-Print function.

```
TOPIC:      Function
SUBJECT:    Backspace 1
PRODUCT:    All Textpacks
```

A Backspace 1 cannot be keyed on Displaywriter, but it is honored for:

- ° Proportional Space
- ° Communications
- ° Mag Cards
- ° Justification
- ° Paginator

It will not be stripped from data stream during the Mag Card read process. If outputting to magnetic cards, the one-unit backspace is stripped out because the Displaywriter outputs in "print image".

The Displaywriter automatically inserts a one-unit backspace when output contains alignment tabs (e.g., flush right, decimal) to prevent information from being interpreted as a centering instruction.

TOPIC: Function
SUBJECT: Keep Instructions
PRODUCT: All Textpacks

During pagination if the <u>begin keep</u> or <u>end keep</u> is on a widow line, the keeping action overrides pagination widow line control.

Example: Last Line 60 Instruction

57 (begin keep) on this ____ day of _____ in the
year ____ .
58
59
60
61   _____
62 as witnessed by   Plaintiff
63   _____
64 (end keep)   John P. Jones, Atty.

Results:

Last line for page 1 is now 56. Page 2 begins with the previous line 57 which is a widow line.

If the <u>keep</u> instructions move to other than the left margin, the entire line will be kept together during subsequent pagination.

Example: Original Text

BK _____
    _____
EK _____
    _____

                    Revised Text

_____
_____BK_____
_____
_____
_____EK_____

TOPIC: Function
SUBJECT: ZICR Followed by a Format Change
PRODUCT: All Textpacks

If a line is ended with a ZICR and followed by a line format change, it
will print as two lines instead of 1 as desired.

Workaround:

Put a reverse index down at the beginning of the line and a reverse index
up and RCR at end of line, in place of ZICR. After the format change on next
line put another reverse index up. At the end of the line put a reverse index
down just prior to the RCR.

    ↓Ɐvar 1 Ɐ   Ɐ var 2 Ɐ.......Ɐ var 3 Ɐ↑ RCR
    F]↑ tab   tab   Ɐ text Ɐ ↓ RCR

TOPIC: Function
SUBJECT: Symbols + and -
PRODUCT: All Textpacks

The ± can not be keyed in Keyboard 1 and translated to keyboard 200 for printing on a 5215 printer.

On Keyboard 1, ± has a different hexidecimal value than the keyboard 200 ±.

TOPIC: Function
SUBJECT: Return to Starting Choice
PRODUCT: All Textpacks

When "return to starting choice" is invoked, the format returned to is
either Document Format or Alternate Format - whichever was active at the
time the return option was entered.

If Document Format was used when creating and later Alternate Format is
invoked, return formats will be updated to reflect Alternate Format when
the document is paginated.

TOPIC: Function
SUBJECT: Replace Mode and Carrier Returns
PRODUCT: All Textpacks

When in replace mode with Adjust Line Endings = NO, the carrier return is
not replaced. When replacement text is longer than the original, the
carrier return is retained and the line is extended.

TOPIC: Function
SUBJECT: Centering with Cursor Key
PRODUCT: All Textpacks

Using the cursor key, move the cursor to any point on the line where you
wish to insert a centered heading. Depress CODE + c. The system brings
the page end or carrier return to that point. Type in the desired heading
and it will be stored and printed as a centered heading.

(This is in addition to the "normal" ways of centering, i.e., space or tab
to center point; CODE + c and type information).

TOPIC: Function
SUBJECT: Performance
PRODUCT: All Textpacks

The Text Storage Buffer (TSB) for the (25 line display = _approx_. 7000
bytes). The display is like a window to the pages/records. It tries to
contain as much text as possible for that page.

Delete functions (such as error correct backspace) prompt the Displaywriter
to rescan the page to see if any more text can fit into the buffer. It may
attempt to read in the previous sector. If it determines there is not
enough space to process the previous record, the Displaywriter will
disregard it.

This process occurs for each depression of the error correct backspace key.
That is why the performance can be extremely slow if the customer is typing
an indefinite page and has approached 5-6000 bytes in the TSB.

The customer can insert a Page End anywhere on that page and the per-
formance should improve.

TOPIC: Function
SUBJECT: Screen Segmentation
PRODUCT: All Textpacks

Beginning at the 80th character position on a 25-line display, the viewport
segments 60 characters to the right with an overlap of 20 characters. On
a 66 line display, segmentation begins on the 100th character position, it
segments 75 characters to the right and has an overlap of 25. The display
may be segmented to the right until character position 999 of the cursored
line is displayed. Once character position 999 of the cursored line is
displayed, no segmenting to the right may be done.

TOPIC: Function
SUBJECT: Constructing Characters in Proportional Space
PRODUCT: All Textpacks

The overstrike function may be used to construct "some" characters in PSM.
For example, the Ø (zero and diagonal) prints correctly. The Ø (capital O
and diagonal) do not print correctly. The ! (apostrophe and period) does
not print correctly.

Unit backspace cannot be invoked on the Displaywriter.

```
TOPIC:        Function
SUBJECT:      Paper Source 3
PRODUCT:      All Textpacks
```

With Paper Source 3 it will prompt to "Load Paper" and "Put on Printer Element" for first page of the first document and then will prompt to "Load Paper" for second page.

If <u>printer sharing feature</u> is not installed, it will not stop prompt to load paper if another document is requested to print with paper source 3.

If <u>printer sharing feature</u> is installed, it will prompt for "Load Paper" and "Printer Element" on first page and "Load Paper" for each separate document (with paper source 3) requested to print <u>if they are not batch queued</u>.

<u>Workaround</u>: To get to prompt for first document only:

      1.   Batch Queue all paper source 3
  or
      2.   Have all paper source 3 documents in one job.

TOPIC: Function
SUBJECT: Indented and Combined Outline Levels
PRODUCT: Textpack 6

Following are the steps necessary for an outline which requires each
level to be indented and combined. Notice each indented combined level
has multi-line entries.

EXAMPLE:

1. This is an outline in which the tabs are set according to the
    longest possible entry at each level.

    1.1. Two spaces are then added to allow for distance between
         the longest entry level and its corresponding data.

         1.1.1   The Outline Formats are then set with one
                 required tab as the trailing character at all
                 levels.

                 1.1.1.1   The leading characters are the appro-
                           priate number of required tabs to get
                           to the proper indent level.

                 1.1.1.2   This level will be carried out to its
                           longest entry in efforts to demonstrate
                           how this will look.

                 1.1.1.3   xxxx x x xxxx xxxxx x x xxxxx x xxxx x
                           x xxxx xxx xx xx xx

                                    |
                                    |
                             etc.
                                    |
                                    ↓

                 1.1.1.10 xx x x xxxxxx xxx xxx xxxx xx x xxx x
                           xxx x xxx x x xx x

To determine tab stops, count the characters in the longest level entry
and add two spaces. This is done for each level.

EXAMPLE:

	Longest Entry	+	Two Spaces	
1st level	3		2	= 5
2nd level	4		2	= 6
3rd level	6		2	= 8
4th level	8		2	= 10

If the left margin is 10, the tab stops are 15, 21, 29, and 39.

Create a Format Change and make necessary changes to the Margins and
Tabs selection.

In the Outline Format menu, the leading character will be the appropriate
number of required tabs to get to the proper indent level. The trailing
character for each level is a required tab.

(Continued)

	Leading Character	Trailing Character
1st level	none	one required tab
2nd level	one required tab	one required tab
3rd level	two required tabs	one required tab
4th level	three required tabs	one required tab

NOTE: Flush right tab and decimal tab functions are not recognized when creating combined levels.

TOPIC: Function
SUBJECT: No Feature Diskette Found Message
PRODUCT: Textpack 4 and 6

The message "No Feature Diskette Found" displays when selecting Feature
Tasks after creating a combined program diskette (add feature).

Must Re-IPL after creating combined program disktte. (See 3-65, Quick
Reference, Textpack 4 Operator Reference Guide).

TOPIC: Function
SUBJECT: "Warning! Diskette nearly full. Data..." Message
PRODUCT: All Textpacks

"Warning. Diskette nearly full. Data may be lost if task continues."
Also simultaneously receive prompt "Press ENTER to continue or press
CANCL".

The message is displayed when there are less than 22 contiguous sectors for
storage.

NOTE: Because of the number of data sets on the diskette, the format
complexity of the documents, and the amount of revisions to documents
(without condensing), it is quite possible to have a high percentage (50%+)
available space on a diskette when the warning message is posted. There
could be many sectors available, but if the Displaywriter determines that
there are not at least 22 contiguous (adjacent) sectors, the message is
posted.

Operator should condense the diskette to obtain additional space available.

The message can appear during CREATE, REVISE, MERGE, CREATE DOC OF SUPP.
WORDS, MERGE FILE/TEXT, OUTPUT FILE, UPDATE FILE, and MAG CARD READ.

This message is not posted for Work Diskette or Program Diskette tasks.

TOPIC: Function
SUBJECT: Global Search String Rules
PRODUCT: Textpacks 3, 4 and 6

The Page End code is not allowed in the search string.

All graphic characters (alpha/numeric, special characters, etc.) are valid
as well as following instructions:

- Hyphen, Required Hyphen
- Tab, Required Tab
- Space, Required Space
- Required Backspace
- CR, RCR
- ½ up, ½ down
- Center Text
- Begin Und, End Und - (see page 78)
- Required Page End
- Word Underscore
- Repeat
- Stop
- Index, Index Return

Can search for variable code ⱽ but cannot search for a specific named
variable, e.g., ⱽVariable Nameⱽ.

TOPIC: Function
SUBJECT: Global Search for Begin Underscore
PRODUCT: All Textpacks

If an operator searches for either a Begin Underscore (BUS) or End Under-
score (EUS) in global and replaces with something <u>other</u> than a BUS or EUS,
they will receive the message "X phrases changed". When they review the
document, they will notice that the BUS or EUS is still in the body text.
This is per specification and results because: "The removal of certain of
the codes, ... could cause undesirable results."

    A.   Begin underscore not paired with an End Underscore.

        1.   A BUS code will be inserted to the immediate left of the
            replaced/deleted character string.

    B.   End underscore not paired with a begin underscore.

        1.   An EUS code will be inserted to the immediate right of the
            replaced/deleted character string.

Thus, the message "X phrases changed" results from the number of BUS or EUS
found but the system inserts a BUS or EUS after deletion. The net result
is the <u>appearance</u> of failure.

<u>Workaround</u>:

<u>TPE, 1, 2 & 3</u>: To use FIND and go to each occurrence and manually delete or
                replace.

<u>TP4 & 6</u>:   (1) Key Save
               (2) Find, Begin Underscore, Enter
               (3) Delete, Enter
               (4) Find, End Underscore, Enter
               (5) Delete, Enter
               (6) Key Save
               (7) Key Playback throughout document

TOPIC: Function
SUBJECT: Keyboard Change
PRODUCT: All Textpacks

When a keyboard change is done:

1. The new keyboard is reflected on the status line.

2. The keyboard change block graphic displays once you begin typing.

3. When you type under a keyboard change a graphic block is inserted before the 1st character you typed. (you can see it by cursoring back) A graphic block displays <u>after</u> the character(s) you type.

4. The end result is that a keyboard change block will appear before any insertion and after it.

A keyboard change above cannot be deleted. Once a keyboard change has been keyed, any keystrokes are recorded in the keyboard they were typed in unless you block delete both keyboard change blocks and all the text between them.

If you try to <u>delete part of the text</u> that was surrounded by a keyboard change, only the text will be deleted and the keyboard change will now surround what remains of that text.

TOPIC: Function
SUBJECT: Page Numbering in Merge
PRODUCT: Textpacks 3, 4, 6 and Reportpack

When using a header/footer to produce page numbering in merge, regardless
of whether the shell is single or multi-page, regardless of whether page
numbering is on all or all but the first page, you should not use system
page number if the merge is to produce more than one set. A system page
number will cause each sheet produced to be numbered in sequentially. The
counter is not reset at the begin using document format
or at the $SYSDOC boundary.

If, for example, you created a six page shell to produce multiple sets with
page numbering to begin with 2 on all but the first page of each set, you
should use a header/footer with the instruction: B page number, reset with
2 as your choice.

This applies to both merge to print and merge to diskette.

TOPIC: Function
SUBJECT: Extra spaces in a Fill-In Document
PRODUCT: Textpacks 3, 4 and 6

Revising named variable data that line ends with a regular carrier return, i.e., not a required carrier return, will cause a space to be inserted between the last character of the variable data and the soft return. The insertion will occur when the cursor is moved to another line, or another page is accessed by cursor motion or a "go to" instruction. (This situation will occur when an operator initially creates a fill-in page that page ends immediately after the last line of variable data... pagination or revision causes a "soft" return to be inserted prior to the page end.)

To eliminate an extra space following the last variable to appear in the merged document, change line format to adjust line endings = no, or replace the "soft" return with the required carrier return.

TOPIC: Function
SUBJECT: Multi-Line Variable to be Centered and Underscored
PRODUCT: Textpacks 3, 4 and 6

Document has multi-line variables followed by constant text in shell. All
must be centered and underscored.

        Shell:
            Format Change
            Set tab at center
            Adjust line endings = NO.

    ¥variable¥(SP)(SP)(BU)Determined by John Smith (EU)

        Fillin:
    ¥variable¥(Req.tab)(Center Code)(BU)THE SITUATION OF THE PARTY IS (CR)
    (Center Code) TO BE DETERMINED AT A DATE:(EU)(PE)

        RESULT (Centered and Underscored)

                    THE SITUATION OF THE FIRST PARTY IS
            TO BE DETERMINED AT A DATE: DETERMINED BY JOHN SMITH

NOTE: Be sure to key a regular CR in fill-in.

TOPIC: Function
SUBJECT: Cancelling Merge
PRODUCT: Textpacks 3, 4, 6 and Reportpack

To end either a named variable merge or merge file/text operation:

    1.   Depress END

    2.   Depress cancel on printer
               OR
       Cancel print job through REQUEST menu.

TOPIC: Function
SUBJECT: Block Overstrike
PRODUCT: Textpack 4 or 6

Block Overstrike does overstrike spaces between words on a line but does <u>not</u> overstrike spaces at the end of the line.

However, at the beginning of a line it will overstrike the white space where a tab has been used to indent.

If an operator tries to globally delete a block overstrike, the system will indicate that it has been done and that the correct number of phrases were found and replaced. But it did not delete the Block Overstrike. The logic is similar to that involving global deletion of BUS/EUS characters (see page 78). It <u>cannot</u> be deleted globally; must be done manually.

Material typed using reverse index and overstruck using block overstrike will show correctly on the screen, but it will print with the overstrike character on the base line only.

TOPIC: Function
SUBJECT: Footnotes on Programs other than Textpack 6
PRODUCT: Textpacks E, 1, 2, 3 and 4 and Reportpack

On TPE, TP2, TP3, TP4, an attempt to paginate a document containing footnote instructions will result in the message "Cannot paginate document with footnotes".

On TP1, an attempt to paginate a document containing footnote instructions will be allowed. The pagination does not recognize the formatted text codes nor the footnote instruction, therefore the document is not paginated properly. The footnote instructions are not resolved and the footnote text pages are not handled properly.

If a document with footnotes is paginated accidentally using TP1, it must be revised and repaginated on TP6.

The TP6 paginator is a variation of the TP4 (and Reportpack) paginator because it must properly handle footnotes and outline. The Reportpack diskette contains the paginator for Merge File/Text. Merge File/Text does not use the Textpack paginator.

The Reportpack paginator cannot cope with footnotes. Therefore, you cannot use Merge File/Text for a document that has footnotes.

TOPIC: Function
SUBJECT: Automatic Outline and Footnote Documents
PRODUCT: Textpack 6

When documents are created or revised using automatic outline format or
footnotes, adjust page endings must be set to yes during pagination to
resolve the numbering/lettering of outlines and footnotes. If specific
page endings are desired, required page ends must be used in lieu of
adjust page endings to no.

TOPIC: Function
SUBJECT: Compatibility Between Textpack 6 Functions and Reportpack
PRODUCT: Textpack 6, Reportpack

If the attempt is made to merge a file and a shell document containing
footnotes, the message "Cannot Merge Document Containing Footnotes"
appears in the Merge File/Text menu when ENTER is pressed. If the
footnote references and footnotes are deleted, then merge can be
accomplished.

A document containing auto outlining can be merged but the outline is not
renumbered. The workaround is to paginate the shell prior to merging the
file with text.

Named Variable Merge can be done with shell documents containing footnotes
and/or outline instructions and will result in proper resolution.

```
TOPIC:        Function
SUBJECT:      Math on Negative Numbers
PRODUCT:      Textpacks 3, 4 and 6
```

Negative numbers indicated by parenthesis-like characters align with the parenthesis-like character in the units position:

a) Alignment is incorrect:
```
        123
        456
      (789)
```

b) Math functions do not recognize the number as either numeric or negative.

Workaround

If a decimal tab stop is used to align numbers which do not contain a decimal point character and a negative number is desired, key a required backspace following the parenthesis character:

*   Before keying the BKSP
```
        123
        456
      (789)_
```

*   After keying the BKSP
```
        123
        456
      (789_
```

*   After keying the next tab character or moving the cursor
```
        123
        456
      (789)
```

The alignment is correct and the math functions will recognize the negative number.

NO DECIMAL POINT

Math will recognize a number that does not have a decimal point or whose decimal point matches the active math format.

```
TOPIC:          Function
SUBJECT:        Mag Card Read and Alternate Formats
PRODUCT:        Mag Card
```

Situation: A textpack program diskette has been personalized for a unique
             document format and alternate format. Mag Card program has
             been personalized for Read format defaults (there are no alternate
             read defaults).

             Document created by reading a Mag Card(s).

             Operator inserts "Begin using alternate format" on a page of the
             document.

Result: Page with "Begin using alternate..." is the same as the document.

Reason: Since there are no alternate read defaults, when the document is
             created, the alternate format is a copy of the Mag Card read
             formats on the Mag Card program diskette.

Workaround: Do not use "Begin using alternate...", create a format change and
             specify options. Or: Modify alternate formats after reading card
             to diskette.

TOPIC: Function
SUBJECT: Switch Code Merge with Mag Cards
PRODUCT: Textpacks 3, 4, 6 and Mag Card

Situation: 1. Mag Cards (MC) recorded with switch codes and
                  variables.

              2. Displaywriter has variable fill in document with
                  switch codes.

              3. MC's are read in 1 card per page

              4. Select merge with switch codes

Results: Will merge only the first page of switch codes and
              post "Merge Complete"

Cause: The Page End terminates merge.

Solution: 1. After MC read, delete every Page End in document

                                    or

              2. After MC read, create another new document and
                  "get the entire MC read document. This strips
                  out the Page Ends.

TOPIC: Function
SUBJECT: Keyboard ID and Mag Cards
PRODUCT: Mag Card

Keyboard ID   Type document in keyboard 1 when creating document at
                         Displaywriter for output to card. When you record the
                         cards, choose the keyboard number in the RECORD MAGNETIC
                         CARDS menu that matches the output device.

                         The Displaywriter records substitute code on the card for
                         any characters which are not in the keyboard chosen for
                         recording the cards.

Cards for 92-   To print paragraph character at playback machine, type
character keyboard   uppercase 2 at the Displaywriter.

                         To print section character at playback machine, type an
                         uppercase 6 at the Displaywriter.

                         Use keyboard 2, 3, 4 or 5 in the RECORD MAGNETIC CARDS menu.
                         IBM mag card operator should use legal keyboard 6, 7, or 8
                         to revise or print the magnetic cards.

Keyboard ID for   Keyboard ID   IBM Equip Type
Symbols from   200   MCA
Displaywriter   200   MC II
to IBM Equipment   201   6240
                             202   6640
                             203   6670
                             202   OS/6

                         Indicate the appropriate Keyboard ID in the MC Record menu,
                         depending on playout device.

6670   6670 recognizes only keyboards 1-8 and 100-103. Invalid
                         keyboard message causes 6670 to generate error message.
                         Printing will continue in last keyboard.

6640   Use keyboard 1 when recording magnetic cards to be printed
                         on 6640. The Displaywriter automatically converts keyboard
                         changes to Stop Codes. Address in stop list.

OS/6   The Displaywriter records a Substitute code on the card for
                         any characters not in the keyboard chosen to record the
                         cards. The Substitute code prints as an underline.

TOPIC: Function
SUBJECT: Justified Formats and Mag Cards
PRODUCT: Mag Card

Line Alignment 2 = Justify in the LINE FORMAT menu is not recorded on the magnetic card even if Format Line option is selected.

In order to achieve justified output on IBM devices supporting this option you must specify on transmittal form or type justify instruction in Operator Control Language (OCL) on the control card.

```
TOPIC:          Function
SUBJECT:        Mag Card Compatibility
PRODUCT:        Mag Card
```

HEADER/FOOTER

Do not record headers and footers in the HEADER and FOOTER menu if document
will be revised at Mag Card typewriter or OS/6. The Displaywriter
resolves headers and footers and records the information including page
numbering at the proper location on the page when recording on Mag Cards.

Use the ,margin text command for 6640 or 6670.

List margin text on transmittal form for Mag Card Typewriters and for OS/6.
The OS/6 operator can easily enter the desired header/footer in Top/Bottom
Margin Text frame.

OCL

If you decide to create operator control language for the IBM 6670, be sure
to choose Record Format 2 = Stop Codes only in the RECORD MAGNETIC CARDS
menu. Otherwise, the format line and stop list could give the 6670 con-
tradictory commands. Do not paginate the control card.

KEEP INSTRUCTION

The Displaywriter preprocesses Keep Instructions by keeping the appropriate
text together on the magnetic card, then deletes the Keep instructions
from the text on the cards.

TOPIC: Function
SUBJECT: No Stop Code Generated from Pitch Change
PRODUCT: Mag Card

A line format that only changes pitch <u>does not</u> generate a stop code. The
operator will need to type a stop code if the only thing the line format
change is doing is <u>changing the typestyle to a different pitch</u>. If the
operator does not type a stop code after the line format change then the
,stop list will be one stop code off. If other changes are made which are
not part of a format line, i.e. changing to 1½ line spacing, a stop code
will be generated for those items and that stop code can be addressed to
change the typestyle in the ,stop list.

TOPIC: Function
SUBJECT: Document Unsupported Type
PRODUCT: Chartpack

When using the merge task to resolve an Include Chart Instruction, "(Doc Name) Unsupported Type" message will result if the operator specifies the chart name as either item "a" (Shell Document Name) or item "c" (Fill-In Document Name) in the Merge with Named Variables Menu.

When merging only to resolve an Include Chart Instruction, an "empty" fill-in document is named in item "c" (Fill-In Document Name) in the Merge with Named Variables Menu.

```
TOPIC:        Function
SUBJECT:      Chartpack - Alternate Keyboard 660
PRODUCT:      Chartpack
```

Operator created/printed chart prior to adding Keyboard 660 to Workstation
Description menu.

Depending on the Textpack and the nature of the document one of the
following messages may be received:

    "Invalid Character"
    "Long line (last characters not printed)"
    "Some Data values out of range"
    "Press Request to CANCL or continue printing"

Add keyboard 660 to Alternate Keyboards in the Workstation Description menu
to correct the problem.

TOPIC: Function
SUBJECT: Begin and End Underscores in Chartpack
PRODUCT: Chartpack

BEG UND and END UND function differently in the Display Chart screen than within text documents.

In the Display Chart screen coding BEG UND turns on the underline mode. Anything typed will be underscored, regardless of whether you cursor to a line above the point at which you pressed BEG UND. You will remain in underline mode until END UND is pressed. (Special Graphics characters - bar shades and line types - cannot be underscored)

To underscore notation previously typed with no underscore, you must press BEG UND and rekey the information.

TOPIC: Function
SUBJECT: Printing Charts Using the PRINT Key
PRODUCT: Chartpack

Printing of a chart cannot be cancelled when using the PRINT key.

If a background print operation is in progress, the system will auto-
matically suspend the current job that is printing prior to initiating the
'Chart' print. Printing will end after the current page has been printed.
The 'Chart' will be placed at the beginning of the print queue. Once the
chart printing has terminated, printing will resume automatically with the
next page of the suspended document.

If the printer is allocated to another workstation in a shared environment,
or a priority print job has already been queued from the Chartpack partition,
the printer will be unavailable and the chart print request will be terminated.

TOPIC: Function
SUBJECT: Print Chart Task Using Request Tasks
PRODUCT: Chartpack

Print Chart Task is a background function initiated by selecting Print
Chart from Chart Tasks menu. Printing can be cancelled by pressing cancel
on the printer or by cancelling from the Display Print Queue frame.

A chart can be queued to print through Textpack Request while not in Chart
Tasks.

Printing can be cancelled by pressing CANCL on the printer or by cancelling
from the Display Print Queue frame.

TOPIC: Function
SUBJECT: Determining Number of Labels on a Scaled Axis
PRODUCT: Chartpack

The maximum number of labels on a scaled axis is 11. In order to insure
that label values are whole numbers, use the following procedure:

1. Determine the greatest and least values which must be represented
    on the chart.

2. Determine the Top/Right Label Value and the Bottom/Left Label Value.

3. Add the Top/Right Label Value to the Bottom/Left Label Value. Disregard
    negative signs when adding.

4. Determine in what increments you want the label values. (The number
    must be evenly divisible into both the Top/Right Label Value and the
    Bottom/Left Label Value.) Divide the sum from Step 3 by the incre-
    mental value.

5. Add 1 to the answer from Step 4. Is the sum less than or equal to 11
    (the maximum for number of labels)? If not, increase the incremental
    value and repeat from Step 4.

6. The answer from Step 5 represents the total number of labels.

TOPIC: Function
SUBJECT: Chartpack and Keystroke Save
PRODUCT: Chartpack

With Textpack 6, Keystroke Save/Playback (KAF) can be used in the display
chart screen. In order to avoid confusion when using KAF in conjunction
with cursor draw, use the following procedure:

1.   Start out of CURSOR DRAW mode. Keystroke Save

2.   Press CURSOR DRAW to invoke CURSOR DRAW mode.

3.   Draw the line or box.

4.   Press CURSOR DRAW to exit CURSOR DRAW mode.

5.   Keystroke Save.

If you need to draw a line to the position where the keystrokes will be
played back, press CURSOR DRAW and draw the line. Press CURSOR DRAW to
exit CURSOR DRAW mode. Playback the saved keystrokes.

```
TOPIC:       Function
SUBJECT:     Reportpack Training Diskette as Unsupported
PRODUCT:     Reportpack
```

Just a reminder: Reportpack customer training diskette is a "protected" diskette. If operator tries to access information on diskette (or output file), an unsupported diskette type message is received. The index can be displayed.

The diskette must be duplicated. Then, full access to data is allowed on new diskette.

TOPIC: Function
SUBJECT: Field Location
PRODUCT: Reportpack

There is no significant difference in field access regardless of location in the record.

OS/6 could access fields at the beginning of records significantly faster than fields at the end.

Displaywriter uses a different access method which makes location insignificant.

TOPIC: Function
SUBJECT: Outputting a File in Proportional Space
PRODUCT: Reportpack

Proportional Space Type (PSM) cannot be specified in a format document for file output. (System cannot figure proper tab settings). If PSM is used system will default to typestyle 86.

If program diskette has PSM as a default, a long line message will result when outputting a file.

TOPIC: Function
SUBJECT: Adding Records Results in 900 Number
PRODUCT: Reportpack

Record ID cannot be greater than 65000. If an operator attempts to enter
record ID 65001, System gives a 900 number. Since a disk will not hold
65001 records, the solution is to renumber (assuming the file has been
revised and records have been deleted).

TOPIC: Function
SUBJECT: Convert Document to File
PRODUCT: Reportpack

When converting a file to text (using output file to diskette) so that
global update can be used, any text field will have an underscore and
required backspace inserted, each line will begin with a format change and
each page will begin with field headings. The underscore is inserted in
order to readily identify the text fields on the printed output. When the
text document is then converted back to file this combination of underscore,
required backspace will be inserted into the text field and will print
whenever this field is used. The format changes will generate "invalid
field contents".

To avoid these problems use merge file/text to convert the file to the text
document. (See page 169.) An alternate method is to global delete the
underscore, required backspace combination, format changes and to delete
the field headings.

TOPIC: Function
SUBJECT: Conversion to File of Documents with Keyboard Changes
PRODUCT: Reportpack

Keyboard Change code does not resolve as such in a math or character field.
It is ignored in the conversion process and does not display in the file.
Because it is ignored, it does not cause any error during conversion or
subsequent merge/output procedure.

Keyboard changes are recognized and converted in text fields.

The keyboard for the file is determined by the keyboard active during time
of conversion.

When output file is used after this conversion, with "Keyboard 7" active,
for example, the system will prompt "086 007".

When merge file/text is used after conversion, with Keyboard 7 active, the
system prompts "086 001". The text shell document is in control of the
formatting.

TOPIC: Function
SUBJECT: Invalid Field Contents in Conversion
PRODUCT: Reportpack

Problem 1:   Converting, get message "field (last field) invalid
                    field contents" where last field is a math field.

          Cause: Last field information to be converted is
                        followed by a space, CR and page end.

          Solution: Removing the space will not work since
                        the system automatically replaces the space.
                        Therefore, change adjust line endings to
                        "no" then delete the space before converting.

Problem 2:   Converting name variables to a file and get error
                    message "field (last field) invalid field contents".

          Cause: If last variable is followed by a CR or
                        RCR then a PE the system does not ignore
                        the CR/RCR and tries to place it in the
                        file. If the field being placed in is
                        math or character, an error exists and is
                        written to error document.

          Solution: Remove CR/RCR at end of each variable set
                        in original document or in error document.

Note: Convert ignores a line end delimiter followed by a
                    field identifier, but this last CR/RCR is not followed
                    by the field identifier.

TOPIC: Function
SUBJECT: Keystroke Save in Files
PRODUCT: Textpack 6, Reportpack

Keystroke Save/Playback can be invoked in "Update File". This could be used as a "field update" function to enter material that must be repeated or deleted from many records.

This is available only with Textpack 6.

```
TOPIC:        Function
SUBJECT:      Restart Number
PRODUCT:      Reportpack
```

The Restart Number posted by the Displaywriter when Merge File/Text is
interrupted, is the last record processed, not the last record printed.
If the operator cancels print after the Restart Number is posted, the
number posted and the last document printed will <u>not</u> be the same.

If the operator specifies an invalid Restart Number in the Merge File/Text
menu, the Displaywriter processes the <u>entire</u> file. No message is posted to
the operator. This could happen when the ID number specified has been
deleted from the file or a higher number than exists is entered.

TOPIC: Function
SUBJECT: Recovering a File
PRODUCT: Reportpack

During recovery of a file, the operator may be prompted that the field names will be changed. The field names will be changed to numbers, the field type to text and the field length to whatever the largest entry for the field is. Because all the fields have been changed to text fields, the operator will not immediately see the field contents when revising the file. One must move the cursor to the desired field and press the cursor down to view the field contents.

The following procedure will enable the operator to reconstruct the field descriptions.

There are four phases to complete the process, 1) duplicating the field descriptions to a new disk to create a new file, 2) revising the field descriptions on the new diskette to reflect the correct field types and lengths, 3) duplicating the records to the new file, and 4) revising the field names on the new file.

Phase 1 - Duplicating the Field Descriptions

    Select Duplicate Selected Records in the File Task menu. When you are prompted for the file name, use the old file name.

    In the Duplicate Selected Records menu enter a new file name, new diskette's name, and error file name.

    In the Record Selection frame select Rec ID < 1. Then press Enter enough times to begin the duplication process. The Displaywriter will then begin to duplicate your file. Because you have asked for it to duplicate records with ID's less than 1 only the field descriptions will be duplicated thereby creating a new file without records. When you are prompted that duplication is complete, go back to the File Task Selection menu.

Phase 2 - Revising The Field Descriptions on the New Diskette

    Select Revise File Description. You will need to revise the file des- cription for the new file on the new diskette, so enter the appropriate file name and diskette name when prompted.

    Select Revise or Display Field Descriptions in the Revise File Description menu.

(Continued)

111

The Revise Field Description menu will display. The screen cannot display all the field names (which are now numbers) at once. You will see ID's through m and the field names next to them. You will now need to revise each field description by using the following steps.

a.   Select an ID (example a). Press Enter. The Field Description menu will display. You will change ID's a (Field Name), b (Field type) and c (Maximum Length) at this time.

b.   Change these to be what is needed. When finished with this menu, press Enter and you will be returned to the Revise Field Description menu.

      Select the next ID and repeat steps a and b. When you have completed all the fields for a through m, press the cursor down key. This will display the next 13 field names. The ID's will still be a through m but the field names will be different. Repeat steps a and b until you have updated all the field descriptions for your file.

Once the field descriptions have been changed you can duplicate your records from the old file to the new file.

Phase 3 - Duplicating the Records to the New File

Select Duplicate Selected Records in the File Task menu. When you are prompted for the file name, use the old file name.

In the Duplicate Selected Records menu enter the new file name, new diskette name and the error file name. Then press Enter enough times to begin the duplication process. Your records will be duplicated to the new file which has the proper field descriptions.

TOPIC: Function
SUBJECT: Multi-Column Label Logic
PRODUCT: Reportpack

Label logic takes any blank lines that would appear between lines of text
and moves them so they are printed following the last line of variables for
one record. There is no way to have the Displaywriter suppress these
returns, they are simply moved to another location within the printing of
the record's information.

If the operator wishes to delete these extra carrier returns, output to
diskette, revise document and use column layout to place each column in a
table, then revise the column and delete the extra carrier returns.

TOPIC: Function
SUBJECT: Multi-Column Listing
PRODUCT: Reportpack

When the multi-column file instruction is chosen from from the Instructions
Menu, the following will display on the shell:

      /Multi-column Heading, # of cols, col width/
      RCR
      /Record Detail/
      RCR
      ▲

These are the <u>only</u> two report instructions that will be allowed in the shell.
Report Preface, Page Heading, Record Group Definition, Record Group Summary,
and Report Summary will not be allowed. If any of these instructions are
included in the shell, the operator will get the following messages:

      "Instruction invalid or out of sequence in multi-column file listing."

      "Merge incomplete."

If some information is needed before/after the multi-column instruction, the
operator has two options:

   1)   If the information is short and is only needed at the very top of
        every page, the operator can type this information in the shell in a
        header created in the Create or Revise Document Menu.

        (Example: Title of Listing)

   2)   If the information is lengthy, the operator can merge the listing to
        the diskette. Once it is stored as a text document, the information
        can be typed where needed. Then the listing can be printed.

        (Example: introductory paragraph, summary information)

If any text is typed in the shell before the first instruction, it will be
ignored.

```
TOPIC:        Function
SUBJECT:      Columns Not Aligning
PRODUCT:      All Textpacks
```

Situation: Information from first column prints way over to the right
            yet column width fits between margins.

Cause: Check line format to see line alignment. One half justify
            or justify will cause problem.

Solution: Change line alignment = left.

TOPIC: Function
SUBJECT: Message "Field Used in More Than 1 Group Definition"
PRODUCT: Reportpack

Message "Field (Rec ID) used in more than one Group Definition" prompts even if used only once.

Can not use "Rec ID" in group definition nor in group summary.

TOPIC: Function
SUBJECT: Select Criteria Using Equal and Not Equal
PRODUCT: Reportpack

The examples in the Operator Reference Guide gives a few examples of select
criteria but doesn't go into great detail in using the "AND" or "OR" symbols
with relation to EQUAL TO and NOT EQUAL TO. The following are examples of
correct and incorrect select criteria:

(File contains 11 records. Select on REC_ID.)

CORRECT SELECTION   # RECORDS MERGED

    A) =1|3|5|7|9   5

    B) =1|=3|=5|=7|=9   5

    C) ≠1&≠3&≠5&≠7&≠9   6

A & B are exactly the same, either way will work. C is the only way the ≠
will work properly.

INCORRECT SELECTION   # RECORDS MERGED

    D) =1&3&5&7&9   0

    E) =1&=3&=5&=7&=9   0

    F) ≠1|3|5|7|9   10

    G) ≠1|≠3|≠5|≠7|≠9   11

    H) ≠1&3&5&7&9   0

Be sure to use the "&" symbol on the template. Do not use the "&" above
key #7.

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TOPIC: Function
SUBJECT: Ignore and Ignore Rest
PRODUCT: Reportpack

When using ignore characters to select records, the Displaywriter looks for the exact number of characters represented to create a match.

     Example: Field Entries
            1284
            284
            7284
            17684

     Select Criteria = ● ● ● 84 Will find: 17684 only

When using ignore rest, the Displaywriter looks from left to right to find a match regardless of the number of characters in the field.

     Example: Field Entries
            187
            18765
            18
            1823

     Select Criteria = 18? Will find: all entries.

NOTE: Ignore and Ignore Rest can not be used in math fields.

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TOPIC: Function
SUBJECT: Select Blank Character and Math Fields
PRODUCT: Reportpack

CHARACTER FIELDS

1)   = Required space (code + space) will select all where the given
      field is blank.

      ≠ Required space will select all records in where the given field
      is not blank.

2)   = '' (= to apostrophe apostrophe) will select all records where
      the given field is blank.

      ≠ '' will select all records in where the given field is not
      blank.

3)   = . ? will select all records in where the given field is not
      blank (≠ 0).

      ≠ . ? will select all records in where the given field is blank
      (= 0).

MATH FIELDS

      = 0 will select all records in which the given field is either
      blank or has a zero (0).

TOPIC: Function
SUBJECT: No Page Heading Printing in Merge File/Text
PRODUCT: Reportpack

If in merging a file and text the report summary is split across page
boundaries, the page heading will not print on the carryover pages.

```
TOPIC:        Function
SUBJECT:      Only Page Headings Printing
PRODUCT:      Reportpack
```

Merging document but only the page headings print and they keep repeating.

There is a begin keep instruction in the Page Heading but the end keep is in report summary.

To correct, put end keep in matching group summary.

If using column layout, put end table code before report summary.

TOPIC: Function
SUBJECT: Commas in Math Fields
PRODUCT: Reportpack

Sometimes there will be a problem involving incorrect math calculations in a report created using Merge File/Text. Check to see if any commas have been used in any of the math fields. Remember that a math field can contain only 17 characters:

    1 character for positive or negative sign
    1 character for decimal or comma*
    15 digits

*Since some foreign countries use commas instead of decimals, the Display-writer will accept on comma in a math field. However, a number with a comma and a decimal will not be accepted. The message "Invalid combination of characters" will be displayed.

When math calculations are performed, the commas in the numbers are treated as decimals, thus the incorrect calculations. The operator will have to revise the file and delete all commas entered in math field.

    Example:

    3,405   Treated   3.405
      459   as: 459
    4,094   4.094

The correct answer should be 7,958. However, the answer is calculated as 466.499.

TOPIC: Function
SUBJECT: Math on Record ID
PRODUCT: Reportpack

The Rec.ID field is a math field and therefore math can be performed in this field as with any math field.

When using math equations in Merge File/Text, it is possible to arrive at what appears to be an incorrect answer. This incorrect result occurs when one, or both, of the numbers used in the math equation is the result of a previous calculation.

The IBM Displaywriter System calculates answers to math equations out to 15 significant digits in its internal system buffer. When printed, however, the answer variable is usually rounded off (according to rounding rule and number of positions past decimal selected in the operative math format default.)

This rounding off of numbers occurs for the printed answer only; the system's internal buffer answers retains the 15 digit number. If this answer variable is subsequently used in another math equation, the 15 digit number in the buffer, not the printed answer variable, is used to produce the calculation.

If the same calculation is done manually, using the printed answer, the result may not be the same as that calculated by the IBM Displaywriter System which use the 15 digit number in its buffer.

EXAMPLE OF PROBLEM

FILE	Fields	Rec ID	A	B	C	D
		1	1813.81	.0125	365.50	.1796

The shell Document contains the following math equations:

$$X = A * B$$
$$Y = C * D$$
$$Z = X + Y$$

THE RESULTS   The calculated answers are:

$$X = 22.6726250000000$$
$$Y = 65.6438000000000$$
$$Z = 88.3164250000000$$

The printed answers are (rounded to 2 digits past the decimal)

$$X = 22.67$$
$$Y = 65.64$$
$$Z = \underline{88.32}$$

If $Z = X + Y$ is calculated by adding the printed answer X to the printed answer Y, the result is 88.31. The discrepancy between the two sums is because the manual calculation used numbers that were rounded prior to the calculation; the system-calculated answer used unrounded numbers and rounded off the result.

(Continued)

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THE SOLUTION

To remove the discrepancy between the calculations, it is necessary to make the system's internal buffer answer the same as the printed answer prior to making the second calculation.

To round off the system-calculated answer, it is necessary to force the first unwanted digit to become the 16th digit. Since the Displaywriter system internally uses 15 significant digits and rounds from 1-4 down and 5-9 up, the 16th digit is dropped and the remaining 15th digit is rounded accordingly.

In this example, the 3rd digit to the right of the decimal point should be dropped to allow rounding to occur in the same manner as the manual calculation. This can be accomplished by adding a 13 digit number to both X and Y.

13 digits are needed because it is the 3rd digit to the right of the decimal point that must be forced to the 16th position of the number used in the calculation and, (16-3=13).

Any 13 digit number could be added to X and Y but the easiest to work with is 1 followed by 12 "0's". After the number is added to both X and Y, it is then subtracted from both X and Y to make the system-calculated answer match the printed answer. In the event that no digits to the right of the decimal are desired, then the 1st digit beyond the decimal would need to become the 16th in thew forcing process; thus a 15 digit number (16-1=15) would be added and subtracted from both X and Y.

THE NEW SHELL

The shell would now look like:
```
     X = A * B
     Y = C * D
     X = X + 1000000000000
     X = X - 1000000000000
     Y = Y + 1000000000000
     Y = Y - 1000000000000
     Z = X + Y
```

THE NEW RESULTS

The calculated answers are:
```
     X = A * B. . . . . . . . . . . . . . . . . . 22.6726250000000
     Y = C * D. . . . . . . . . . . . . . . . . . 65.6438000000000
     X = X + 1000000000000. . . . . .1000000000022.67
     X = X - 1000000000000. . . . . . . . . . . . 22.6700000000000
     Y = Y + 1000000000000. . . . . .1000000000065.64
     Y = Y - 1000000000000. . . . . . . . . . . . 65.6400000000000
     and
     Z = X + Y becomes Z = 22.6700000000000 + 65.6400000000000 =
83.3100000000000
```

The printed answers (rounded to 2 digits to the right of the decimal):
```
     X = 22.67
     Y = 65.64
     Z = 88.31
```

The printed answer now equals the system answer.

TOPIC: Function
SUBJECT: Use of Keeps in Merge File/Text
PRODUCT: Reportpack

Do not have keep instructions within page headings. This can cause
multiple blank pages.

In Record Group Definitions, insert End Keep immediately followed by Begin
Keep. This will eliminate blank pages if a group cannot fit on one page.

Begin and End Table Codes act like keeps. They, too, can cause blank pages
if table exceeds one page. If they are to be used to create tab settings,
delete them from shell after tab settings have been established.

TOPIC: Function
SUBJECT: Skip-to-Line and Keep Instructions
PRODUCT: Reportpack

If a Begin Keep instruction is in effect, the insertion of a Skip-to-Line
will terminate the Begin Keep instruction. That is, Skip-to-Line inserts
an End Keep instruction into the data stream.

TOPIC: Function
SUBJECT: Skip-to-Line
PRODUCT: Reportpack

When merging a file with text, the Skip-to-Line instruction will insert a
space, required backspace on the line skipped to. This can cause some
confusion when revising or attempting to put a format change on this line.
If merging to print, no problem occurs. The insertion is made to ensure
that a paragraph boundary is established. The paragraph boundary assures
that no controls will be removed by "adjust".

TOPIC: Textpack Application
SUBJECT: Document Assembly
PRODUCT: All Textpacks

When setting up a library of stored paragraphs:

o   Store the paragraphs in multiple documents (improves response time).

o   Clear the tab grid and set only the required number of tab stops
     (increases number of paragraphs that may be stored onto diskette).

The above procedures will enhance document assembly throughout.

TOPIC: Textpack Application
SUBJECT: Forms with Underscores
PRODUCT: All Textpacks

There are several methods of producing forms with underscores. The
following are two methods of accomplishing this task. The advantages of
these two methods are that once the document is setup, it can be "gotten"
through use of the GET key and easily filled in without concern for correct
underscore placement. Also the "shell" can simply be printed to allow
information to be handwritten on the lines for subsequent typing. These
methods insure uniformity and consistency among documents.

METHOD 1

EXAMPLE:

Agency: *_____   Code: *_____

* Stop Code

INSTRUCTIONS:

-       Set tabs for the beginning and end of each underline on the form.
-       Type text
-       Tab and type a begin underscore
-       Type a stop code
-       Tab and type one underscore (this causes the underscored line to
        display and also to print when the shell is printed)
-       Type an end underscore
-       Tab or space to the next position for text

TO FILL IN THE FORM:

-       Press FIND
-       Type a Stop Code
-       Press ENTER
-       Fill in the variable information
-       Press FIND
-       Press ENTER
-       Fill in the variable information
-       Repeat the steps above until all variables are filled in

METHOD 2

Type a begin underscore, stop code, the necessary number of required spaces
for the variable followed by an end underscore.

EXAMPLE:

Begin underscore Stop Code (Req. spaces) end underscore.

(Continued)

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COMPLETING THE FORM:

-   FIND the Stop Code
-   Code + 8 (replace mode)
-   Type variable information
-   Code + 8 (insert mode)
-   Repeat the steps above until all variables are filled in

EXAMPLE OF PRINTOUT:

April 22, 1983

NOTES:

1. Be sure that the length of the information to be inserted is less
    than the length of the underscore. If the insertion is too long, the
    end underscore instruction will be replaced.

2. This same general procedure is effective for all variables, i.e.,
    Named Variables, Field Names or Switch Codes.

TOPIC: Textpack Applications
SUBJECT: "Justified" Underscore
PRODUCT: All Textpacks

It is sometimes necessary to "justify" underscores while using proportional typestyles.

The following shows how it will appear in columnar format when typed "normally" (#1 & 2) and how to force all lines to end at the same point (#3). Procedure "3" is the same for non-columnar documents.

1.   This first set of columns is typed in proportional spacing. A tab has been set to start each column (except first, which is at left margin). Each line of each column begins with a begin underscore instruction and ends with an end underscore instruction. This prints just like it looks on the display.

        this is a test   this is to
        this is too   so is this
        so is this   and this
        so is this   this is a test

2.   This second set of columns is typed in proportional spacing. A tab has been set to start each column (except first). Each line of each column begins with a begin underscore instruction and ends with required spaces (to the point that the underscore is to end) and an end underscore instruction. All lines look as though they end at the same point on the screen, however, because of the character unit value differences, they print as shown below.

        this is a test   this is too
        this is too   so is this
        so is this   and this
        so is this   this is a test

3.   This third set of columns is typed in proportional spacing. A tab has been set to start each column (except first) and another set is set one space short of the point that the underscore is to end. Each line of each column begins with a begin underscore instruction and ends with a tab, a required space and an end underscore instruction. This prints exactly as it appears on the screen.

        this is a test   this is too
        this is too   so is this
        so is this   and this
        so is this   this is a test

TOPIC: Textpack Application
SUBJECT: Creating a Division Sign
PRODUCT: All Textpacks

The only keyboards that have a division sign are the symbol keyboards--it
is not on the accounting keyboards. The following steps create a division
sign:

    Code ½ index up
    Type a period
    Code backspace
    Type a capital dash (underscore)
    Code ½ index down
    Code backspace
    Type a period

Here's what it will look like:

    ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷

Another way that produces an acceptable Division Sign:

    Code ½ index up
    Type a period
    Code ½ index down
    Code backspace
    Type a dash (req hyphen)
    Code backspace
    Type a period

Here's what it will look like:

    ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷

TOPIC: Textpack Application
SUBJECT: Constructing Exclamation Point in Keyboard 7
PRODUCT: All Textpacks

Keyboard 7 does not have an exclamation point.

It is possible to construct an exclamation point by typing a period, 2
required spaces, 3 required backspaces and the apostrophe.

Here's what it will look like:

!   !   !

```
TOPIC:        Textpack Application
SUBJECT:      Bold Headings using ZICR
PRODUCT:      All Textpacks
```

By using a ZICR (Zero Index Carrier Return) it is possible to retype a heading to make it print bolder/darker.

This was tested using:

- Proportional Space
- Centering
- Underscoring
- All Capitals
- Upper or lower case

All worked fine

If you type any of the above examples with JUSTIFY/YES, the printing will not be correct.

A ZICR is created by typing a Control Key (blank key above the Request Key) plus a Carrier Return.

TOPIC: Textpack Application
SUBJECT: Technical Typing
PRODUCT: All Textpacks

To assist operators in typing technical equations, the following
procedures are suggested:

1. Create a shell document. It should include: a format change to
    ½ line spacing and adjust line endings "no" (both done in the
    line format menu). When you are back in the typing frame, type
    several lines of spaces ended with required carrier returns. (An
    estimate for number of lines might be 7, because unused lines
    will later be deleted.) The last step is to do another format
    change, choosing "return to starting choices," and end the
    document.

2. When the actual equation typing is to be done, use the "get"
    key to retrieve the shell document for the equation. Position
    where you want to begin typing the equation (possibly the base
    line from which you will fill the other levels). Then, code + 8
    will put you in the replace mode. You key the first line of the
    equation typing in a normal fashion. When the next level is to
    be typed, position the cursor first, then begin typing. What you
    are doing is replacing the spaces with symbols (or whatever
    characters make up the equation), and are unlimited as to the
    number of levels upon which you may build. After the equation is
    typed, position the cursor at the beginning of the first unused
    line of the shell document. Delete the rest. Then code + 8
    again to return to the insert mode and continue typing the rest
    of the text. This technique reduces planning and calculation
    needed to type completed, multi-level equations and eliminates
    the need to use half indices for above/below line characters.

TOPIC: Textpack Application
SUBJECT: Dot Leadering in Proportional Type
PRODUCT: All Textpacks

Dot Leadering is a horizontal line of dots or periods extending from one
point to another. Combined with the use of proportional spacing type-
styles, a high quality finished product results. It is generally produced
by special graphics or "type setting" equipment. It can be accomplished on
the Displaywriter with a few extra steps as outlined below.

1. When using proportional spacing and typing tabs to align columns, more
    predictable results are obtained if the text is formatted with specific
    tabs instead of a regularly spaced tab grid (such as the 5 space
    standard tab setting on the Textpack Programs).

    Set your formats as if you were going to type columns. Think of the
    dot leadered portion as one column and any other text as separate
    columns (see the following example).

                    EXAMPLE

            Column 1   Column 2   Column 3

            ITEM   PRICE

            Apples .... $ .79

2. When setting the formats, set a "flush right tab" for the <u>right</u> edge
    of the dot leader. Set no other tab for the dot leader portion of the
    text but do set appropriate tabs for the other information to be
    typed, i.e., flush left tabs, decimal tabs, etc.

3. Type the information (if any) that precedes the dot leadering.

4. Tab to the flush right tab that establishes the right edge of the dot
    leaders.

5. Hold down the "typamatic" period key and watch as the line of dots
    moves from right to left across your screen. Stop the dots at a
    prescribed point, if you desire an even left appearance, or allow the
    dots to get no closer than 2 or 3 spaces from the material typed at
    the left. This margin of safety will generally prevent the dot leader
    from being printed too close to, or possible printing over, the
    material typed on or to the left.

5215 Printer

With a Pin Feed Platen installed on the 5215 Printer you must alter the Printer Description of the Program to specify Continuous Paper. Simply specifying continuous paper in the document, output or merge file/text set ups is not sufficient. Unlike the 5218/28 Printer there is no switch/sensor that sets the printer to continuous. Failure to do this will result in improperly calculated left/right margins.

When this option is selected, the 5215 assumes a pin feed platen has been installed. Because a pin feed platen core can be ordered in different sizes (widths), the left edge of the paper is calculated based on continuous form being selected and the paper size instruction.

Paper must always be centered in the middle of the platen. This allows the Displaywriter to establish the left edge of the paper by:

1. Starting at the center of the platen (which would correspond to the middle of the paper).
2. Calculating how many character positions one half of the paper width is.
3. Moves that number of characters positions to the left of the center point to establish zero as the left paper edge. The left margin is then calculated from that established paper edge.

Remember, this does not correspond with the zero on the margin scale

5218/5228 Printers

With the 5218/28 Printer, the Tractor Feed should be installed prior to queueing a document to print to have the Program updated to Continuous Feed and get expected results.

Determine
Paper Size

On most Pin Feed papers, measurements should be taken from perforation to perforation, top to bottom and side to side, as a general rule of thumb. Some applications may necessitate slight deviation from the rule when taking vertical measurements. If the application is being printed on a fan fold paper with several print areas (e.g. labels) per fold, yet the application shell document dictates that each area be considered a document, measurements should be taken from the top of one print area to the top of the next. This will work well only if the spacing between areas (labels) is consistent even when crossing folds, i.e., the space between labels equals the total space between the last label and the first label on continuous folds.

(Continued)

Labels

Procedures to determine paper size: Measure from the top edge of label 1 to the top edge of label 2 (even if labels overlap), then convert to millimeters. Use option 9 for paper size. Measure in inches--round to nearest ½ inch. Multiply 25.4 to convert to millimeters.

Essential: The horizontal perforations between the labels must be ½ inch, or multiples of ½ inch, apart.

Customer Engineering
(CE) Support

In response to the question regarding overlapping labels versus labels which meet (both on continuous form paper), CE supports overlapping labels to alleviate the possibility of the "gummed on" (to continuous form paper) labels from detaching and gumming up the printwheel mechanism. If this occurs and customer calls CE to clean mechanism, a charge may be incurred.

Paper Alignment
5218/5228

After continuous paper is loaded and aligned horizontally, press load to advance the paper to the next form. Then,

• Use the (down) ↓ and (up) ↑ buttons to align the perforation with the top edge of the cardholder.

  NOTE: ↑ (up) of 1 or more lines should always be the last alignment action. This will ensure that the pins bind against the top edge of the pinfeed holes. The ↑ (up) and ↓ (down) buttons are timing - dependent. For example touch (hear one click) = 1/48" advancement. Touch for longer time (hear two clicks) = 1 line. Touch and keep depressed = continuous advancement of multiple lines.

If the ↑ (up) or ↓ (down) is pressed after the printer is stopped for any reason, and the operator does not press LOAD then:

1. Position the next perforation even with the top edge of the cardholder.

2. ↓ (down) 3 lines.

3. ↑ (up) 1 line.

4. Continue printing

TOPIC: Textpack Application
SUBJECT: Forcing Justify
PRODUCT: All Textpacks

If last line is followed by a Required Page End, the last line will not
justify, unless:

A soft Carrier Return (CR) is used on the last line and then a syllable
hyphen, a space and a Required Carrier Return (RCR) are typed. Then it
will justify.

If the last line if followed by a page format change, type a soft CR
followed by a switch code (code + k), space, switch code, space. Make sure
there is a space prior to the page end code. Paginate and print.

The system will not allow the operator to end a page with an Index. If the
operator presses the Page End following an Index, the system will auto-
matically insert a CR after the Index. The occurence of an Index termi-
nates justification of the line - that line will not be justified.

KEYSTROKE SEQUENCE ALSO CANCELLING JUSTIFY:

2 or more CR's or RCR's
RCR alone
RCR (CR) followed by a tab
RCR (CR) followed by spaces
Index return

TOPIC: Textpack Application
SUBJECT: Double Underscoring
PRODUCT: All Textpacks

Situation: A double underscored line of text is created using the
              following procedure:

              The line to be underscored has Begin Underscore (BU) and
              End Underscore (EU), CR and ½ index up, then BU, required
              spaces and EU.

Result: When printed, second underscore is not indexed ½ up.

Solution: The second line must be manual underscores. This is also
              true if you use a ZICR and ½ index down.

TOPIC: Textpack Application
SUBJECT: Alphabetic Listing Without Reportpack
PRODUCT: Textpack 4 and 6

It is possible to create an alphabetized list of names without the benefit
of Reportpack using the following procedure:

    Smith, John
    Thomas, Carol

1. Global out the comma space and replace with two apostrophes.

2. Load as spelling dictionary. (Results in alphabetization.)

3. Create a document of the spell dictionary.

4. Global out the two apostrophes with a comma space.

TOPIC: Textpack Application
SUBJECT: Restart Merge Named Variable
PRODUCT: Textpacks 3, 4 and 6

In order to restart merge of multiple sets of variables, it may be faster
to delete the variable sets successfully completed rather than indicating
systems page numbers repeatedly.

If there is a need to retain the complete variable set, first duplicate the
fill-in document.

To delete multiple sets quickly (e.g., pages 1-200 of 400), depress DEL on
page 1 of the document. When "Delete What" prompts, press GO TO. Type
the page number of the last page successfully completed. Boundary down to
page end. Press enter.

Merge shell with the remainder of the duplicated fill-in document.

```
TOPIC:      Textpack Application
SUBJECT:    Suppressing Blank Lines in Merge Named Variable
PRODUCT:    Textpacks 3, 4 and 6
```

In a named variable merge job if a variable cannot be typed as one
multi-line variable and is entered as separate variables, a blank line
will appear in a merge document if one of the variables is blank.

To avoid this, the shell document and fill-in document can be created like
this.

Example: Address that must be typed as 2 separate
          variables.

Shell document:
```
     Ⅴ name Ⅴ RCR
     Ⅴ address 1 ⅤⅤ address 2 Ⅴ RCR
     Ⅴ city Ⅴ, Ⅴ state ⅤⅤ Zip Ⅴ
```

Fill-in document:
     Example 1 - if no second line address exists

```
     Fill-in                           Merged Document
     Ⅴ name Ⅴ John Jameson RCR          John Jameson
     Ⅴ address 1Ⅴ 2347 Page Terrace RCR 2347 Page Terrace
     Ⅴ address 2 Ⅴ RCR                  Austin, TX 72752
     Ⅴ city Ⅴ Austin RCR
     Ⅴ state Ⅴ TX RCR
     Ⅴ Zip Ⅴ 72752
```

     Example 2 - if second line address exists

```
     Fill-in                           Merged Document
     Ⅴ name Ⅴ Sam Roberts RCR           Sam Roberts
     Ⅴ address 1Ⅴ 304 Circle Drive RCR  304 Circle Drive
     Ⅴ address 2Ⅴ RCR                   Apt 107
       Apt. 107 RCR                     Dallas, TX 62708 Ⅴ City
     Ⅴ Dallas RCR
     Ⅴ State Ⅴ TX RCR
     Ⅴ Zip Ⅴ 62708 RCR
```

TOPIC: Textpack Application
SUBJECT: Named Variable and Indented Format
PRODUCT: Textpacks 3, 4 and 6

It may be necessary or desirable to indent a multi-line named variable during the merge process. For example:

1. Correspondence format where the inside address (assumed to be entered as a single named variable) is printed off the left margin.
2. Documentation or forms requiring information such as a narrative, description or reference (entered as a single multi-line named variable) to be printed at a location other than the left margin.

PROCESS:

1. Set the Line Adjust option in the Fill-in document Line Format to "No". When entering single multi-line variables, end each line of the multi-line variable with a regular carrier return. This is accomplished by typing a coded carrier return as opposed to simply typing a carrier return (Required Carrier Return).
2. When creating the shell document for the named variable merge, use a Required Tab (coded tab) to accomplish Paragraph Indent (establishes a temporary left margin).

    a. If the multi-line variable information should be printed exactly as typed in the fill-in document, use a Line Format Change prior to the indent and change the line adjust option to "No".

        EXAMPLE:

        Named Variable in Fill-in =   aaaaaaa aaaaaaa aaaaaaa
                                         bbbb bbbb bbbb bbbb
                                         ccc cccc ccccc ccccc

        Final Appearance =   aaaaaaa aaaaaaa aaaaaaa
                                         bbbb bbbb bbbb bbbb
                                         ccc cccc ccccc ccccc

    b. If the multi-line variable needs to be adjusted on the right margin, leave the line adjust option set to "Yes". You may also use a Line Format Change to change the right margin as appropriate.

        EXAMPLE

        Named Variable in Fill-in =   aaaaaaaa aaaaaaa aaaaaa
                                         bbbb bbbb bbbb bbbb
                                         ccc cccc ccccc ccccc

        Final Appearance =   aaaaaaaa aaaaaaa
                                         aaaaaa bbbb
                                         bbbb bbbb
                                         bbbb ccc cccc
                                         ccccc ccccc

    c. Remember: If Line Format Changes are made, return the Formats to the original starting choices after the indented section.

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TOPIC: Textpack Application
SUBJECT: Named Variable Reference Listing
PRODUCT: Textpacks 3, 4 and 6

At times it is necessary or desirable to produce a list of all or part of
the variable information contained in a Named Variable Merge Fill-in. For
example it is often easier to proof variables in a list format (compact,
easier to read, etc.) Lists also offer a more efficient means of archiving
hard copy. The following procedure is one technique for accomplishing this
goal as quickly and simply as possible.

1. Create a shell document containing the Named Variables that you desire
    to have in your list. Format the shell (in the "Change Document
    Format" menu) to result in the desired format for the List.

2. To insure that sets of the variable information will not be split
    between pages during the pagination process, use Keep Instructions.
    A simple way to incorporate Keeps is to place an End Keep followed
    by a Begin Keep in front of the first Named Variable in your shell.

3. Merge the shell with the Fill-in. Merge to diskette without printing.
    Be sure you merge to a diskette that offers adequate space for your
    Merge Document. Keep in mind that each set of Named Variables will
    produce a short page in the document.

4. Revise the Merge Document. Add any headings, etc. you desire. Use
    the Global Search/Replace function to delete the "Begin Using Document
    Format" instruction that the Merge operation placed at the top of each
    page. Set the "Kind of Match" choice equal to "Character" and specify
    that the first search string be for a format change (select the item
    and choose the "CHG FMT" key. Specify nothing in the first replace
    string.

5. Paginate and print the document (optional).

TOPIC: Textpack Application
SUBJECT: Footnotes at End of Document
PRODUCT: Textpack 6

To make all the footnotes print on one page at the end of a document
(rather than at the bottom of each page), do the following:

Creating: Formatting: Change the formats for Outline Level 1 and 2
                 as follows:

		Level 1	Level 2
Type of Numbering	-	Arabic	Arabic
Leading Characters	-	Half Up	Tab, Half Up
Trailing Characters	-	Half Down	Half Down

                 Creating the Doc: Type the document and enter a Level 1
                 Outline (Code + Outline, Enter) at each place a footnote
                 reference number is needed.

                 At the end of the document, put a Required Page End followed
                 by a regular Page End to display a blank page.

                 On this page, type all the footnotes in the desired order.
                 Begin each one with a Level 2 Outline (Code + Outline twice,
                 Enter).

Output: Final Output: Paginate and print the document.

Revisions: Revising: To revise a footnote, cursor to the desired place
                 on the footnote page and make the necessary revisions.
                 Paginate and print.

                 Additions: To add a footnote, type a Level 1 Outline at the
                 desired place on the body text page. Then, on the footnote
                 page, cursor to the place the footnote is to be added, and
                 enter a Level 2 Outline, then type in the new footnote text.
                 Paginate and print.

                 Deletions: To delete a footnote, delete the appropriate
                 outline and formatted text instructions in the body text,
                 then go to the footnote page and delete the entire footnote,
                 including the outline instructions. Paginate and print.

TOPIC: Textpack Application
SUBJECT: Combining Documents Containing Footnotes
PRODUCT: Textpack 6

Merge Task is used to combine documents containing footnotes. Duplicate
document cannot be used. Following is the procedure:

1.   Place Named Variable in the body text of the first document (Doc A).

2.   Create a fill-in document using that variable with an Include
      Instruction to include the second document (Doc B).

3.   Merge the first document (Doc A) with the fill-in.

4.   Specify a Merged Document Name in the Merge menu.

5.   Select Change Pagination Choices in the Merge Menu.

6.   Specify Collect Footnotes = Yes in the Change Pagination Choices
      menu.

7.   Change the option to print in the Merge menu if desired.

TOPIC: Textpack Application
SUBJECT: Underscoring Footnote Reference
PRODUCT: Textpack 6

It may be desired to underscore the footnote reference in the body text of
a document. The recommended method is to use a word underscore. However,
operators may choose not to space between the text and the reference, or
they may use a required space to "tie" the reference to the sentence.

In this case, word underscore will underscore the word preceeding the
reference.

To underscore just the footnote reference in the body text:

1.   Prior to creating the footnote enter a begin underscore instruction
     and an end underscore instruction.

2.   Cursor back 1 space so that the end underscore instruction is highlighted.

3.   Proceed with normal steps to create footnote.

TOPIC: Textpack Application
SUBJECT: Align Outline on Flush Right Tabs
PRODUCT: Textpack 6

Following are the instructions necessary to create an auto outline and align the outline characters on a flush right tab.

1. Go to the Create/Revise Menu.
2. Change Document Format.
3. Change Margins & Tabs so that a Flush Right
    Tab is set for the desired indent level.
4. Change Outline Level Format for Format Level desiring the change.
5. Change Leading Characters to a REGULAR TAB.
    Change Trailing Characters to a PERIOD (if desired), REQUIRED TAB, REQUIRED BACKSPACE, REQUIRED TAB.
6. If the operator does not allow for enough characters before setting the right flush tab, it will not look aligned on the screen but will print correctly (example: only 5 places set before the right right flush tab), it may look like this:

                        X.
                       XXX.
                      XXXVI.
                      XXXVII.
                     XXXVIII.

    (NOTE: THIS WILL WORK ON ALL PITCHES 10, 11, 12 & 15)

EXAMPLE OF HOW IT WILL PRINT:

    X.   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXX XXXX XXXX
            XXXX XX XX XX XX .

  XXX.   XXXX X X X XXXX XXXX XXX XXX XXXXXXXXX XXXXXX XXXXX XXX XX
            XXXX XX XX XX XX XXX X X .

 XXXVI.   XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XX X X XX X X X XX XXX
            XXX XX X.

XXXVII.   XXX XX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
            XX XXX .

XXXVIII.   XX XXX XX XX XX X.

TOPIC: Reportpack Application
SUBJECT: Repetitive Letters, Printing From Other Drawer When Present
              Drawer is Empty.
PRODUCT: Reportpack

Often when merging hundreds of repetitive letters, it is desired that the
Displaywriter printer automatically switch to the other drawer when the paper
drawer currently in use is (nearly) empty. In this way printing can continue,
uninterrupted, while paper is loaded into the empty drawer and the merge cycle
runs to completion. This application offers an additional benefit to the
Displaywriter operator. Starting with two full drawers, a merge job that
produces less than 390 total pages can be produced without operator intervention.

This application cannot be accomplished using normal procedures for repetitive
letters, but it can be done using report generation to produce the same
result--repetitive letters.

LOGIC

Report Preface   A counting buffer is placed in report preface (Count = 0).

Record Detail   Each time a letter is printed, one is added to the counter
                      (Count = Count + 1) and the current count is tested against
                      the variables "X" and "Y". The variable "X" will test for
                      the top drawer and "Y" will count a total for both the top
                      and the bottom drawers. Since "X" is counting 195 letters,
                      when the 195 have been printed, "X" will be equal to 0, which
                      is equivalent to being empty. At that point a conditional
                      statement is accessed that contains a page format change
                      instructing the Displaywriter to feed paper from the bottom
                      paper drawer. Counting will continue for another 195 letters
                      from the bottom drawer through the use of the "Y" counter.
                      When "Y" reaches 0, another conditional instruction is acted
                      upon that contains a page format change which directs the
                      printing paper source back to the top drawer and sets the
                      counting buffer back to the original number, 0. This process
                      will continue until printing is completed.

EXAMPLE

Page 1 of Shell   †Report Preface†
                      †Count = 0†
                      †Record Detail†

                      Type Letter and All Variables

                      †Count = Count + 1†
                      †X = Count - 195†
                      †Y = Count - 390†
                      †If empty,X† (Page End)

                      (Continued)

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Page 2 of Shell	(Page Format Change to change the printing paper source to the bottom drawer) †End If††If Empty, Y† (Page End)
Page 3 of Shell	(Page Format Change to change the printer paper source to the top drawer) †Count = 0† †End If†(Required Page End)
<u>Things To</u> <u>Remember</u>	The maximum paper capacity is 200 sheets per drawer. To avoid an empty drawer condition, which will require operator intervention and halt the merge, 200 and 400 are not used in the count instructions. One blank sheet will be fed each time the printer changes drawers because a Page End/Page Format Change/Required Page End condition is encountered at that time. In a printer sharing environment, any document that accesses both paper drawers will require operator intervention to respond to the prompt, "Put paper size (xxxx) in drawer. Start Printer.", as each drawer is accessed. The same is true for the <u>first</u> document printed after IPL in a standalone environment. To eliminate having to have an operator present when a drawer change occurs, a <u>two-page</u> "dummy document" is placed in the print queue, but not started, prior to setting up the merge file/text. The "dummy document" can have either a printing paper source = 3 instruction or a paper 1 instruction for the first page and a page format change on page 2 with a paper 2 instruction. After setting up the merge file/text and receiving the message "Merge File/Text will continue when documents now queued are printed.", the operator starts the printer and responds to the prompts for both paper drawers of the "dummy document". This procedure eliminates the need for operator intervention when printing the merged job that follows the "dummy document".

TOPIC: Reportpack Application
SUBJECT: Print Records with Highest or Lowest Field
PRODUCT: Reportpack

The Displaywriter can determine not only the lowest and highest entry in a math field and print it, it can also print fields from the related record(s).

To determine the lowest entry and print it and additional fields, use the following procedures. (Separate shells for high and low are necessary).

Prepare the shell as usual with the exception of Record Group Summary or Report Summary. In the appropriate summary use summary math to determine the lowest entry of the desired field. Next specifiy the fields to be printed from the record.

In Merge File/Text, sort the file from high to low on the math field being used in the summary math calculation. Select records with the subject math field greater than zero.

Summary instructions will only print fields from the last record found, so there can only be one "low" entry in the field.

For the highest entry the procedure is the same except sort will be from low to high and selection greater than zero is not necessary. Summary math will be for highest entry.

TOPIC: Reportpack Application
SUBJECT: Plus Sign in File and Math Formats
PRODUCT: Reportpack

The situation is when the particular math field in a file is entered in
whole numbers. Certain fields have a "+" before the number. All fields
should have dollars and cents in the merged document.

Using the math formats the customer instructed all fields to print in the
dollars and cents format. This works fine except that the "+" sign is
dropped. If the machine math defaults (0) are used, the "+" prints and the
numbers do not have the correct format.

Example:	1,000.00	1000
	100.00	100
	100.25	100.25
	1,000.25	1000.25
	100.00	+100
	1,000.00	+1000
	100.25	+100.25
	1,000.25	+1000.25
	4,401.00	4,401.00

Workaround: Merge to disk and insert the "+" sign or store as 2
fields.

TOPIC: Reportpack Application
SUBJECT: Simulating Label Logic
PRODUCT: Reportpack

It is necessary to print labels (1 up) and some of the fields will be
empty. Multi-column function is needed for label logic (to drop the
blank lines to the bottom of the entry), but multi-column instructions
cannot be used with only one set of columns or labels.

Following is a copy of the shell with the file instructions and the
conditional statement. In the file that will be merged with this shell,
there are four address fields that may or may not contain data.

Label Shell   /Record Detail/
With File   ▼First▼ ▼Last▼
Instructions   ▼Address 1▼
                     /If not empty, address 2/▼address 2/RCR
                     /End If//If not empty, address 3/▼ address 3/RCR
                     /End if//If not empty, address 4/▼ address 4/RCR
                     /End if/▼City▼,▼State▼ ▼Zip▼/If empty, address 2/RCR
                     /End If//If empty, address 3/RCR
                     /End If//If empty, address 4/RCR
                     /End If/

                NOTE: 1. First line = first line of label

                       2. End Keep/Begin Keep instructions
                           should be entered at the beginning
                           of the first line of variables to prevent
                           splitting of addresses between pages.

                       3. To figure the number of Carrier Returns in
                           the Record Detail measure in lines/inches
                           from the top of one label to the top of
                           the next. Count 1 carrier return for off-
                           setting conditions.

TOPIC: Reportpack Application
SUBJECT: Merge File/Text Using Conditional
PRODUCT: Reportpack

Problem: There are 5 lines of information on left margin. The 2nd line
may or may not be empty. There are 5 lines of information on the right
and the 2nd line may or may not be empty.

EXAMPLE: Jerry Carlson   Jim Blake
                P. O. Box 333   President
                456 Elm St.   678 Main St.
                Dallas, TX 55555   Waco, TX 66666
                456-6789   123-4567

                Jerry Carlson   Jim Blake, President
                456 Elm St.   678 Main St.
                Dallas, TX 55555   Waco, TX 66666
                456-6789   123-4567

                Jerry Carlson   Jim Blake
                PO Box 333   678 Main St.
                456 Elm St.   Waco, TX 66666
                456-6789   123-4567

                Jerry Carlson   Jim Blake
                PO Box 333   678 Main St.
                456 Elm St.   Waco, TX 66666
                Dallas, TX 55555   123-4567
                456-6789

Solution: This can be handled by conditional statements. Your informa-
tion under record detail would look like this:

/name/TAB/supplier name/RCR
/if empty,PO Box/address/end if//if not empty,PO Box/PO Box/
end if/TAB/if empty, supplier title/supplier address/RCR
/end if//if not empty, supplier title/supplier title/RCR
/end if//if empty,PO Box/city/end if//if not empty,PO Box/address/
end if/TAB/if empty,supplier title/supplier city/RCR
/end if//if not empty,supplier title/supplier address/RCR
/end if//if empty,PO Box/phone/end if/if not empty,PO Box/city/
end if/TAB/if empty,supplier title/supplier phone/RCR
/end if//if not empty,supplier title/supplier city/RCR
/end if//if empty,PO Box//end if//if not empty,PO Box/phone/
end if/TAB/if empty,supplier title/RCR
/end if//if not empty,supplier title/supplier phone/RCR
/end if/RCR

As you can see, the key fields for all the conditional statements are the
PO Box and the Supplier's Title. If they are empty the list would follow
one way and if they are not empty that list would be changed.

TOPIC: Reportpack Application
SUBJECT: Numbering Items in Merge File/Text
PRODUCT: Reportpack

For automatic numbering of items, set up a buffer in report preface equal
to 0 (Number = 0). In record detail, have the math statement /number =
number + 1/ and have it print the variable ∀number∀req. tab ∀question∀.

Shell   Report Preface: /Number = 0 /
               Record Detail: / Number = Number + 1 /
               ∀Number∀required tab∀variable∀

In order to record a document and convert it later to a file, it is important to understand what the Reportpack conversion menu choices will be.

VALID FIELD OR RECORD SEPARATORS:

Carrier Return (CR)	Space
Horizontal Tab (HT)	Stop
Required Tab	Subscript
Index	Superscript
Index Return (IRT)	Switch
Page End (PE)	Syllable Hyphen
Required Carrier Return (RCR)	Word Underscore
Required Hyphen	Zero Index Carrier
Required Page End (RPE)	Return (ZICR)
Required Space (RSP)	Line Format Change (LFC)
Return Line Format Change (RLFC)	Begin Underscore
	End Underscore

CONVERSION RULES MENU CHOICES:

ID	ITEM	CHOICE	CHOICES
a	Field Separator	(HT)	
b	Alternate Field Separator	(IRT)	
c	Record Separator	(RCR)	
d	Alternate Record Separator	(RCR)	
e	Comment Begin	(RSP)	
f	Use of First Field	1	1=Ignore
		2	2=Convert as normal field

OTHER CONVERSION INFORMATION:

o   Comment begin (option "e") specifies text to be ignored in conversion. Comment begin characters will be recognized only if they occur at the beginning of the document, immediately following another comment or immediately following a record separator character.

o   Deletes to next CR, RCR, IRT, ZICR, PE, RPE, LFC, RLFC regardless of delimiters set.

Math and character fields must be typed using the keyboard you expect to use to convert that document to a file.

(Continued)

o   The document to be converted can contain fewer fields than are defined in the new file.

In addition to the above information, strict and consistent recording procedures _must_ be followed.

TOPIC: Reportpack Application
SUBJECT: Report Generation using Paper 3
PRODUCT: Reportpack

What is desired for output is Page 1, letterhead from bottom drawer. Page
2, etc. numbered--to reset with each client.

If record group definitions is being used to pull the documents together by
client name, number, etc., put a page format change as the last instruction
in the record group summary. To do this type a Page End or Required Page
End following the last group summary instruction. On the new page type a
change format and choose all but 1st page and page number 2. End the
document--don't type anything else.

NOTE: The document format governs the first client. Document format
should be paper 3, all but 1st page and the proper page numbering. This
works extremely well--an extra page isn't printed between clients as one
might think.

If the report has a "report summary" this summary will print on a page by
itself from the bottom drawer. If customer needs a different format for
the last page, store to diskette and revise page format on that page.

TOPIC: Reportpack Application
SUBJECT: Nested Conditionals Needed in Merge File/Text
PRODUCT: Reportpack

Frequently a Merge File/Text application requires the use of nested conditional text. Nested conditional text, of course, is not allowed. However, a math buffer <u>can</u> be used to test the <u>condition</u> of multiple fields.

For example, consider this problem: We want to print a salutation using Mr., Ms. or Mr. & Mrs. based on which fields in the file are not empty.

Rec ID	first n	first f	last name
1	Bob		Jones
2	Jeff	Joan	Smith
3		Tina	Doe
4	John	Jane	Anderson

First we must create a buffer, then we can add numbers to the buffer based on which fields are not empty:

```
/ x = 0 /
/ if not empty, first n / / x = x + 1 /
/ end if // if not empty, first f / / x = x + 2 /
/ end if /
```

Now we can test for each of the three possible conditions:
```
/ y = x - 1 /
/ if empty, y / Dear Mr. V last name V,RCR
/ end if / / y = x - 2 /
/ if empty, y / Dear Ms. V last name V,RCR
/ end if / / Y = X - 3 /
/ if empty, Y / Dear Mr. & Mrs. V last name V,RCR
/ end if V
```

The printout will look like this:
Rec ID 1 Dear Mr. Jones,
Rec ID 2 Dear Mr. & Mrs. Smith
Rec ID 3 Dear Ms. Doe,
Rec ID 4 Dear Mr. & Mrs. Anderson

TOPIC: Reportpack Application
SUBJECT: Blank Lines Needed in Multi-Column
PRODUCT: Reportpack

Label logic in multi-column file listing suppresses blank lines.

Occasionally an operator has need to produce a report where variables or
constant text are separated by multiple carrier returns. For example:

        ⱯNAMEⱯ RCR
        RCR
        RCR
        -constant text-

To keep label logic from deleting the required carrier returns between the
variable and constant text and adding them to the end, place a space on the
line prior to the required carrier return. For example:

        ⱯNAMEⱯ
        (SP) RCR
        (SP) RCR
        -constant text-

TOPIC: Reportpack Application
SUBJECT: Spread Sheet
PRODUCT: Reportpack

Situation: Spread Sheet--15 Pitch or 12 pitch is being created. All
             headings fit on line but when trying to type all variables,
             the system inserts a syllable hyphen meaning that line buffer
             is full.

Solution: Type about 3/4 of the line, Zero Index Carrier Return, tab
             to the point where you left off, continue typing variables.
             (On screen it will show as 2 lines, when it is merged, it
             will print as one.)

TOPIC: Reportpack Application
SUBJECT: Multiple Letters in One Pass Using Merge File/Text
PRODUCT: Reportpack

With this application, it is possible to merge a file with different
letters (shells) in one pass. In order to accomplish this, the following
are needed:

1.   Letters - The operator will type as many letters as needed. The
     letters can include variables from the file, as well as math calcula-
     tions. (It will simplify things if the letters and file are on the
     same diskette.)

2.   File - The file should have a text field in which an include instruc-
     tion will be typed. The include instruction should have this informa-
     tion:

     a.   Name of letter that record should receive.
     b.   Name of diskette the letter is on.
     c.   Page number(s) needed from letter.

3.   Shell - This is the document name which will be used in the Merge
     File/Text menu when ready to merge. The only information needed on
     this shell is the variable name for the text field in the file with
     the include instruction.

     When the Merge File/Text menu is filled out, the operator types in the
     name of the shell (Item #3), and any other information required for
     the repetitive letters. As each record is processed, the information
     will be printed on the letter specified in the text field with the
     include instruction.

Examples:

Item 1 - Letters

     The letters are typed as normal text with variables typed where
     needed. If math calculations are to be performed, type where instruc-
     tions are needed.

Item 2 - File - Sample:

Rec ID	TITLE	LN	FN	MI
ADDRESS		CITY	STATE	AMT
LETTER (Text Field)				
1	Mr.	Long	Sam	E.
456 Main Ave		San Antonio	TX	345.00
/Include,Ltr 1,WORK,1/				
2	Mr.	Smith	John	E.
453 Long St.		San Antonio	TX	2134.00
/Include,Ltr 2,WORK,1/				

(Continued)

```
3        Miss    Anderson        Jane
546 West Ave.       Dallas          TX      321.09
/Include,Ltr 1,WORK,1/

4        Mr.     James           Mike
456 Plaza           Dallas          TX      876.45
/Include,Ltr 3,WORK,1/
```

Item 3 - Shell

The shell will have the variable name for the text field with the include instruction.

If the text field was called "LETTER" then the shell would have this information.

∇LETTER∇

TOPIC: Reportpack Application
SUBJECT: Controlling Carrier Returns in Merge File/Text
PRODUCT: Reportpack

If one field, some fields, all fields, or no fields could have entries,
math can be used within the conditional text to print the carrier return
if <u>any</u> field is printed on the line.

Example 1   -character field-   -text field-
                          <u>CLASS</u>   (req tab)   <u>SIGNIFICANT COMMENTS</u> (RCR)

                          Either of these fields could have an entry, or both
                          could be blank. Therefore, conditional text on class
                          name would only print the carrier return if there was
                          a class name. What if there were comments but no
                          class name? No carrier return would print after
                          those comments. The contents of <u>both</u> fields must be
                          tested to achieve the desired output.

                          /Record Detail/ (ZICR)
                          /x = 0/ (ZICR)
                          /If Not Empty,class//x = 1/ (ZICR)
                          Vclass∀/End If//If Not Empty,comments//x = 1/ (ZICR)
                          (required tab)   Vcomments∀/End If//If Not Empty,x/ (RCR)
                          /End If/

                          The value of "x" would remain zero unless one of the
                          conditional text statements was executed.

Example 2   If several fields are to print on the line, the math
                          must be done first. The entire line of variables are
                          printed based upon the value of "x".

                          <u>DATE   ANALYST   TOPIC   SUBJECT   RESOLVED</u>   (RCR)

                          /Record Detial/ (ZICR)
                          /x = 0/ (ZICR)
                          /If Not Empty,date//x = 1/ (ZICR)
                          /End If//If Not Empty,analyst//x = 1/ (ZICR)
                          /End If//If Not Empty,topic//x = 1/ (ZICR)
                          /End If//If Not Empty,subject//x = 1/ (ZICR)
                          /End If//If Not Empty,resolved//x = 1/ (ZICR)
                          /End If//If Not Empty,x/ (ZICR)
                          Vdate∀ Vanalyst∀ Vtopic∀ Vsubject∀ Vresolved∀ (RCR)
                          /End If/

                          Using this method avoids confusing ZICRs if the
                          document is merged to diskette for later revision.
                          Variables would align at the proper tabbed positions
                          because empty variables will not print.

                          NOTE: "x" must be reset to zero at the beginning of
                          record detail so that each record may be tested
                          independent of previous results.

TOPIC: Reportpack Application
SUBJECT: Variable Length Addresses
PRODUCT: Reportpack

A file is set up with several different fields for each line of an address.
If some of the fields should be empty, the shell should be set up
with conditional text instructions as follows:

        ∀title∀ ∀first∀ ∀mi∀ ∀last∀
        If Not Empty,st1⁄∀st1∀RCR
        ⁄End If⁄If Not Empty,st2⁄∀st2∀RCR
        ⁄End If⁄If Not Empty,st3⁄∀st3∀RCR
        ⁄End If⁄If Not Empty,st4⁄∀st4∀RCR
        ⁄End If⁄∀city∀, ∀state∀ ∀zip∀RCR

        Dear ∀title∀ ∀last∀:

        This is the letter.

        Sincerely,

        John Joseph, President

(st1, st2, st3, st4 are field names from the file)

The carrier return must be included in the conditional statement.
Therefore, the "END IF" <u>must</u> be on the next line. This prevents the extra
carrier returns.

Multi-Columns

"Conditional Text Instruction pair must be on one line in Multi-Columns."
This message will appear if you use above procedure in Multi-Columns.

Merge File/Text with Multi-Columns instructions manages the blank lines for
you with "label logic" so you do not need the above procedure.

TOPIC: Reportpack Application
SUBJECT: Multi-Column Sort for Horizontal Labels
PRODUCT: Reportpack

It is sometimes desired to have the Displaywriter sort horizontally instead
of the normal vertical sort during print. Printing is on mailing labels on
wide continuous form labels with up to 4 labels across the sheet.

Mechanical label strippers take the top row of labels on each pass and
to have the envelopes sorted properly for bulk mail the labels must run in
ZIP code order across the paper.

TO SEQUENCE HORIZONTALLY:

DOCUMENT FORMATS:

Page Format - Paper size choice 9, set the width equal to the label backing
width and the length as the measurement from the top edge of one label to
the top edge of the next.

First and last line must be within the limits of one label.

Margins must be wide enough to allow all columns to print.

SHELL: Multi-column output instruction as usual. Remember multi-column
uses label logic, so do not include extra "positioning" carrier returns.

When the Displaywriter prints it will "fill" the first column with one
address, move to the next label across and print the next succeeding label.
After printing the first "page" it will start on the next "row/page" and do
the same. All will be sorted horizontally.

NOTE: If tractor feed is not used, START must be depressed after each line
of labels.

TOPIC: Reportpack Application
SUBJECT: Global Change in Files
PRODUCT: Reportpack

There is no "global change" or "field update" available in the File Task
Selection menu. The following procedure utilizes global change in text
documents to achieve the same result. To accomplish this procedure it will
be necessary to merge the file to a text document, do the global change,
and then convert the text document back to a file.

Assumption: There are no required carrier returns (RCR), index carrier
                returns (ICR), or tabs in any text field that might be
                contained within the file.

I.   Create a shell document (e.g., DOCA)
      A.   Change the document format as follows:
            1.   Change line format:
                  a)   Adjust line endings (option e) = no
            2.   Change margins and tabs:
                  a)   Clear all tabs
                  b)   Set specific tabs for the fields in the file, the
                        fields will be in the same order as in the file.
                        Remember to allow enough space between tabs to accom-
                        modate the maximum field length plus at least one
                        space. To determine field length, choose Revise File
                        Description in the File Task Selection menu and then
                        choose Revise Field Description. By selecting each
                        field, it will be possible to see the choice for field
                        length for each field.

      B.   Type the shell
            1.   The idea is to use the tab as the field separator, use
                  ICR as the line ender, use the RCR as the record separator.

            Example:
                  Rec ID (tab) Field-1 (tab) Field-2 (tab) Field-3 (ICR)
                  Field-4 (RCR)

II.   Do Merge File/Text
      A.   Enter document name for shell (e.g., DOCA)
      B.   Enter output choice = 2 (file listing)
      C.   Enter print merge document = no
      D.   Enter document name for output (e.g., DOCB)

III. Revise "DOCB" to do global changes. For example, search for 1983 and
      replace with 1984.

IV.   Do Duplicate Selected Records to generate a new file description.
      A.   Enter a new file name (e.g., FILEX)
      B.   Press END when From/To menu comes up

V.   Do Convert from DOCB to FILEX
      A.   There is no need to change conversion rules

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In an application, such as legal billing, where a record group summary is to print on a specific line, it is necessary to instruct the Displaywriter when to continue record detail on a new page if the skip-to-line instruction is to be exceeded.

The application is to set up a counter to count the number of lines in the record detail as they print and to "test" the line number as conditional statement to determine whether another page is needed.

Following is a shell designed to do this:
        First line 10
        Last line 40

        /Report Preface/

            ACCOUNT SUMMARY

        /Page Heading/

            NAME   AMOUNT

        /Record Group Definition,INDUSTRY/
        /Page = 16/
        VINDUSTRYV

        /Record Detail/
        /Page = Page + 2/
        /Endpage = 34 - Page/
        /If Empty,Endpage/
        Req. PE
        /Page = 16/
        /End If/VLast_NameV,VFIRST_NAMEV VBANANCEV

        /Record Group Summary,INDUSTRY/
        /TOTAL_BALANCE = Total.BALANCE/
        /Skip to Line,35/
            Industy Balance   VTOTAL_BALANCEV
        REQ.PE

NOTES:

Page = 16
        Page is the answer variable that will accumulate the lines
        printed under the Record Detail. It is set to 16 as that is the
        first line position of Record Detail.

                        (Continued)

Page = Page +2

     Record Detail entries are double spaced therefore page is increased
     by two each time a record is printed.

Endpage = 34-Page

     Endpage is the anser variable to check whether the last line of
     Record Detail has been reached. Thirty-four (34) is the last
     line of the page that a Record Detail entry is to print. The
     page buffer is subtracted to look for an equal or empty condition.

TOPIC: Reportpack Application
SUBJECT: Aligning Answer Variables of Different Lengths
PRODUCT: Reportpack

Arithmetic variables in a file or answer variables created as the result of
math equations are often of different lengths. When merging with these
different length numbers, it is often desirable to align the numbers at the
decimal and to have the "$" in front of the numbers align. Also negative
values in "()" should be properly aligned.

EXAMPLE:

Without Decimals	With Decimals
$ 1,000,000	$ 1,000,000.00
$ 34,965	$ 34,965.29
$ 345	$ 345.36
($ 3,221)	($ 3,221.17)
($ 67)	$ 67.41)

CHANGING THE MATH FORMAT DEFAULTS

To achieve the desired results, it is necessary to change one of the math
formats. Go to TEXTPACK PROGRAM DISKETTE TASKS and choose "Change Math
Format Defaults". Pick a math format, format 1, 2, 3, or 4, and make the
following changes:

c	Number of Positions Past Decimal	0 (for dollar values without decimals) 2 (for dollar values with decimals)

For Positive Numbers:

e	Leading Characters	Required Space, $, Tab
f	Trailing Characters	Blank

For Negative Numbers:

g	Leading Characters	(, $, Tab
h	Trailing Characters	), Required Backspace

Note: Leading and trailing characters are separated in this example
         by commas. In the Change Math Format menu they are entered
         one after another with no spaces or commas separating them.

In the shell document two tab stops must be set for each variable that is to print
in this format. The first tab stop must be a regular (flush left) tab stop and
the second must be a decimal tab stop. The first tab stop is placed one space to
the left of the desired printing position of the dollar sign ($). The second tab
stop, the decimal tab stop, is placed where the decimal point, or assumed decimal
point (if using variables without decimals), of the number should print.

(Continued)

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The MARGINS AND TABS Menu for the shell document will look similar to the
following example:

```
..2....:....3....:....4..°.:....5....:....6....:....7....:....8..
         /          /                /
flush left tab stop  decimal tab stop   tab stop for next variable
```

TYPING THE VARIABLE INFORMATION IN THE SHELL

When entering the variables in the shell, it is necessary to tab only to the
first tab stop and enter the variable and appropriate math format. The math
format contains the second tab instruction that moves to the decimal tab stop.
After the variable is entered, tab only one time to go to the next variable. This
next variable may not appear to be in the correct position on the shell but the
tab in the math format will move it to the correct position for printing. If a
reference copy of the shell document is printed, some of the variables may print
over each other. This is because the tab in the trailing characters of the math
format is not resolved until merged.

The variable information should appear as follows in the shell:

```
..2....:....3....:....4..°.:....5....:....6....:....7....:....8..
```

(tab) ¥variable one,1¥(tab)   ¥variable two¥

Note: This example assumes that math format 1 was selected to specify the
           changes necessary.

Note that variable two appears to be at 43, the tab stop for the decimal. When
the document is merged, variable two will print at 62.

THE FINAL PRODUCT

The final document will look like the following examples, where variable one can
be 522,345.29 or 6.23 and variable two is Credit.

```
..2....:....3....:....4..°.:....5....:....6....:....7....:....8..

                        $   522,345.29              Credit
                        $         6.23              Credit
```

In the event that there are no digits to the right of the decimal, the
numbers will align as follows.

```
                        $   522,345                 Credit
                                  6                 Credit
```

(Continued)

In the event variable one is -522,345.29 or -6.23 and variable two is a Debit, the results will be:

```
_____
..2....:....3...._.:....4...°.:....5....:....6...._.:....7....:....8..
                    ($  522,345.29)          Debit
                    ($        6.23)          Debit
```

In the event that there are no digits to the right of the decimal, the numbers will align as follows:

```
                    ($  522,345)             Debit
                    (        6)              Debit
```

TOPIC: Reportpack Application
SUBJECT: Using Select to Find Incorrect Entries
PRODUCT: Reportpack

A file has a field designated as 5 characters, however, all entries should
be 4 characters. To verify if all entries are 4 characters, go to revise/
display records and type in the field ≠.... (not equal to 4 ignore
characters).

The system will display all records with <u>more</u> or <u>less</u> than 4 characters.

TOPIC: Reportpack Application
SUBJECT: Select Fields Beginning with Spaces
PRODUCT: Reportpack

Assumption: Operator enters field data in a character field that begins
                with one or more spaces. Tries to qualify on (space)XXXXX
                where XXXX = Character String.

Result: 0 records qualified.

                "For the sake of readability, zero or more spaces can be
                inserted by the operator before or after any of the characters
                keyed outboard to represent a comparison operator or a logical
                operator--or at the beginning or at the end of field data.
                NOTE: 'that leading and trailing spaces are ignored...'"

Solution: Thus the correct selection statement for fields that begin with
                a space (or spaces) is *(*'s)XXXX where * equals ignore character
                and XXX equals character string.

TOPIC: Reportpack Application
SUBJECT: Output a Specific Number of Records
PRODUCT: Reportpack

The use of math instructions in Merge File/Text makes it possible to create
instructions that output a specific number of records. The example that is
illustrated below will create a report giving the top three sales represent-
atives, determined by amount, in each of several branch offices.

In the record group definition the Displaywriter must know how many records
are desired. This is done by entering the math equation "Count = 3".
Three is the desired number of records to be printed from each branch
office. When merging, the first field for sort must be "branch" and the
second field for sort must be "amount".

The desired result is to print only the records of the three highest sales
representatives. To do this, it is necessary to create a variable called
VstopV. The condition of VstopV, either empty or not empty, will determine
whether a record will print or not. When VstopV is not empty, the record
should be printed. In Record Group Definition, VstopV is set to 1 so that
it is not empty, causing records to print. When the desired number of
records have been printed, VstopV must become empty so that no more records
are printed.

After each qualifying record has been processed and printed, it is necessary
to reduce the value of "count" by 1. Since the value of "count" was
initially set to 3, the value of "count" decrements to 0 after 3 records
are merged from each group. Also since 0 is considered to be the same as
empty, it is possible to use the value of "count" to determine the value of
the variable VstopV.

Shell Document

    ┼Record Group Definition,branch┼
    ┼Count = 3┼
    ┼Stop = 1┼
    ┼Record Detail┼
    ┼If empty, Count┼┼Stop = 0┼
    ┼End If┼┼If not empty,Stop┼Vsales repV VbranchV VamountV
    ┼End If┼┼Count = Count -1┼
    ┼Record Group Summary,branch┼

Once the printing for one branch has been completed, the Displaywriter will
return to the Record Group Definition to begin processing records for the
next branch. The counters will be set to the beginning levels and the
printing process will be repeated for the subsequent groups.

It is necessary to sort from high to low.

TOPIC: Reportpack Application
SUBJECT: Printing Text Fields
PRODUCT: Reportpack

To print the text field away from the left margin, use a required tab
before the Ⱶtext field nameⱵ.

If you have information to print before and/or after the text field, key
the information on the appropriate line, tabbing thru the text field
position, ZICR, Require Tab and Ⱶtext field nameⱵ RCR.

NOTE: This procedure is appropriate for the printing of a single text
field.

TOPIC: Reportpack Application
SUBJECT: Conditional Text on Greater or Lesser Than
PRODUCT: Reportpack

Frequently it is desired to know how to do conditional text based on
whether a math field or answer variable (NUMBER 1) contains a number that's
greater or less than another answer variable, math field, or known number
(NUMBER 2 in following example).

To do this, use the following formula:

    $\neq$ X = 1000000000 - NUMBER2 $\neq$
    $\neq$ X = X + NUMBER 1 $\neq$
    $\neq$ X = X $\div$ 100000000000000 $\neq$
    $\neq$ X = X $\div$ 10000000000 $\neq$

    $\neq$ IF NOT EMPTY, X $\neq$ NUMBER 1 IS EQUAL TO OR
    GREATER THAN NUMBER 2

    $\neq$ IF EMPTY, X $\neq$ NUMBER 1 IS LESS THAN NUMBER 2

NOTE: Since this formula truncates the numbers, numbers with more than 4
positions to the right of the decimal will have those numbers truncated.
This procedure does not work reliably for numbers that are greater than
10,007,999,999,999 or less than -1,999,999,999.

TOPIC: Reportpack Application
SUBJECT: Conditional Text on Negative or Positive
PRODUCT: Reportpack

Following are the instructions to check for a negative number in a math
field or answer variable.

To treat a negative number differently than a positive number, use the
following formula.

    ≠ X = ANSWER + 1000000000 ≠
    ≠ X = X ÷ 100,000,000,000,000 ≠
    ≠ X = X ÷ 10,000,000,000 ≠

    ≠ IF EMPTY, X ≠ ANSWER IS NEGATIVE

    ≠ IF NOT EMPTY, X ≠ ANSWER IS POSITIVE

NOTE: Since this formula truncates the numbers, numbers with more than 4
positions to the right of the decimal will have those numbers truncated.
This procedure does not work reliably for numbers that are more than
10,007,999,999,999 or less than -1,999,999,999.

TOPIC: Chartpack Application
SUBJECT: Creating a Long Free-Form Chart
PRODUCT: Chartpack

The maximum typing area for a Free-Form chart is 80, 12 pitch characters
wide and 60 lines long. Certain charts may require a longer typing area
than a single chart allows. Following is a procedure for creating a
chart to print on 8.5x14 inch paper which will be 82 lines long.

The first step will be to divide the chart in half. The top half will be
created as one chart and the bottom half, as a separate chart. A shell
and fill-in document will be created to control positioning of the charts
when they print through Merge Tasks. After the top half-chart has
printed, the paper will be reinserted to print the bottom half-chart. It
would be helpful to design the chart on graph paper prior to creating the
top and bottom "half-charts". Each chart will have 42 lines.

NOTE: The following instructions assume that the entire 84 lines will
           be used.

CREATING THE TOP HALF-CHART

1.   Select Creat Chart from the CHART TASKS menu.
2.   Change the paper size to 5 = 8.5 x 14
3.   Change Type of Chart to 4 = Free-Form.
4.   In the Chart Display area, create the top half of the chart. Do not
      type below line 53.
5.   Store the chart.

CREATING THE BOTTOM HALF-CHART

1.   Select Create Chart from the CHART TASKS menu.
2.   Change the paper size to 5 = 8.5 x 14
3.   Change Type of Chart to 4 = Free Form.
4.   In the Chart Display area, create the bottom half of the chart. Do
      not type below line 53. Remember, the top line of this chart is the
      middle of the chart.
5.   Store the chart.

CREATING THE SHELL DOCUMENT

1.   Select Create Document from the TYPING TASKS menu.
2.   Name the document and diskette.
3.   In the Create/Revise menu, select "b. Change document format".
4.   Make the following format changes:
      Page Format   Margins and Tabs
      First typing line = 1   Left margin = 0
      Last typing line = 42   Right margin = 102
      Paper size = 5 (8.5x14)
5.   On page 1 of the document, type an Include Chart instruction indicating
      the name of the top half-chart and the diskette on which it is
      stored.
6.   Page End

(Continued)

7. On page 2 of the document, press CHG FMT and make the following
    format changes:
    Page Format
    First typing line = 41
    Last typing line = 84
8. Type an Include Chart instruction indicating the name of the bottom
    half-chart and the diskette on which it is stored.
9. End the document.

CREATING THE FILL-IN DOCUMENT

1. Select Create Document from the TYPING TASKS menu.
2. Name the document.
3. Press ENTER until you are on page 1.
4. End the document.

MERGING THE SHELL WITH THE FILL-IN DOCUMENT

1. Select Merge Tasks from the TASK SELECTION MENU.
2. Select Merge with Named Variables from the Merge menu.
3. Indicate the names of the shell and fill-in documents and the
    diskette on which they are stored.
4. Change Paper Handling to 1 = Manual feed.
5. Follow the prompts to load paper and start the printer.
6. After the top chart has printed, reinsert the paper and follow the
    prompts to load and start the printer. Be careful to insert the
    paper in the same position as you did for the top chart.

TOPIC: Chartpack Application
SUBJECT: Merging Charts with Text
PRODUCT: Chartpack

Charts can be merged to print within a text document through Merge Tasks in
Textpack 4 or 6.

An Include Chart instruction can appear in either the shell or fill-in
document.

Merged output with resolved Charts cannot be stored to a Merged Document.

If the chart is to be included in a document containing footnotes, do not
paginate the document prior to merge. The merge operation will handle
pagination and footnote resolution. If the chart Include Instruction is
entered in a document with footnotes which has been paginated, delete the
footnote formatting controls and the resolved footnotes prior to merge.

TOPIC: Chartpack Application
SUBJECT: Creating a Wide Free-Form Chart
PRODUCT: Chartpack

The maximum typing width for charts is 80, 12 pitch characters. Certain
charts may require a wider typing area than a single chart allows.
Following is a procedure for creating Wide Free-Form charts which can have
a maximum width of 156 characters for paper that is 14X8.5 inches or 116
characters for paper that is 11X8.5 inches. The chart will be divided in
half and each half created as a separate chart. Each "half-chart" will
then be merged with a unique shell and the paper fed through twice.

It would be helpful to design the chart on graph paper prior to creating it
on the display. The chart can start on line 4 and extend to line 48.

Follow the directions in the left column for 14X8.5 inch paper and the
right column for paper that is 11X8.5 inches.

Creating the left half of the chart:

14X8.5 inch paper

° Select Create Chart in the CHART
  TASKS menu.

° Change Paper Size to 14X8.5 inches.
° Change Type of Chart to Free-Form.

° In the Display Chart frame, create
  the left half of the chart. DO NOT
  type beyond 120 on the margin scale
  so that this chart will be exactly
  half of the entire chart.

° Store the chart.

11X8.5 inch paper

° Select Create Chart in the CHART
  TASKS menu.

° Change Paper Size to 11X8.5 inches.
° Change Type of Chart to Free-Form.

° In the Display Chart frame, create
  the left half of the chart.
  DO NOT type beyond 84 on the margin
  scale so that this chart will be
  exactly half of the entire chart.

° Store the chart.

Creating the right half of the chart:

14X8.5 inch paper

° Select Create Chart in the CHART
  TASKS menu.

° Change Paper Size to 14X8.5 inches.

° Change type of chart to Free-Form.

° In the Display Chart frame, create
  the right half of the chart.
  DO NOT type beyond 120 on the margin
  scale so that this chart will be
  exactly half of the entire chart.

° Store the chart.

11X8.5 inch paper

° Select Create Chart in the CHART
  TASKS menu.

° Change Paper Size to 11X8.5 inches.

° Change type of chart to Free-Form.

° In the Display Chart frame, create
  the right half of the chart.
  DO NOT type beyond 84 on the margin
  scale so that this chart will be
  exactly half of the entire chart.

° Store the chart.

(Continued)

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Creating the shell documents

In order to force the charts to print in the correct position, you create a shell document with Include Chart instructions. The shell document will control the format for the printing of the chart. You also will need a blank fill-in document. The charts will then be printed using merge tasks.

Left half format:

14X8.5 inch paper	11X8.5 inch paper
° Select Create Document in the TYPING TASKS menu.	° Select Create Document in the TYPING TASKS menu.
° After naming the document and diskette, stop in the Create/Revise menu.	° After naming the document and diskette, stop in the Create/Revise menu.
° Select Change Document Format and make the following format changes:	° Select Change Document Format and make the following format changes:

Page Format	Page Format
First typing line = 2	First typing line = 2
Last typing line = 49	Last typing line = 49
Paper size = 6 (14X8.5 inches)	Paper size = 4 (11X8.5 inches)
Line Format	Line Format
Adjust line endings = 2 (no)	Adjust line endings = 2 (no)
Margins and Tabs	Margins and Tabs
Left margin = 0	Left margin = 0
Right margin = 90	Right margin = 66

14X8.5	11X8.5
° On page 1 of the document, type an Include Chart instruction. Indicate the name of the left half chart and the name of the diskette on which it is stored.	° On page 1 of the document, type an Include Chart instruction. Indicate the name of the left half chart and the name of the diskette on which it is stored.
° Page End.	° Page End.

On page 2 of the shell document, press CHG FMT to define the format for the right half-chart.

Right half format:

14X8.5 inch paper	11X8.5 inch paper
Press CHG FMT and make the following format changes:	° Press CHG FMT and make the following format changes:

(Continued)

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Page Format
First typing line = 2
Last typing line = 49
Paper size = 6 (14X8.5 inches)

Line Format
Adjust line endings = 2 (no)

Margins and Tabs
Left margin = 79
Right margin = 169

o On page 2 of the document, type an
   Include Chart instruction. Indicate
   the name of the right half chart and
   the name of the diskette on which it
   is stored.

o End the document.

Page Format
First typing line = 2
Last typing line = 49
Paper size = 6 (14X8.5 inches)*
*You must select the large paper
size so that the chart will print
in the correct position. However,
you will print on 11X8.5 inch paper.

Line Format
Adjust line endings = 2 (no)

Margins and Tabs
Left margin = 66
Right margin = 141

o On page 2 of the document, type an
   Include Chart instruction. Indicate
   the name of the right half chart and
   the name of the diskette on which it
   is stored.

o End the document.

Creating the fill-in document:

The directions for creating the fill-in document are the same regardless of paper
size.

o Select Create Document in the TYPING TASKS menu.

o Name the document and diskette.

o When you reach page 1 of the document, press END.

Printing the chart:

o Select Merge Tasks from the TASK SELECTION MENU.
o Select Merge with Named Variables.
o Merge the Shell with Fill-in.
o After the left half has printed, you will be prompted to load paper for
   the right half. Remember that you are going to reinsert the paper on
   which the left half has already printed. If you are manually feeding
   the paper, be careful to insert the paper in the same position as you did
   for the printing of the left side of the chart.

TOPIC: General Communications
SUBJECT: Taking a Memory Record
PRODUCT: ASY, BSY, 3270, EDD

In step 9 of the current Problem Determination Guide the operator is instruc-
ted to push END and then press the Memory Record button. If this procedure is
followed when trying to resolve a communication problem other than a *900*
number, the Memory Record will not contain a data trace needed for Communica-
tions Link Analysis.

DO NOT press the END button. The Memory Record button must be pressed while
the error condition is present.

TOPIC: General Communications
SUBJECT: Incorrect Characters
PRODUCT: ASY, BSY

INCORRECT   Symptom: Incorrect characters received.
CHARACTERS
                   Cause: Receiver has specified wrong keyboard.

                   Solution: Change keyboard to match sender's.

SUBSTITUTE   Symptom: Substitute characters being sent.
CHARACTERS SENT
                   Cause: Sender is sending a document in a
                              different keyboard than the one it was
                              keyed in.

                   Solution: Change send keyboard to match the
                              keyboard the document was typed in.

TOPIC: General Communications
SUBJECT: Unable to Communicate
PROGRAM: ASY, BSY, 3270 DSC, EDD

Symptom: Displaywriter goes to "on line" immediately and will not
            communicate.

Cause: Wrap switch set to "test".

Solution: Move to operate position.

TOPIC: General Communications
SUBJECT: Auto Answer
PRODUCT: ASY, BSY

AUTO ANSWER Symptom: Doesn't work

             Cause: No power to modem or modem is turned off.

             Solution: Check power source and be sure modem turned on.
                or
             Cause: Modem strapped incorrectly.

             Solution: Try to answer manually; if this works, the modem
                         is strapped incorrectly. Contact the modem
                         vendor.

TOPIC: General Communications
SUBJECT: Unable to Load This Feature
PRODUCT: ASY, BSY, 3270, EDD

If PDD runs fine and all appears to be correct, unplug the modem cable from
the model and leave the switch in the operate position. Load the feature.
If it loads OK, the modem must be re-strapped. Current is coming through
Pin 18 and it should not.

This could also be caused by a misconfiguration. Check to see if Display-
writer has Port 4 as well as Ports 4A/4B. If so, either 4 or 4A/4B must be
disconnected for the feature to load.

TOPIC: General Communications
SUBJECT: Print after Receive - Unattended Mode
PRODUCT: BSY, EDD

If a tractor feeder or sheet feeder is attached and Print after Receive is being used in the <u>unattended</u> mode, the following occurs:

1. All paper feed type changes within the document will be ignored (i.e. a change to manual feed for envelopes).

2. No load paper messages will be queued.

    (Note: 5218/5228 without an auto feed attachment or 5215 without a pin feed platen will receive load paper messages.)

3. It is assumed the size of the paper in the printer has been coordinated to match the documents requirements.

4. The printer element on the printer will be used to print the document.

    The printer element/keyboard identified at IPL will be used if the printer software does not know what the "current" printer element is (i.e., something has been printed since powered on).

5. Cancel on error equals no is assumed.

    (Note: No messages will be queued to inform the operator of a "soft" error (i.e., long line), but "hard" errors which require operator intervention and stop the printing will be queued.)

6. No messages will be queued stating the document has finished printing.

```
TOPIC:        General Communications
SUBJECT:      "Unable to Establish Link" Message
PROGRAM:      ASY, BSY


Symptom:      Unable to establish link

Cause:        DSR is high at modem interface.  You should only get this if
              switched line is menu specified.  Acoustic couplers may keep
              DSR high.

Solution:     Specify non-switched line in menu and retry.  (It's more
              tolerant.)

              or

Solution:     Contact the modem vendor to restrap the modem.
```

TOPIC: General Communications
SUBJECT: Sending Documents at less than 110 BPS
PRODUCT: ASY, BSY

When using document send, the slowest speed the Displaywriter can transmit
is 110 BPS. It may be necessary to send documents to a system with a
maximum speed slower than 110 BPS. Because using document send from
Displaywriter is faster, the application using document send will fail.
The operator will need to key the message on line rather than using
Document Send.

TOPIC: ASY Communications
SUBJECT: Echoplex
PRODUCT: ASY

Data does not display-TTY	Symptom:	Keyed data does not display
	Cause:	Host not using Exhoplex and DW has Echoplex = Yes
	Solution:	Change DW to Echoplex = no or change host support
CMC	Cause:	Not in send state
	Solution:	Initiate send state
General ASY	Cause:	Cursor not at "Data Entry" position. No message displayed.
	Solution:	Boundary Down
ECHOPLEX	Symptom:	Same character displayed twice for each keystroke
	Cause:	Host using Echoplex and DWS has Echoplex no
	Solution:	Change Echoplex to yes or Change host support

TOPIC: ASY Communications
SUBJECT: Enter Key in 2741
PRODUCT: ASY

Symptom: Enter key not functioning properly.

Cause: Operator expects enter to end lines as does on 3270.

Solution: Use CR to end lines. Displaywriter is working as defined.

TOPIC: ASY Communications
SUBJECT: Receive Wrong or Bad Data
Program: ASY

Line Speed   Symptom: Bad or wrong data received

                      Cause: Wrong line speed

                      Solution: Use correct line speed

                      Cause: Wrong Parity

                      Solution: Determine correct parity or
                                 select "None"

Msg: Receive   Cause: Incorrect stop bits selected on
Data Lost   modem at 1200 BPS

                      Solution: Reduce speed on setup to 300 BPS. If
                                 it works, then contact modem vendor to
                                 correct modem strapping option.

Modem: Cause: Incompatible 1200 BPS modems

                      Solution: Use same type modem. There are
                                 no industry standards so all 212A
                                 "compatible" modems may not really be
                                 compatible.

Modem-Mode   Symptom: Parity or framing errors
Settings
                      Cause: Incorrect mode settings on modems
                                 such as 212A at 1200 BPS.

                      Solution: Reduce speed in setup to 300 BPS. If works,
                                 set modem to ASY mode if 1200 BPS ASY
                                 mode desired. May have to contact modem
                                 vendor.

TOPIC: ASY Communications
SUBJECT: Line Speed/Receive
PRODUCT: ASY

Situation: If the two Displaywriters are set at different line speeds,
             the receiving station will not go to receive status nor
             receive data. The sending station can go to send status and
             send first line of data but will return to standby status
             after carrier returning.

Solution: Revise the DWS setup(s) so that identical line speeds are
             specified.

```
TOPIC:       ASY Communications
SUBJECT:     History Store
PRODUCT:     ASY
```

When History Store is turned on, the position of the cursor at that point is
where it starts storing to the Diskette and will continue to store to the
end of memory no matter where the cursor may be or what appears on the
screen.

TOPIC: ASY Communications
SUBJECT: Print Incorrect
PRODUCT: ASY

The host sends text to Displaywriter with line ending with a ZICR and next line has an Index. To Displaywriter there is no line end. When the print buffer fills up, the line ends wherever it happens to be (could be midline).

Usually there is a pattern; i.e., - every eighth line prints short.

The document must be sent from host to Displaywriter with a supported line ending or edit document at Displaywriter to include appropriate line endings.

Note: With TTY, using the "Change Extended TTY Options" will allow appropriate modifications.

TOPIC: ASY Communications
SUBJECT: Bel Code Sent from Host
PRODUCT: ASY

It is desired to send to the Displaywriter, from a host, a Bel Code. The
Bel is a hexidecimal (hex) 07 and will cause the Displaywriter to beep. In
the hex trace, the Bel will not show as a hex 07 because of parity. The Bel
in even parity will be an '87, in odd parity a '07, and in no parity an
'87. The Bel Code can be both received and sent from the Displaywriter.
If sending a Bel, a "Code + G" would be typed.

The Bel (beep) will not sound when in a trace mode. It will sound when
receiving a hex 07 when not in a hex trace mode.

TOPIC: BSY Communications
SUBJECT: Attended Operation During Sign-On
PRODUCT: BSY

Multiple jobs containing sign-on, JCL, and text can be queued at once to
send if "wait for response" is set to yes to allow the computer to send
Displaywriter a ready message between the sign-on and JCL. If "wait for
response" is set to no, Displaywriter sends multiple jobs queued (sign-on,
JCL, text document) successively, with no pause to allow a CPU to send a
ready message or load the application program before the next job is sent.
No unattended CPU communications can take place.

TOPIC: BSY Communication
SUBJECT: FCC Register Number & Equivalency Ringer
PRODUCT: BSY

If it is necessary to provide an FCC Register number and Equivalency Ringer
to the phone company, the following list indicates the sources for that
information.

1. If the customer is using a <u>modem</u> <u>supplied</u> <u>by</u> <u>Bell</u> <u>Telephone</u>, Bell
    should provide this information.

2. If the customer is using a <u>modem</u> <u>supplied</u> <u>by</u> <u>IBM</u>, IBM must provide
    Bell Telephone with FCC Register number and the Equivalency Ringer.
    This information should be located in the Sales Manual. What IBM
    personnel should be looking for is the Registration Pin number and the
    Ring Equivalency.

3. If the customer is using a <u>third</u> <u>party</u> <u>modem</u> (neither Bell or an IBM
    supplied modem), they will have to seek out a third party that provides
    a Protective Coupler. (The FCC Register number Equivalency Ringer is
    part of this Protective Coupler.)

TOPIC: 3270 - EDD Communications
SUBJECT: Modems/RS232C
PRODUCT: 3270 DSC, EDD

When using EDD or 3270 DSC on 2 wire Switched or Leased lines, it is
important the the modems used conform to RS232C (CCITTV.25) specifications
and be strapped according to Displaywriter guidelines set forth in the
appropriate Communications Planning Guide.

Where Echo Suppression (Clamp) is used, it is vital that the delay specified
be less than the Clear To Send (CTS) delay, e.g. if CTS = 230 msc, Echo
Clamp should be 150 msc. Echo Clamp is not necessary on a 4 wire duplex
operation.

Failure to set these options correctly can result in inability to establish
an SDLC session (XID may fail) or other similar errors during transmission
due to echoing of data.

NOTE: Displaywriter does not support a modem option called "Local Copy".
If local copy is strapped on a modem, results similar to improperly strapped
Echo Clamp will be experienced.

TOPIC: 3270 - EDD Communications
SUBJECT: Error Message 505
PRODUCT: 3270 DSC

Situation: After the operator has selected feature task and loads the
             3270 DSC feature diskette, the Displaywriter does not go into
             3270 application mode but gives an Error Message 505.

Solution: One major cause for this is that the host NCP SYSGEN has
             specified a Reply Time Out (REPLY TO) less than 2 and the
             Retry Times (RETRIES) less than 7, 9, 5. The Reply Time out
             needs to be greater than 2 to accommodate the Displaywriter's
             equalization process when it first goes on line. Retry Times
             need to be high enough to insure the Displaywriter gets the
             commands.

TOPIC: 3270 EDD Communications
SUBJECT: Printing Script Files Using 3270
PRODUCT: 3270 DSC and AW

To insure correct printing of script files on this 5218 printer, the Top
Margin instruction must be at least 3 greater than the total of the Heading
Space and Heading Margin combined.

TOPIC: 3270 - EDD Communications
SUBJECT: 3270 Printing
PRODUCT: 3270

When documents are being received and printed from the host using the 3270
DSC or 3270 AW feature and a character is received which is not on the
keyboard ID being used or on one of the keyboard ID's listed in the
Textpack Program Work Station Description Menu, the Displaywriter will give
the following message: "Printer Element XXX YYY needed. Press REQST to
cancel or continue printing". The printer element (XXX) and keyboard ID
(YYY) specified will be the printer element and keyboard the Displaywriter
is presently using. This would <u>not</u> be the correct keyboard ID and could be
the wrong printer element. If the operator presses REQST and selects
"Continue Printing With Element Now On Printer", the Displaywriter will
print a substitute character (underscore) and continue with the rest of the
document. This could be confusing to the operator because the keyboard ID
specified in the message would be one of the keyboard ID's listed in the
Textpack Program Workstation Description Menu.

There is no way for the Displaywriter to know what keyboard ID was used
when the document was created. Therefore, it uses the printer element and
keyboard ID it is presently using.

The originator of the document should inform the Displaywriter operator of
all keyboard ID's used. The Displaywriter operator should list them in the
Workstation Description Menu on the Textpack program and then the problem
would not occur.

TOPIC: 3270 - EDD Communications
SUBJECT: EDD Workstation Description
PRODUCT: EDD

The EDD (SR800) program specification does not support alternate task
capability and states that a minimum memory requirement of 320K is
necessary.

Problem: An operator who has personalized the workstation description
             to support alternate tasks will encounter varying symptoms when
             trying to load and access the document distribution feature
             task. The symptoms are as follows:

             TP4, "F" & "G" levels post the following messages.
             Partition #1: "not enough memory to load feature task".
             Partition #2: "selected alternate task is not supported."

             TP6 "G" Level.
             Partition #1 ABEND *900* 0034 9C01...
             Partition #2 "selected alternate task not supported.

Solution: Change workstation description Alternate Task Support = no.

```
TOPIC:        3270 - EDD Communications
SUBJECT:      EDD Error Messages
PRODUCT:      EDD
```

In some cases the Class Error messages posted by Displaywriter can be misleading.

It is important to also refer to the DISOSS Exception Code (EC) displayed on the same line as the Class Error message.

Example: C2 Data Not Found   C30708

In this example "Data Not Found" could be misleading to an operator. The exception code EC30708 more specifically indicated lack of a valid password for the signed on Local Address.

The EC's can be located by Host personnel in the DISOSS Diagnosis Guide or in Displaywriter Host Attach Programming Guide, pages 100 - 102.

TOPIC: Compatibility.
SUBJECT: 5520/Character Overflow to the Displaywriter
PRODUCT: BSY

Documents communicated from 5520 to Displaywriter for playout purposes
using justified format (established on receive document format at Display-
writer) may override the right margin by exactly one character giving
unacceptable printout.

Reason: When 5520 paginates, it paginates one character more than
                Displaywriter. For example-assume margins of 18 and 90.
                On 5520, a maximum of 73 characters can exist on a line
                using these margins. (A character can exist in the 90th
                position.) On Displaywriter, a maximum of 72 characters
                can exists using these margins. (A character can not exists
                in the 90th position.)

TOPIC: Compatibility
SUBJECT: Multi-Column to OS/6, 6640 or 6670
PRODUCT: BSY

Solution: Multi-Column list is output to Diskette the following way:

             name for first column (ZICR)
             (tabs to reach point of 2nd column) name for second
             column (RCR)
             address for first column (ZICR)
             (tabs to reach point of 2nd column) address (ZICR)
             (tabs to reach point of 3rd column) address (RCR)
             etc.

             Output to diskette uses five space tab grid.

Result: When communicated to the OS/6 or output to card, the ZICR's
             are recognized. Therefore, each line contains too many tabs
             and causes long line on OS/6. Lines wrap when output to card
             are played back on a 6670 or 6640.

Solution: The workaround is to set individual tabs for each column in
             the shell document before merge with an extra tab set just
             prior to the last column if outputting 3 columns. If out-
             putting 4 columns, set an extra tab before 3rd column and 2
             extra tabs before 4th column.

             Example:

             Three column output. Set tabs in shell at 35, 64
             (extra tab) and 65.

             After merging to diskette, delete the format change at the
             top of the first page of document and paginate with adjust
             line ending and adjust page endings no.

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TOPIC: Compatibility
SUBJECT: Duplex Other Than First Page To 6670
PRODUCT: BSY

Situation: Wants the first pages of a document not to be duplexed but
                wants the rest of the document duplexed.

Solution: Type a footer with command ,feed Ø. On the page you want
                duplexing to begin, delete the ,feed Ø command from footer.

Consideration: Duplex should be turned on in the 6670 arrangement in
                order to prevent a blank first page.

TOPIC: Compatibility
SUBJECT: Displaywriter and 6670 Publications
PRODUCT: BSY

A number of publications regarding Displaywriter/6670 Implementation have been developed and are available through Mechanicsburg.

"Setting Up Text Stored Formats in an IBM Displaywriter environment" - S544-3023.

"Formatting Documents in the IBM Displaywriter Environment" - S544-3027.

"Printing Documents in the IBM Displaywriter Environment" - S544-3031.

"Trouble Shooting in an IBM Displaywriter Environment" - S544-3037.

Customers/IBM Support Personnel will be able to obtain copies through normal ordering procedures.

TOPIC: Compatibility
SUBJECT: Footnotes to 6670
PRODUCT: Textpack 6 and BSY

In single spacing, the 6670 inserts a ½ index down anytime a carrier return is followed by ½ index up. This is done to prevent overstriking characters, even if the carrier return is on a line by itself, i.e., a blank line.

The default "leading character" in footnotes is ½ index up. This means each footnote on a page causes the footnote text and the footer, if there is one, to print ½ space too low on the page. Therefore, rather than using the ½ index up as the "leading character", use the symbol typestyle on the 6670 and a keyboard change so the superscript numbers are used for the footnote number at the bottom of the page.

TOPIC: Compatibility
SUBJECT: Accessing Data 1 - Rotated on 6670
PRODUCT: BSY

When typing on the Displaywriter for printing on the 6670 in Data
1 - Rotated, if you select paper 9 in the Page Format Menu and specify the
paper width as 279.4 and the length as 279.4 you obtain the following
benefits.

1.   You avoid the conflict message prompts on the Displaywriter.

2.   You can set your right margin to accommodate 132 characters, at the
      Displaywriter.

3.   You can leave your last line at 60, since you can print 60 lines of
      Data 1 - Rotated on 11 x 8½ paper.

4.   You leave your printing paper source at 1.

TOPIC: Compatibility
SUBJECT: First Line Registration at 6670
PRODUCT: BSY

(Also reference "Formatting Documents in the IBM Displaywriter
Environment." See page 213.)

The positioning of the first typing line for body text is incorrect in an
entire document or specific pages. All of the following conditions in the
situation exist.

*   Displaywriter Headers are not being used.
*   The affected page begins with line spacing other than single.
*   The body text first typing line option controlling the affected page
    is set at 4 or greater.

Cause: Per specification, during the page image process first typing
          line positioning is determined as follows:

1.   All header and footer text will be imaged on the page as it would
     appear in a printed form.
2.   The page image process will issue a first typing line instruction of 3.
3.   If a header exists, it will be in single spacing, play mode, and the
     appropriate number of indexes will be inserted to reach the specified
     first typing line for the body text. The interline spacing value of
     the indexes will be 1.
4.   If no header exists, then the page image process will insert the
     appropriate number of indexes in the <u>current</u> value for interline
     spacing to coordinate as closely as possible (but not exceed) to the
     desired first body text line print position. Therefore, depending on
     the first typing line number and the value of the indexes, the first
     line may or may not be as expected.

Example 1:   Document Format:
               Interline spacing = 1.5
               First Typing Line, First Page = 7
               First Typing Line, Following Pages = 7
               Header Typing Line = 3
               No header is actually keyed

          Page image process will:
               Issue first line 3 command
               Insert 2 indexes with an interline spacing
               value of 1.5 each in an attempt to get as
               close to the line 7 as possible.

          Results: First body text will print on line 6.

(Continued)

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Example 2:   Document Format:
                  Interline spacing = 2
                  First Typing Line, First Page = 7
                  First Typing Line, Following Pages = 7
                  Header Typing Line = 3
                  No header is actually keyed

             Page image process will:
                  Issue first line 3 command
                  Insert 2 indexes with an interline spacing
                  value of 2 each in an attempt to get as
                  close to the line 7 as possible.

             Results: First body text will print on line 7.

Workaround: Option 1

             Use a header in the document's master format that consists of
             merely a tab instruction. The page image process considers
             this a valid header.

Consideration:

             This should not be used if the document is a lengthy
             document where throughput speed is a consideration. (See
             Option 2)

             In all cases, only paginated documents should be communicated
             to the 6670 using an arrangement with the last line adjust
             turned off (i.e., las 6Ø Ø) and where the last line is set to a
             line equal to or greater than that of the Displaywriter
             document's format.

Required Procedures:

             When creating the document, access the document's master format
             and in the header typing area which is empty insert a tab
             instruction by pressing the tab key.

                  Note: If you are adding the header to a
                  document that already exists, any page
                  format change must be revised to contain
                  the header. Line format changes do not
                  need to be revised.

                       (Continued)

Workaround: Option 2

        Use OCL to establish the correct margin text and/or body text first
        line instruction.

Consideration:

        This procedure should be used when the designated printer will be
        the 6670 and the document will <u>not</u> alternately be printed on a
        Displaywriter printer. (The OCL will print out as text on a
        Displaywriter printer.)

        This procedure should be used when the document is lengthy and
        throughput speed is a consideration. Directing the 6670 to
        process the header/footer may improve total through put speed.

        If this procedure is used on documents that have first typing line
        changes within the document and there are heavy revisions, the
        OCL to change the first typing line may be relocated as a result
        of the revision process. Operators must take measures to insure
        that the OCL is appropriate and is in the correct location.
        As well, the operator must enter a Displaywriter page format change
        to coordinate the last typing line instruction to avoid a page
        overflow condition on the 6670.

        In all cases, only paginated documents should be communicated to the
        6670 using an arrangement with last line adjust turned off (i.e.,
        las 60 0) and where the Last Line in Displaywriter document format
        has been adjusted appropriately.

Required Procedures:

    1.   The document format in the CREATE OR REVISE Menu
        must be altered to prevent the page image process from
        inserting indexes to reach the first typing line. OCL will be
        typed by the operator on page 1 of the document to dictate
        correct placement of the body first typing line position during
        print on the 6670. The following changes must be made:

        Change Page Format Menu:
            Both First Typing Line options must be
            changed to 3.

        Last Typing Line option must be adjusted to correlate with the
        decrease in the First Typing Line option.

        EXAMPLE:
            Desired printout is to reflect body text
            begins printing on 7 and last line for body
            text is to be 60 (53 lines of body text).
            The changes to the page format are as follows:

                    (Continued)

First Typing Line, First Page = 3
First Typing Line, Following Pages = 3
Last Typing Line = 56

2. OCL should be keyed in what will be interpreted as on a single line by the Displaywriter. This is accomplished by ending OCL with a ZICR (Zero Index Carrier Return). Underscores can be used to separate commands or instructions. This will avoid OCL being included as text lines (which affect the line count) during the pagination process at the Displaywriter workstation.

EXAMPLE:

```
,mod(ZICR)        or ,mod_fir 7_ ,end(ZICR)
fir 7(ZICR)
,end(ZICR)
```

Note: If you are typing OCL in a document that already exists, any page format changes must be revised to correspond with the page format parameters in the master document format (i.e., first line 3 and last line 56). Line format changes are not affected.

3. If first typing line changes are keyed within the document, the operator must:

• Ensure that the OCL is in the correct location.
• Enter a page format change to coordinate the last typing line instruction with the change first typing line instruction to avoid a page overflow condition on the 6670.

EXAMPLE:

```
(Page 1)   ,mod(ZICR)
           fir 7(ZICR)
           , end(ZICR)
           (BODY TEXT FOR PAGE)

           PE

(Page 2)   Page Format Change = last line 53
           ,mod(ZICR)
           fir 10(ZICR)
           , end(ZICR)
           (BODY TEXT FOR PAGE)
```

```
TOPIC:        Compatibility
SUBJECT:      Duplexing at the 6670
PRODUCT:      BSY
```

The 6670 stored arrangement does not have duplex command activated. If
the Displaywriter operator types on page 1

                         ,print
                         dup 1
                         ,end

an extra sheet of paper will be fed.

How to avoid an extra sheet?

1.   Add duplex 1 to stored arrangement.

   or

2.   Press the Duplex button on the 6670 so it is active at the time the
      communications connection is made.

TOPIC: Compatibility
SUBJECT: Switch Code Merge at 6670
PRODUCT: BSY

Problem: When sending switch code variables to the 6670 to merge, extra
              index returns are inserted after every 60 lines.

Cause: The cause is that the send format is page image with OCL.

              The document format of the document containing the variable
              list was first line 7 and last line 60.

              When documents are sent to the 6670, they are formated with
              first line 3. Because the document format specified first
              line 7, 4 Index Returns were inserted at the beginning of
              each page of variables (except Page 1).

              This caused the letter corresponding with the variable set
              beginning each page to print incorrectly.

Solution: To correct, change the document format of switch code variable
              list to first line 3 or less.

TOPIC: Compatibility
SUBJECT: Double Underscores to 6670
PRODUCT: BSY

Double Underscore on 203 (Displaywriter) and on typestyle 193 (6670) prints
at the top of the printer line. It does not print under a number. There-
fore you must CR to a new line so the Double Underscores will print at the
top of the next line which positions them under the number of the previous line.

If the double underscore is not "close" enough to the number, you may type
material to be underscored, carrier return, space over, keyboard change, ½
up, double underscore, ½ down, keyboard change, carrier return.

TOPIC: Compatibility
SUBJECT: Reverse Indexes and Footnotes to 6670
PRODUCT: BSY

"PAGE OVERFLOW" message is received because the <u>Displaywriter</u> formats the
job and inserts indexes to position the footnote.

The 6670 puts in additional space for the reverse indexes if the job is
single-spaced (1½ and double spacing are O.K.).

You may use symbol font to create superscripts for the footnote numbers and
avoid the situation.

```
TOPIC:        Compatibility
SUBJECT:      6670 Pitch Changes
PRODUCT:      BSY
```

Problem: A document at 6670 has a pitch change from 10 or 12 to 11
              (proportional). The left margin is set to an odd number;
              i.e., 15, 17, 25, etc., and is unchanged. When the doucment
              is communicated to the 6670, a sheet feeds as the pitch
              changes.

Cause: When converting to proportional, the left margin is divided
              by 2 and rounded down. If the point of the "new" left margin
              varies from the "old" left margin by 4/60 or less, a sheet is
              fed.

Workaround: Change the left margin to an even number in all formats.

TOPIC: Compatibility
SUBJECT: ,Verify Output on 6670
PRODUCT: BSY

There are 2 ways to verify on the 6670 from the Displaywriter

1.   Choose "a" (send message) in the send receive document menu or "e"
     (send message) in the change setup options menu. Type: ,verify_,end.

2.   Create a document with ,verify in it. Send that document first and
     append the document that needs to be verified. (The benefit here is
     that the verify command is permanently stored.)

TOPIC: Compatibility
SUBJECT: 6670 Prints Extra Sheets
PRODUCT: BSY

If using ,print and an extra sheet feeds, send the control card as one
document and select APPEND NEXT DOCUMENT TO send the document that has
the text.

TOPIC: Compatibility
SUBJECT: Displaywriter File to OS/6 File
PRODUCT: BSY

Situation: Send a Displaywriter file into file job at the OS/6.

Solution:

1.   Convert the file to text via merge file text at Displaywriter,
     setting correct tabs, adjust no, first line 3.

2.   In the image Setup Options menu, change send document message to yes.

3.   Choose the image text only in the Define Setup Menu.

4.   When the document is added to the send queue, the send document menu
     appears. Type: ,file RCR ,end in the message area.

The document goes into a file job at the OS/6. However, the job name is
blank (changes from unused to blank). Name the job, set tabs, name numeric
fields at OS/6.

Note: Putting the name in the comment area of the Displaywriter job does
not send name.

```
TOPIC:       Compatibility
SUBJECT:     Format Changes to OS/6
PRODUCT:     BSY
```

Solution: Page or line format changes occurring as the first item on
             a page--no header text--do not create "hard" format changes
             at the OS/6. A transparent format is created.

             If the previous page is accessed before the page with the
             transparent format change, the page will print in the wrong
             format--it takes on the format of the previous page.

Workaround: Create a "dummy" header such as space or carr   returns in
             the Displaywriter document.

TOPIC: Compatibility
SUBJECT: Embedded OCL from OS/6
PRODUCT: BSY

When sending embedded OCL containing a ,PRINT from OS/6 to Displaywriter
(either embedded in text or the send options frame), the ,PRINT and instruc-
tions following are stripped out of the text job sent and updated in the
document format. Any commands or instructions not understood by Display-
writer are left in and treated as text.

    Example: First page of text contains:

        ,PR   100
        MA
        T

        ,
        1   ,T 160
        ,

The first three OCL commands and instructions will update the Document
Format. The remaining command and instruction will not be understood and
will therefore print as text.

TOPIC: Compatibility
SUBJECT: Send Envelopes to the OS/6
PRODUCT: BSY

Communicating to the OS/6 Envelopes <u>Only</u>:

Make all your changes for the envelope format in the document format (first line 13, margin 48). Type " ,cover RCR ,end" in your header. Send page format with OCL.

Communicating to OS/6 a <u>letter</u> followed by <u>several envelopes</u>:

There are two methods that work:

1. At the bottom of the letter type " ,cover RCR ,end." CR's or RCR's to bring the line down to 13 (the number will d on what the 1st line for the letter was). Require Tab, type your de address with soft CR's. End with a RCR type " ,cover RCR ,end". your CR's or RCR's then your inside address as explained above. Do not use a Page End (PE). This will cause a sheet of paper to feed. Use Keystroke Save for the ,cover RCR ,end - the CR's or RCR's - the Required Tab if possible.

2. Type the letter and PE. Page Format Change and type " ,cover RCR ,end" in the header. On the page type the correct number of CR's or RCR's to get to line 13, Required Tab and type inside address using soft CR's. End with a RCR and a PE. Have the operator Keystroke Save the CR's or RCR's and the Require Tab if possible.

    Send the format with OCL.

    Note: Format changes under ,cover are not read. If you try putting one before each ,cover - it works only for the first one unless you make 2 format changes: one for a different margin, then one for a margin set to 48. This would be cumbersome.

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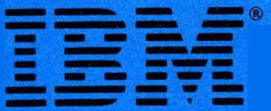SUBJECT: Footnotes and Spell Check
PRODUCT: Textpack 6

The operator must check the spelling of the document in one pass and then complete the Paginate/Hyphenate process separately when the document contains footnotes.

This is based on the fact that the Displaywriter Paginator is designed to strip out page ends (page names) and then insert them where they logically fall for the number of lines specified per page in the Page Format Menu. The Paginator does not have access to the footnote pages 9000+. This is because footnotes should never be paginated.

Due to the limitation of the Paginator not being able to access pages 9000+, Spell Check cannot access those pages during the concurrent process of Spell Check/Paginate/Hyphenate.

Spell Check by itself is not restricted from the pages 9000+. Therefore, it can access those pages when Spell Check is being processed independent of Hyphenate/Paginate.

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