

To: MTB Distribution  
From: E. J. Wallman  
Date: 1978 August 08  
Subject: Formatted Text Tables (Tabular Text) in compose.

This MTB proposes a feature for compose to format columnar or tabular text.

One of the most popular items appearing in users' requests for extensions to compose is the ability to format tabular text. Tabular text is a form of multi-column text in which the individual columns are formatted independently of each other. In normal multi-column running text, all columns have the same format (although they may have different widths) and text material overflows from one column into the next. In tabular text, each column has its own format and will force a page overflow when it is too long even though all the other columns may contain excess white space.

The reader has undoubtedly seen examples of this mode of formatting. Two instances that come to mind are Parts Lists, that are usually three or four columns each containing a different class of information about individual parts; and the ubiquitous Trouble Shooting Guide in the Users Manual for almost every electrical appliance purchased, that usually consists of three columns -- Symptom, Suspected Trouble, and Corrective Action.

As a concrete example, the end of this MTB presents an excerpt from the Owner's Manual for a popular spray/steam/dry iron. It is of interest to note that it took the author (who considers himself an experienced user of the uninstalled "ted" editor and some of its more exotic features) more than six hours to construct this small table by hand! The input text lines for the two table entries are exactly as seen in this MTB. The table rules (horizontal and verticals lines) were, of course, done with the artwork feature long present in compose.

Support for this feature requires five controls: table-define, table-on, table-off, block-begin-column, and block-end-column; and a mechanism to allow specification of the column for which input text is intended.

Documentation for the table-define, table-on, and table-off controls was inadvertently published before the feature was complete. The description of this feature is given in the following

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changes to the user documentation (AZ98, Rev. 0). The change bars appearing here show the actual changes and may or may not appear in the final Manual. Some change bars first appeared in earlier MTBs on MR7.0 compose enhancements and are merely reproduced.

Change "Controls", pages 4-24,25, to read:

table: .ta{m}

Define and control formatted table mode according to the modifier given. Up to 10 table formats may be defined but only one may be in effect at any one time. Formatted table mode is enabled with the table-on control that specifies a named table format to be used. A table format may contain up to 10 columns (see table-define control following). When in formatted table mode, input text must be supplied in one of the two following ways:

context mode

each column text input line must begin with a single decimal digit (e.g., "1Test line."). The digit indicates the column in which the text is to be composed and the text is formatted according to the parameters given for that column. By convention, the digit "0" indicates the tenth column of the pattern. Input text lines not beginning with a numeric digit are formatted according to the current page and block formatting parameters. In context mode, the input is restricted to consist solely of simple text. No special formatting or artwork is allowed.

free column mode

column text is given by enclosing it between block-begin-column and block-end-column control pairs (see the descriptions of these controls earlier in this section). The enclosed text may contain artwork, equation lines, inserted blocks and files, etc., that is, it may be freely formatted according to the user's need.

define: .tab; <name> {<l>,<w>{<f>}{<a>}:...}: no break,  
no substitution

Define table format <name>, specifying table columns with the column definition fields "l,w{<f>}{<a>}". Up to 10 columns may be defined for a table format. Each column definition field may contain four parameters.

<l> the column left margin value. These values are required and must be given in steadily increasing order for the columns defined.

- <w> the column width value. These values are required and must be separated from their associated column left margin values by a comma.
- <f> If the character immediately following a column width value is not a colon (":") or newline character, then that character is the optional column fill mode and may have values "n" for unfilled or "f" for filled. The default value for <f> is "f".
- <a> If the character immediately following a column fill mode is not a colon or newline character, then that character is the optional column alignment mode and may have the values "b" for both, "c" for centered, "l" for left, "r" for right, "i" for inside, or "o" for outside. The column alignment mode may not be given unless the column fill mode is given. The default value for <a> is "b".

If no column definitions are given, the table format entry for <name> is cancelled. If no <variable\_field> is given, all table formats are cancelled.

off: .taf; no parameters, format break, no substitution

Disable formatted table mode and return to normal text processing. If not in formatted table mode, then ignore the control.

on: .tan; <name>, format break, no substitution

Suspend normal text processing and enable formatted table mode with format <name> or, if already in formatted table mode, switch formats to the format <name>. If <name> is not given or is not a defined table format, then an error diagnostic message is produced.

Change "Summary Information", page 9-16, to read:

.bb		block-begin
Ø		inline
a {#}		artwork
c {#}		column
e {#}		equations
f {s}{,c p}		footnote
i		inline
k {#}		keep
l {#}		literal
n {<name>}{,a r}		named
p {#}		picture

Change "Summary Information", page 9-16, to read:

.be	block-end
b	all
a	art
c	column
e	equations
f	footnote
k	keep
l	literal
n	named
p	picture

Add to "Controls, page 4-12, ahead of "equation:"

column: .bbc; #, format break, no substitution

Cause a format break, processing any pending text as a short line in the current alignment mode, then begin processing input lines for column # of the currently active table format and according to the formatting parameters for that column. If not in formatted table mode (see the various forms of the table control later in this section), or # is not given, or # is not defined for the currently active table format, then an error diagnostic message is produced. Input is processed into column # until the occurrence of a block-begin-column control changing the column number, or a block-end-column control, or a block-end-all control.

Add to "Controls", page 4-13, ahead of "equation:"

column: .bec; no parameters, format break, no substitution

Cause a format break, processing any pending text as a short line in the current alignment mode, then revert to context mode input for the currently active table format. If not in formatted table mode or not in free column input mode, then ignore the control.

The next two pages show the input used for the example table on the last two page; first as constructed manually for the actual table, and second as it would be using the feature proposed here. Note that, in the manual input, all text has been carefully positioned and adjusted. In the tabular text input, context mode has been used for the headings and the very simple entry columns, while free column mode has been used for the other entry columns.

MANUAL INPUT

```

.fif
.bba
†
.spb
FABRIC DIAL FABRICS GENERAL
SETTING IRONING DIRECTIONS
†
.spb
Dry Steam
Ironing Ironing
†
.sp
A Low Steam Acetates Follow garment label for proper ironing
Zone Acrylics: ACRILAN directions. Usually only requires light
ORLON, ZEFRAN touch-up ironing with steam or dry iron,
CRESLAN as desired.
.sp
†
.sp
B Low Steam Nylons: CAPROLAN Follow garment label for proper ironing
Zone ANTRON directions. For best results steam iron
Polyesters: DACRON fabrics on wrong side. Iron fabric blends
FORTREL, VYCRON at the lower of the settings recommended
for the fibers.
.sp
" " " "
.bea

```

TABULAR TEXT INPUT

.tab head 2,17nc:20,18fc:39,41nc  
 .tab item 2,7nc:10,9nc:20,18fc:39,41fb

.fif  
 .bba

† † † †

.sp  
 .tan head  
 1FABRIC DIAL  
 1SETTING  
 2FABRICS  
 3GENERAL  
 3IRONING DIRECTIONS

† † † †

.sp  
 .tan item  
 1Dry  
 1Ironing  
 2Steam  
 2Ironing

† † † †

.sp  
 1A  
 2Low Steam Zone  
 .bbc 3  
 Acetates Acrylics: ACRILAN ORLON, ZEFran CRESLAN

.bbc 4  
 Follow garment label for proper ironing directions.  
 Usually only requires light touch-up ironing with steam or dry iron, as desired.

.taf  
 .sp

† † † †

.sp  
 .tan item  
 1B  
 2Low Steam Zone  
 .bbc 3  
 Nylons: CAPROLAN ANTRON Polyesters: DACRON FORTREL, VYCRON

.bbc 4  
 Follow garment label for proper ironing directions.  
 For best results steam iron fabrics on wrong side.  
 Iron fabric blends at the lower of the settings recommended for the fibers.

.taf  
 .sp  
 = = = =

.bea

EXAMPLE TABLE

FABRIC DIAL SETTING		FABRICS	GENERAL IRONING DIRECTIONS
Dry Ironing	Steam Ironing		
A	Low Steam Zone	Acetates Acrylics: ACRILAN ORLON, ZEFRAN CRESLAN	Follow garment label for proper ironing directions. Usually only requires light touch-up ironing with steam or dry iron, as desired.
B	Low Steam Zone	Nylons: CAPROLAN ANTRON Polyesters: DACRON FORTREL, VYCRO	Follow garment label for proper ironing directions. For best results steam iron fabrics on wrong side. Iron fabric blends at the lower of the settings recommended for the fibers.