

1 These are various tests of generating tables when the text is being generated with  
 2 line numbers at the left, activated by troff's .nm request. The complexity handling tables  
 3 in this case is that the *tbl* preprocessor uses diversions when creating tables. When  
 4 designed, *tbl*'s behavior was apparently not analyzed if line numbering was in effect. By  
 5 default, text output into diversions will have line number prefixes, leading to multiple line  
 6 number prefixes being appended at each stage of diversion processing. The tables pro-  
 7 duced in this case were effectively unreadable.

8 The main change to make numbering work properly with tables was to turn off num-  
 9 bering in diverted text and restoring it when only the diversions were reassembled at the  
 10 topmost level to produce the printed page. The challenge doing this is to design a scheme  
 11 that can handle the many levels of diversions in tables. Simple tables have only a single  
 12 level. Drawing boxes around table entries involves another level of diversion. Finally,  
 13 text blocks (table entries enclosed with T{ ... T}) involve yet another level of diversion.  
 14 Assembling all these diversion levels into a single line of a table requires quite subtle  
 15 logic so that all cases may be treated properly. The result -- simple looking -- hides some  
 16 laborious processing of text.

17 The first test case is a simple table, each line of which is a simple entry.

18 Simple table

Item	Value	Value
First	10	0.1
Second	5.2	10

22 Next comes the same table with all 28  
 23 items boxed.

Simple table		
Item	Value	Value
First	10	0.1
Second	5.2	10

Now double boxed.

Simple table		
Item	Value	Value
First	10	0.1
Second	5.2	10

33 A table with a .T& in it to change formatting.

34 Changed format table

Item	Value	Value
First	10	0.1
Second	5.2	10

38 This is a text line.

39 A more complex table. The complexity is due to the text boxes on the third infor-  
 40 mation line. The numeric data is printed in one line, then the block of texts on the left  
 41 and right are printed in two further lines. Consequently, three output stages combine to  
 42 produce the resulting table. When line numbers are added to the table, they must be

43 handled properly so that the text blocks all start by having the same output line number,  
44 though they may be different lengths and assembled in arbitrary order.

45

Complex table			
Item	Value	Value	Text
47 First	10	0.1	X
48 Second	5.2	10	X
49 This is a block of 50 text in a table 51 52	1	2	Another text block, that will be deliberately longer

53 The final table test will be one with a header. This requires help from the -me macro  
 54 package to put the header into a keep that will be included with the header of successive  
 55 pages of the table's text. A suitably modified .TH macro is needed to handle possible line  
 56 numbering properly.

57 Headed, multi-page table			
58 Item	Value	Value	Text
59 First	10	0.1	1
60 Next	5.2	10	2
61 Next	5.2	10	3
62 Next	5.2	10	4
63 Next	5.2	10	5
64 Next	5.2	10	6
65 Next	5.2	10	7
66 Next	5.2	10	8
67 Next	5.2	10	9
68 Next	5.2	10	10
69 Next	5.2	10	11
70 Next	5.2	10	12
71 Next	5.2	10	13
72 Next	5.2	10	14
73 Next	5.2	10	15
74 Next	5.2	10	16
75 Next	5.2	10	17
76 Next	5.2	10	18
77 Next	5.2	10	19
78 Next	5.2	10	20
79 Next	5.2	10	21
80 Next	5.2	10	22
81 Next	5.2	10	23
82 Next	5.2	10	24
83 Next	5.2	10	25
84 Next	5.2	10	26
85 Next	5.2	10	27
86 Next	5.2	10	28
87 Next	5.2	10	29
88 Next	5.2	10	30
89 Next	5.2	10	31
90 Next	5.2	10	32
91 Next	5.2	10	33
92 Next	5.2	10	34
93 Next	5.2	10	35

94	Headed, multi-page table			
95	Item	Value	Value	Text
96	Next	5.2	10	36
97	Next	5.2	10	37
98	Next	5.2	10	38
99	Next	5.2	10	39
100	Next	5.2	10	40
101	Next	5.2	10	41
102	Next	5.2	10	42
103	Next	5.2	10	43
104	Next	5.2	10	44
105	Next	5.2	10	45
106	Next	5.2	10	46
107	Next	5.2	10	47
108	Next	5.2	10	48
109	Next	5.2	10	49
110	Next	5.2	10	50
111	Next	5.2	10	51
112	Next	5.2	10	52
113	Next	5.2	10	53
114	Next	5.2	10	54
115	Next	5.2	10	55
116	Next	5.2	10	56
117	Next	5.2	10	57
118	Next	5.2	10	58
119	Next	5.2	10	59
120	Next	5.2	10	60
121	Next	5.2	10	61
122	Next	5.2	10	62
123	Next	5.2	10	63
124	Next	5.2	10	64
125	Next	5.2	10	65
126	Next	5.2	10	66
127	Next	5.2	10	67
128	Next	5.2	10	68
129	Next	5.2	10	69
130	Next	5.2	10	70
131	Next	5.2	10	71
132	Next	5.2	10	72
133	Next	5.2	10	73
134	Next	5.2	10	74
135	Next	5.2	10	75

