Subject: MCR-10033, Add VT102_132C_78L and VT102_132C_50L TTF entries

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Proposed Changes

This MCR addresses ticket http://multics-trac.swenson.org/ticket/50, which proposes the addition of TTF entries for a VT102 with greater than 24 rows. The existing TTF entries for VT102 include those for 80 columns and 132 columns, but the screen height is limited to 24.

Various recent Multicians have defined VT102_132C_50L and VT102_132C_78L entries for their local systems, and SVE and GHM have both added corresponding entries to their TTTs (compiled TTFs).

This MCR proposes the following additional definitions for the TTF:

```
terminal_type: VT102_132C_50L like VT102_132C;
 modes: default,ll132,pl48,can_type=replace,hndlquit,scroll,fulldpx,echoplex,crecho,lfecho,tabs,^tabecho;
 video_info:
 screen_line_length: 131;
 screen_height:      49;
 abs_pos:           ESC "[" (decimal LINE) ";" (decimal COLUMN) H, pad 1 ms;
 clear_screen:      ESC "[2J" ESC "[H", pad 75 ms;
 clear_to_eos:      ESC "[J", pad 75 ms;
 home:              ESC "[H", pad 1 ms;
 clear_to_eol:      ESC "[K", pad 3 ms;
 insert_chars:      ESC "[4h", pad 1 ms;
 end_insert_chars:  ESC "[4l", pad 1 ms;
 delete_chars:      ESC "[P", pad 1 ms;
 insert_lines:      ESC "[L", pad 100 ms;
 delete_lines:      ESC "[M", pad 100 ms;
 cursor_left:       ESC "[D", pad 1 ms;
 cursor_down:       ESC "[B", pad 1 ms;
 cursor_right:      ESC "[C", pad 1 ms;
 cursor_up:         ESC "[A", pad 1 ms;
```

and:

```
terminal_type: VT102_132C_78L like VT102_132C;
 modes: default,ll132,pl76,can_type=replace,hndlquit,scroll,fulldpx,echoplex,crecho,lfecho,tabs,^tabecho;
 video_info:
 screen_line_length: 131;
 screen_height:      77;
 abs_pos:           ESC "[" (decimal LINE) ";" (decimal COLUMN) H, pad 1 ms;
 clear_screen:      ESC "[2J" ESC "[H", pad 54 ms;
 clear_to_eos:      ESC "[J", pad 54 ms;
 home:              ESC "[H", pad 1 ms;
 clear_to_eol:      ESC "[K", pad 2 ms;
 insert_chars:      ESC "[4h", pad 1 ms;
 end_insert_chars:  ESC "[4l", pad 1 ms;
 delete_chars:      ESC "[P", pad 1 ms;
 insert_lines:      ESC "[L", pad 100 ms;
 delete_lines:      ESC "[M", pad 100 ms;
 cursor_left:       ESC "[D", pad 1 ms;
```

```
cursor_down:        ESC "[B", pad 1 ms;
cursor_right:       ESC "[C", pad 1 ms;
cursor_up:          ESC "[A", pad 1 ms;
```

These definitions differ a little from those provided by various Multics community members over the last several months. Specifically, the values of "pl" (page length) for non-video system configuration, and the values of "screen_line_length" and "screen_height" for video system configuration.   The values I've chosen, above, conform to what I believe is the convention for the other TTF entries. Namely, that the page length (non-video) is 2 less than the actual screen height. I don't really know why this was chosen, but this seems to be used in many, if not all, of the other TTF definitions. This allows the EOP from the last scroll to remain visible on the screen as well as the EOP of the current page.   This must have been chosen to give developers peace of mind that nothing important scrolled off the screen.   If you look at the 25-row terminal definitions in the standard TTF, you'll see that the page length is 23 − or "pl23".

For the video system screen line length and screen height, the convention appears to be that the screen line length is 1 less than the actual line length. Thus, for 80 column displays, the screen line length is 79. For the screen height, the convention appears to be that this value is 1 less than the actual screen height. Thus, for 25 row displays, this value would be 24.

Consequently, in the definition for VT102_132C_50L, I've chosen 48, 131, and 49 for the non-video page length, video screen line length, and video screen height, respectively.   For the VT102_132C_78L, I've chosen 76, 131, and 77 for the non-video page length, video line length, and video screen height.

The only segments affected by this change are >tools>TTF.ttf and >ldd>tools>o>TTF.ttf.   A new system install (cold boot) results in the >udd>sa>a>TTF.ttf copy of this file, as well as the compiled version of this file, >udd>sa>a>TTF.ttf.

Documentation

The release notes for the Multics release should include:

• This release adds two new terminal types: VT102_132C_50L and VT102_132C_78L. These are variants of the VT102_132C terminal type, but rather than supporting only 25 line terminals, these new types support 50 and 78 line terminals.

• System administrators who are upgrading existing systems should compare their TTF.ttf segment (in >udd>sa>a) with the new one in >tools>TTF.ttf, and merge in the new terminal types, if desired.

Version History

Date	Revision	Author	Comment
2017-02-19	0.1	Eric Swenson	Initial revision