GR33U2 Software Revision RMS1700-01-D — Release Notes

1) In the previous revision of the software there were 4 different "grid styles" supported. In reality, the grid pattern itself was the same for all 4 styles, and only the *labels* used to annotate the scale varied from one style to the other. These labels were factory pre-programmed as per the original requirements of Hydro Quebec, and could not be modified by the user — the user could only select one of the four (fixed) sets available by choosing the appropriate *grid style* from the Grids menu.

In revision RMS1700-01-D the user has been given the flexibility to modify both, the labels used to annotate the grid pattern, are the positions were these labels are placed. The approach taken is described below.

There are now only 2 *grid styles* available, but unlike in the previous revision, the actual grid pattern does differ from one style to the other:

- Grid Style #0 — Intended for non-overlapping traces. The pattern is identical to the one used (for all 4 grid styles) in the previous revision. [Two separate sections, each 140-mm wide, with 4 major divisions (35 mm), and 10 minor divisions (3.5 mm) to each major division.]

- Grid Style #1 — Intended for overlapping traces. [A single section, 280-mm wide, with 28 major divisions (10 mm), and 5 minor divisions (2 mm) to each major division.]

In each *set-up table*, a collection of parameters referred to as *Scaling Labels and Positions (SLP)*, defines the annotation for the background grid pattern. *SLPs* consist of ten label/position pairs, where each label is an 8-character string, and each position an integer defining the "column" where the label is to be printed.

Labels and positions in *SLPs* are programmable (only) via (ASCII) commands through the terminal interface. Commands are as follows:
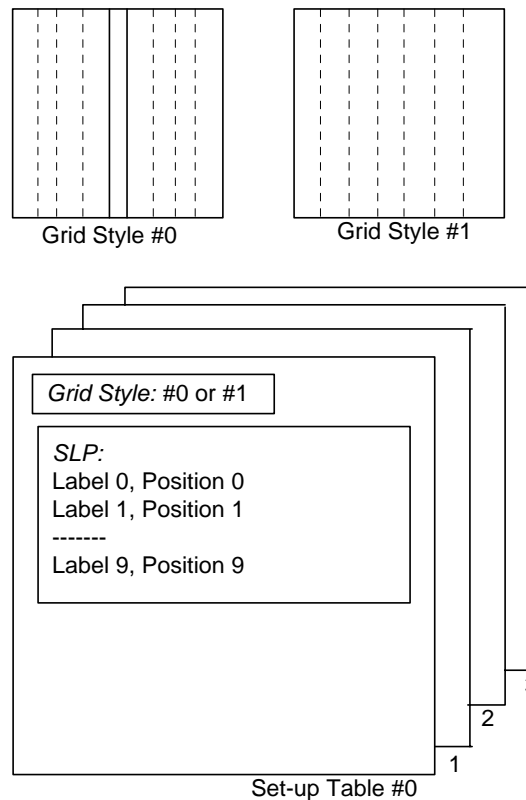
Gn=xxxxxxxx   Set the label for the *n*-th *SLP* (in the current set-up table) to the 8-character argument '*x*'.

Pn=mmm   Set the position for the *n*-th *SLP* (in the current set-up table) to the 3-digit argument '*m*'. Column number *m* may take values from 001 (left margin) to 144 (right margin).

Default settings of *SLPs* are factory pre-programmed so that the configuration of each of the four <u>*Set-Up Tables*</u> available matches the original requirements of Hydro Quebec (i.e., the four *grid styles* of the previous revision). Namely, we have:

Set-Up Table #0:   Ch. #1 — 100, 110, 120, 130, 140 VAC
                      Ch. #2 — 100, 110, 120, 130, 140 VAC

Set-Up Table #1:   Ch. #1 — 11.50, 12.65, 13.80, 14.95, 16.10 KV
                      Ch. #2 — 55.0, 57.50, 60.00, 62.50, 65.00 HZ

Set-Up Table #2:   Ch. #1 — 12.0, 13.2, 14.4, 15.6, 16.8 KV
                      Ch. #2 — 55.0, 57.50, 60.00, 62.50, 65.00 HZ

Set-Up Table #3:   Ch. #1 — 200, 210, 220, 230, 240 VAC
                      Ch. #2 — 200, 210, 220, 230, 240 VAC

The figure below illustrates the organization discussed.

Grid Style #0   Grid Style #1

Grid Style: #0 or #1

SLP:
Label 0, Position 0
Label 1, Position 1

Label 9, Position 9

Set-up Table #0

2)   When operating with Grid Style #0, *signal identification labels* are printed in the *annotation channel* area corresponding to each trace (i.e., exactly as done in the previous revision). With Grid Style #1, the labels "follow" the trace (printed immediately next to it), to avoid confusion with the overlapping traces.

3)   A command has been added to the terminal interface to allow programming of the *signal identification labels*. The syntax is as follows:

I=XXXXYYYY   Set Ch.#1 signal ident. label to 4-character argument 'X'.
                     Set Ch.#2 signal ident. label to 4-character argument 'Y'.

4)   The range for *channel sensitivity* has been extended:

from: 100 mV/cm → 10 V/cm
          (100 mV/in → 10 V/in)

to: 12.21 mV/cm → 10 V/cm
          (31.01 mV/in → 10 V/in)