



New Features

CID1500 vrs 2.31g

FSK Based Caller ID Simulator Software

1) Scripting Language Enhancements

New Command: CHANGEBIT

This new command allows a script program to modify any bit contained in the FSK data stream. Any bit within the Caller ID transmission can be set to a zero (space), one (mark), or inverted from its current setting. Applications for this command include testing immunity to missing checksum stop bits as per the TIA/EIA-716 standard.

The syntax for this command is similar in nature to the existing CHANGEBYTE command, and is as follows:

Syntax: *CHANGEBIT (segment) # (bit position) (value)*

Where: (segment) is one of the following:

Start_Burst
Preamble
Mark
Data
Mark_Out
End_Burst

(bit position) is the bit location from 1 to the number of bits in the segment.

(value) is one of the following

0 set bit to zero
1 set bit to one
toggle invert the current bit value

Scripting variables can be used for both the bit position and value fields. If variables are used, they must be numeric and not string variables. Also, variables for the value field must evaluate to either the number 0 or 1, otherwise an error will be generated. If the bit position value is greater than the maximum number of bits in a segment, a warning is issued at runtime.

At times, it may be more convenient to specify the target bit with respect to the end of the segment. The following modification of the CHANGEBIT command can accomplish this.



Syntax: *CHANGEBIT (segment) FromEnd (bit position) (value)*

By using "FromEnd" instead of "#", the bit position is taken from the end of the segment. For example, a bit position of 1 is the last bit, while 2 is the second to last bit, and so on.

Using the CHANGEBIT command will flag the segment modified as "Altered". As such, a yellow "A" is displayed in the programs status bar. This serves as a reminder that data layer modifications have been made.

Due to the hierarchical structure used to display and format the Caller ID data, any changes to the operating standard, message type, and message contents will cause a recalculation of the data segment and nullify changes made. Likewise, changing from Type I (on-hook) to Type II (off-hook) transmission modes resets the preamble and mark segments.

Modified Command: DO

The DO script command can now connect and disconnect the TSPC's telephone interface DC feed and AC termination circuitry. Disconnecting the DC feed and AC termination will completely isolate the tip and ring leads from any circuitry contained in the TSPC. The syntax for this operation is as follows:

Syntax: *DO TipRing (action)*

Where: (action) can be either:
 Connect
 Disconnect

Modified Command: LOG

Printing the data log now supports optional titles as well as specifying text for the footer on each page. These options can be set by a script program using the LOG command with the following syntax:

Syntax: *LOG Printing (aspect) (value)*

Where: (aspect) can be either:
 Title
 Footer

(value) can be either:
 [NONE]
 [DEFAULT]
 "user specified text", or script variable

Printing the data log can include a title on each page that is either the data log file name, or any user specified text. If [NONE] is used as the value field then no title is printed, while [DEFAULT] will print the file name of the data log. As an alternative, a custom title is specified by using a text string or script variable in the value field.

A footer is always printed on each page, showing the page number in the bottom right corner. However, by using the "Footer" aspect, the left side text in the footer can be



either blank by specifying [NONE], the system date and time by specifying [DEFAULT], or custom text by specifying a text string or script variable.

Modified Command: INPUT

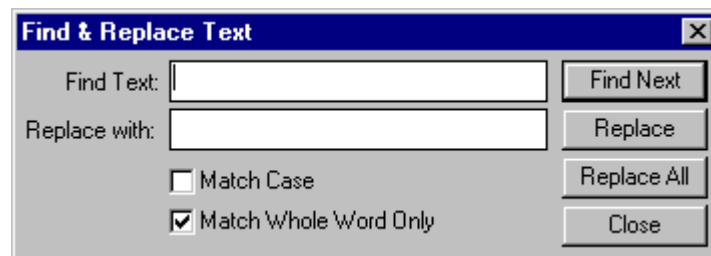
The INPUT command, which is used to query the user for data in various forms, has been modified in its use of the (min) and (max) fields. These two fields specify numeric limits when requesting numeric data, or the minimum and maximum number of characters when requesting text data. Previously, script variables could not be used to specified the min and max fields. However, this has been changed in order to allow limits that can be altered during the script program's execution. The syntax for the INPUT command is:

Syntax: INPUT (style) (variable name) "caption" (min) (max)

2) Script Editor Changes

Find & Replace Text

Two new menu commands allow for searching and replacing text within the script program editing window. Anytime the cursor is inside the editing area, the [EDIT] [FIND TEXT] and [EDIT] [REPLACE TEXT] menu commands are enabled. Both commands will display a window that is similar to the following.



Any text that is highlighted in the script editing window is automatically copied to the "Find Text" field. Clicking the mouse on the Find Next button will start a search for matching text beginning from the cursor's position in the editing window. If a match is found, the text is highlighted in the editing window. Once the text search reaches the end of the editing window, it will continue from the beginning automatically.

Clicking the mouse on the Replace button will over write any highlighted text in the editing window with whatever text is present in the "Replace With" field. The Replace feature is only available if the [EDIT] [REPLACE TEXT] command was selected.

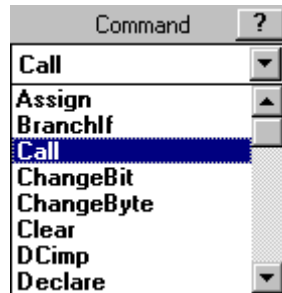
The Replace All button will automatically start from the beginning of the script editing window and search for matching text. If a match is found, it replaces it with the text in the "Replace With" field. This process is continued until the end of the editing window is reached.



Normally, the text search ignores differences between lower case and upper case letters. By selecting the "Match Case" check box, the search will only find text if the case of each letter matches. The "Match Whole Word Only" check box, if enabled, ignores word fragments and only finds text that matches as complete words. For the purposes of the search, words may contain letters, numbers, and the underscore character.

Alphabetic Command Listing

In previous program versions, the script language commands were listed in order of most frequent use. However, as the number of commands has steadily increased, it became difficult to find the command in the list box. Starting with this program version, the commands are listed in alphabetical order.



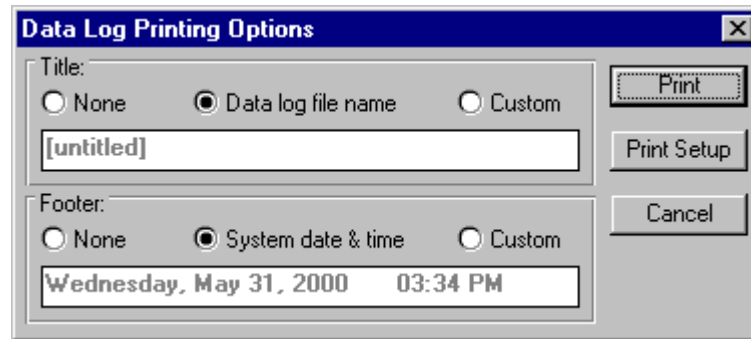
3) DC Line Impairments

The Type I (on-hook) DC line impairments can be enabled for both the "Send Data After 1st Ring" and the "No Ringing" signaling type. Previously, the Type I impairments were only available for the "Send Data After 1st Ring" signaling type. This change now allows a line reversal or OSI impairment before the data is sent. Note that the "No Ringing" signaling type is only applicable to the "Bellcore" Caller ID standard setting.

An additional change has increased the maximum duration and delay intervals for the DC line impairments to 10,000 msec.

4) Printing Options

The title and footer text for the data log printing can now be specified. Selecting the [FILE] [PRINT DATA LOG] menu command displays a window similar to that shown below. Normally, the file name and system date & time are used for the printed title and footer text respectively. However, this can be changed to any user defined text, or to disable the printing of the title and footer text.



In addition, a script program can change the printing options via the LOG command. Any changes made to the settings are stored within a configuration file.

When printing the contents of a script program, either all the script program modules or only the current module can be printed. After selecting the [FILE] [PRINT SCRIPT PROGRAM] menu command, the user is queried whether all the modules are to be printed, or just the current one.

5) Other Program Changes

Removal of Single Cycle Ring Delay

A one cycle ring delay has been removed. This delay affected the timing of the ringing signal, as the ring generator incurred a one cycle delay before applying the high voltage signal to the tip and ring leads. At low ringing frequencies this delay could significantly effect the total ringing duration for short rings. As this delay has been eliminated, the ringing timing accuracy is greatly improved.

Removal of Forced Checksum Calculation on Configuration File Load

Starting a Caller ID transmission after loading a configuration file had always forced a recalculation of the message checksum. This was performed to ensure that the data sent to the CPE always matched the contents of the "Main Settings" and "CID Packet Format" windows. However, configuration files that contained manually altered checksum data or altered data segment bits would be recalculated once the Caller ID transmission started. Starting with this program version, the automatic recalculation is suppressed. As such, when loading a configuration file, which contains altered data, the Caller ID data sent may not match the data in the "Main Settings" or "CID Packet Format" windows. However, if this occurs, a highlighted "A" in the status bar is displayed in the status bar.