

WiM-mode DSP Version 3.114 (28.2.12/17:03)

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1. New internal parameter to control the format of speed's report

Parameter address: 315.

Parameter value: How many digits after the decimal point (0 (default), 1 or 2).

Effect on: Response when 'Get results immediately' = On, 'r', '#nnnnr', 'L'.

Note: In previous versions speed's format was fixed: 2 digits after the decimal point.

2. New 'Speed Correction Factor' parameter

'Speed Correction Factor' = 1.00 gives the theoretical speed (according to actual time & scale width).

If real speed is different, the user should change the 'Speed Correction Factor' accordingly.

Accessibility:

* By LCIC-WIM-SETTINGS application V2.24 and up:

A new parameter in the 'Parameters' / 'Physical' frame (on the up-left side).

* By a terminal or a user application: Refer to address 316.

If you change the parameter inside the WiM mode, exit the mode and re-enter it again (by the 'x' and 'w' commands) in order to validate the new value.

Default: 1.00.

Range: 0.50-2.00.

3. New Locked/Unlocked mechanism

(Both in general mode and in WiM mode)

Introduction

There is a new 'board locking' option.

Use the new LCIC-WIM-PARAM-LOCK application in order to **lock** or **unlock** a board.

Note: Using the 'board locking' option requires **new versions** of IMS applications:

LCIC-WIM-CALIBRATION: V2.21 and up.

LCIC-WIM-SETTINGS: V2.25 and up.

When the board is locked:

* Using IMS applications LCIC-WIM-CALIBRATION & LCIC-WIM-SETTINGS:

Changes are allowed only if the user supplies the password.

You can supply the password either at application start or at any stage by typing <Ctrl>+P.

Note: In order to avoid disorder, user's idle time is limited by a 'Password Timeout', after which he is requested to reenter the password in order to resume his authorization. The size of this 'Password Timeout' is user-programmable by the file "PasswordTimeout.txt" that is located in application folder. You may manually edit this file and replace the default 1000 seconds value in the 'LockPasswordTimeout,sec.: 1000' string by any integer value between 30 to 5000.

* Using user's terminal or application:

* New command '{' (responses '{' + C/R) permits temporarily (10 sec.) to change parameters (by the command 'W').

* New command '}' (responses '}' + C/R) terminates the above permission earlier (that is, before 10 sec.).

Old Versions of IMS Applications

As specified in the introduction, using the 'board locking' option requires **new versions** of IMS applications. However, if, by mistake, a user still uses old versions of IMS applications (LCIC-WIM-CALIBRATION and/or LCIC-WIM-SETTINGS), then:

* When the board is unlocked: The applications will still work properly (the same as before).

* When the board is locked and the user tries to change parameter(s):

The old IMS applications do not 'know' the 'locking board' option, so they **won't block** the user, and will send his illegal request to the board. The board, in turn, will recognize the illegal request, so it will supply an indication that some severe disorder occurred by hanging up and displaying cyclically: "Err PWrd" and "do rESet" (which stand for "Error Password" and "Do Reset"). The board will stay in this state until it is manually reset, in order to draw user's attention that something is wrong.

The same procedure will take place if – while the board is locked – the user tries to change any parameter by the 'W' command using another application (such as Termite) without preceding it by the '{' command.

4. Automatic refresh of the serial communication mechanism

If
(last 'such and such' successive seconds there was no communication input from the PC)
and
(last communication input from the PC was **not** via the USB port)
- then the board refreshes the serial communication mechanism automatically.

'such and such' is user programmable by the new 'SCI Refresh Rate' parameter.

Accessibility:

- * By LCIC-WIM-SETTINGS application V2.24 and up:
In the 'Communication' frame, click on the 'Baud Rate' sub-frame to get the 'SCI Refresh Rate' sub-frame.
 - * By a terminal or a user application: Refer to address 321.
If you change the parameter, restart the board in order to validate the new value.
- Parameter values:
- parameter = 0: feature disabled.
- 1 <= parameter <= 100000: 'such and such' = parameter (note that the units are seconds)
- default: parameter = 100, that is, 'such and such' = 100 (seconds) too.

Notes:

1. The feature works both in general mode and in WiM-mode.
 2. Except the option described in next paragraph, the parameter should be an integer.
 3. Optionally, you may get an **indication** on the LED display when the 'refresh' works.
This option is good only for testing, as during the indication time (one second) the board is idle.
Therefore, it should be used only temporarily and by an advanced user – it is **not** available via the LCIC-WIM-SETTINGS application.
- To activate the option:
- * Use a terminal or a user application and refer to address 321.
 - * Set the parameter to a value, more than 6, plus 0.5. for example, 10.5.
(The '.5' is just a **mark** that you want to get the indication; the effective refresh rate will be 10 seconds, **not** 10.5.)
 - * Restart the board.
 - * Connect to board's serial port by an RS232 terminal but send nothing to the board.
 - * Each 10 sec. you'll get a 'refresh' indication: 'rEF-SCI' (**ref**reshing the **s**erial **c**ommunications **i**nterface), on board's LED display, during one second.
 - * If (for example) 6 seconds after a 'rEF-SCI' indication you send some command, say 'V', the next refresh will take place only 10 (**not 4**) seconds later. In other words, a refresh occurs only after there is a 10 successive seconds pause in communication input from the PC; otherwise, there will be no refresh.