GE Grid Solutions **MultiSync 100 GPS Clock Software**

**Revision v4.1.0.16**

**GE Publication Number: GER-4768**

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Overview

**Summary**

GE Multilin regularly introduces software updates to address enhancements in certain functional areas. This software is applicable to the MultiSync 100 GPS Clock, and the associated Configuration Tool:

### Released August 19th, 2016

Release details

The following notes describe the software changes and their impact. A revision category letter is placed to the left of the description. Refer to the Appendix at the end of this document for a description of the categories displayed.

## MultiSync 100 GPS Clock Software

**N** Added Offline Mode capabilities. lt is now possible to edit and save a configuration

file without connecting to a clock. The saved configuration can be loaded and stored to a clock at a

later date.

**N** Added GPS Commissioning. lt is now possible to view and log satellite statistics to

determine the suitability of the antenna position.

**N** Added encryption and password protection to saved configurations.

**N** Reformatted configuration printout to improve readability.

**N** Configuration tool now uses background communication with clock to improve the

responsiveness of the user interface.

**N** Increased range of options for PTP message send rates. The announce interval can now be

set from 1/8 second to 16 seconds, instead of 1 second to 8 seconds. The sync interval can now be

set from 1/128 second to 16 seconds, instead of 1/2 second to 2 seconds.

**N** The change list viewer now supports grouping and sorting to improve readability. When a

configuration is loaded from a file, a list of configuration changes appears for confirmation. The

change list window now displays old and new values in columns and groups related settings to

improve readability.

**N** Added a 'Restart Unit' button, which allows the clock to be remotely reinitiated in a

manner similar to removing and reapplying power.

**N** Configuration tool now shows the current UTC ->TAl offset on the time tab.

**N** Configuration tool now shows extended version information, if that information is

available from the clock.

**N** The editor window title now includes the clock model number if the clock designation is

not set.

**E** Configuration tool now forces new password to be different from current password.

**E**  Added a warning message when two passwords are used and the privacy password

has changed from none to AES or DES. The new password is ‘password’.

**E**  Added warning message for incorrect password changes.

**E**  When leaving insecure mode a dialog box now reminds the user of the default login

details.

**E**  The user "add" window now contains a reminder of the default password.

**E**  Supervisor mode change user password is now accepted.

**E**  Changing user authentication or privacy type and password in one submission is now supported.

**E**  Added Delete group button.

**E**  Added support for slave PTP Telecom profile.

**E**  Added popup help for NTP tab.

**E**  Changed notification labels- Historic changed to Historic SNMPVl and Syslog (old) to Historic

Syslog.

**E**  New DCF77 tab created to match the IRIG-B tabs. This is needed because the "Use

UTC time" is a global DCF77 setting not output specific. The IRIG-B tab labels have been changed to

remove the word "Stream" in order to make room.

**E**  Active alarms are now visible on Clock tab when Notification access is disabled.

**E**  Pulse port offset and duration are now limited to valid combinations.

**E**  A pop-up message dialog now appears when manually adding an lP address to

the configuration tool to confirm that it is working, and a pop-up dialog also appears if the

configuration tool cannot contact a clock at the given address.

**E**  The configuration tool now gives clearer warnings when test mode is in use. On the

Clock tab, the configuration tool now shows a "Sync Forced" alarm when the "Sync relay is always

on" setting is selected, and a "Test Source In Use" message when the test source is active.

**E**  The configuration tool now displays the current TAl -> UTC offset in Offline mode,

based on the current date and time and an internal table of leap second additions, and will also

display the date of the last leap second addition.

**E**  Saved configuration files now include the TAl -> UTC offset used by the clock, the

time at the clock, and the time at the PC. This information is for reference only and is shown but not

loaded when the configuration file is loaded by the configuration tool.

**E**  GPS Module Version is now shown under System Information on the Clock tab.

**E**  A confirmation dialog is now shown when refreshing the configuration window will

cause unsaved changes to be lost. Previously, no warning was given.

**E**  Both passwords are now set in one dialog when changing passwords on a clock with

two-password authentication enabled.

**E**  Unnecessary constraint checks performed when entering test mode have been

removed.

**C** Fixed a bug that could cause an error when a clock is unexpectedly removed from the

network.

**C** Time display on Clock tab now visible when users have no access to the Test access control

group.

**C** SNMP public and private access selection now point to correct groups.

**C** The Telecom profile quick set button now correctly resets the TLV Config settings.

Previously, the TLV Config settings were not reset to the default values when the Telecom profile

was selected.

**C** The PTP announce interval setting is now shown when the clock is a Forced Slave. The

configured announce interval determines the foreign master timeout, which determines how often a

slave clock must see announce messages in order to recognize a master as valid. Previously, the

announce interval setting was not shown when "Forced Slave" was set.

**C** Improved stability of configuration tool when running on Windows XP and on systems with

low memory.

**C** When the lP address of a clock is changed, the lP address shown in the Discovery window

now updates to the new address automatically. Previously, the Discovery window would not

update until the clock is rediscovered.

**C** GPS location and satellite data on the GPS tab is now correctly cleared when the GPS

receiver is reset using the Reset GPS button on the GPS tab.

**C** A warning dialog is now displayed if the logged in user has no access to any settings as set

on the Access Control tab. Previously, the user would be shown a blank configuration window in this

case.

**C** The 'Store configuration to clock' button is now correctly disabled when the configuration

has not been changed. Previously, the button was left enabled if an output setting was changed,

and then set back to the previous setting.

**C** Leading and trailing white space is no longer trimmed from login usernames and

passwords. Previously, this could cause a user to be unable to log in if they were to set a password

containing leading or trailing white space.

**C** When changing a user password, the name of the user whose password is being changed is

now displayed instead of the currently logged in user.

**C** Supervisor mode password change now works correctly.

**C** Two-password DES now uses Priv password instead of Auth for encryption.

Appendix

## Change categories

This document uses the following categories to classify the changes.

**Table 1: Revision categories**

|  |  |  |
| --- | --- | --- |
| **Code** | **Category** | **Comments** |
| **N** | New feature | A separate feature added to the relay. Changes to existing features even if they significantly expand the functionality are not in this category |
| **G** | Change | A neutral change that does not bring any new value and is not correcting any known problem |
| **E** | Enhancement | Modification of an existing feature bringing extra value to the application |
| **D** | Changed, incomplete or false faceplate indications | Changes to, or problems with text messages, LEDs and user pushbuttons |
| **R** | Changed, incomplete or false relay records | Changes to, or problems with relay records (oscillography, demand, fault reports, etc.) |
| **C** | Protocols and communications | Changes to, or problems with protocols or communication features |
| **M** | Metering | Metering out of specification or other metering problems |
| **P** | Protection out of specification | Protection operates correctly but does not meet published specifications (example: delayed trip) |
| **U** | Unavailability of protection | Protection not available in a self-demonstrating way so that corrective actions could be taken immediately |
| **H** | Hidden failure to trip | Protection may not operate when it should |
| **F** | False trip | Protection may operate when it should not |
| **B** | Unexpected restart | Relay restarts unexpectedly |

The revision category letter is placed to the left of the change description.

## GE Multilin technical support

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