# AE TECHRON®

# WHAT'S NEW

## in 3110 Standards Waveform Generator Software
### Version 1.2

## USABILITY IMPROVEMENTS

**Faster, more responsive user interface:** Create and position wave and control segments quickly and easily with the more responsive SWG user interface.

**Easy, three-step system calibration process:** We completely reworked the system calibration process to make it easier and much more intuitive. Here's how it works:

1. The default gain is preset to 20, although this can be changed easily by typing in a new number. A default test signal of 1 Vp is also preset, but can be changed, if desired. Connect your oscilloscope to the DUT, and then press the Run Calibration Test button to begin the Calibration test.
2. Note the measured output voltage and DC offset shown on your oscilloscope. Enter those results in the Measured Output and Measured DC Offset input boxes. The SWG software will automatically calculate and display the required Gain and DC Offset adjustments.
3. Press the Save button to save the adjustments, and you're done.



**Input Range Indicators:** In addition to telling you if you have entered a value that is out of range, a pop-up tooltip will indicate the acceptable range for each entry. The values are intelligent and vary based on your system gain and offset settings, as well as the selected units for the entry.

Limits are provided for Amplitude, Frequency, Offset, Phase Offset and Duration
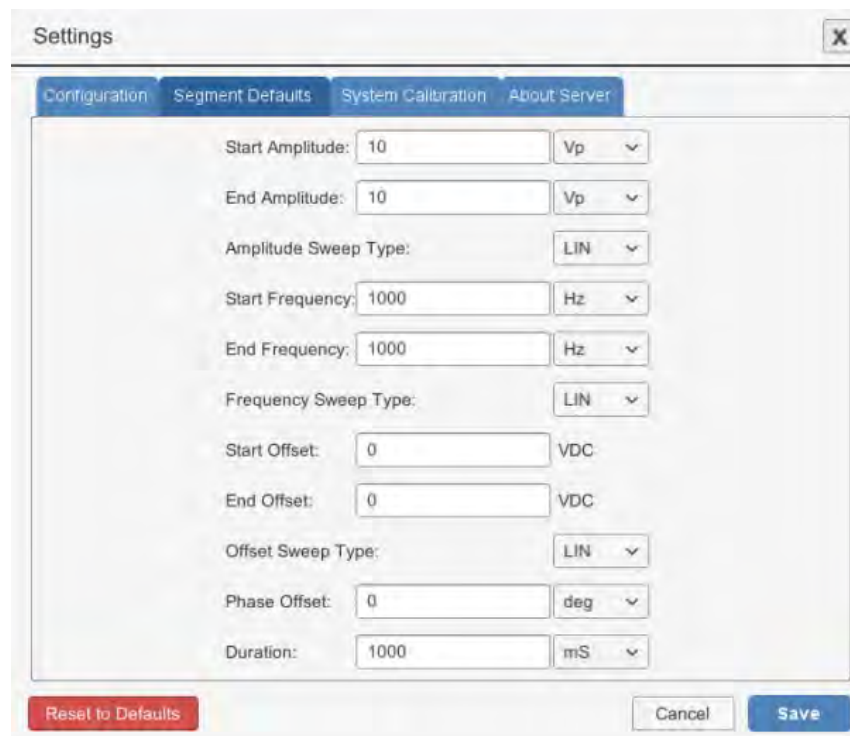


## PRODUCTIVITY IMPROVEMENTS

**Create Standards' Tests Offline at Multiple Locations:** Our new Windows Remote Client software can be used to edit or create SWG test files without connecting to a 3110 controller. This means several assistants can be creating test files on remote Windows computers (WIN 7, 8, and 9 supported), while the 3110 controller is free to be used for device evaluation and testing. When the new test files have been completed, you can connect directly to the 3110 controller using the Remote Client software, or transfer the SWG files to the 3110 controller for direct testing.

**Custom Segment-Default Settings:** The segment-default settings control the properties that will be used when a waveform segment is added to the active test window Now you can adjust these defaults to create new tests more quickly and with less effort. For example, when creating Automotive tests, the default DC Offset could be set to 13.5V, or the default Frequency can be set to 800 Hz when creating Aviation tests.

**Easy-Access Clear Template Button:** Now, in addition to the Clear Template button found in the Files window, a Clear Template button has been added to the main window to make this action easier to perform.

## IMPROVED TOOLSET

**GPIO Trigger and Output:** For users wanting to incorporate the 3110 into larger automated systems, version 1.2 adds GPIO Trigger and Output functions. GPIO Trigger allows you to release a trigger in an SWG test file by using a simple logic signal. GPIO Output allows you to insert a GPIO segment in a test sequence that can send a logic signal to other system equipment.

When used together, these GPIO functions can be used to notify another system that a certain point in the test has been reached, pause and listen for a return signal from another system that functional testing has finished or a condition has been met, and then resume the test sequence. This can be done via simple contact closures using the three dedicated GPIO pins provided on the 3110 controller.
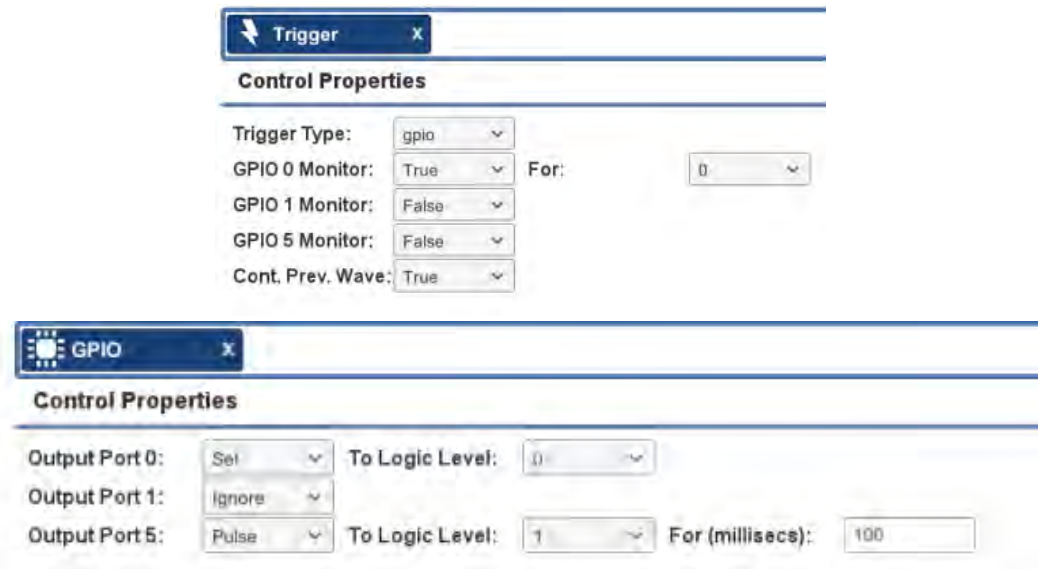


**Loop Monitor:** The Loop Monitor allows you to track the status of the fixed and variable loop in any test sequence. When enabled, the Loop Monitor window will automatically open into the active window when a test containing fixed or variable loops is started. Drag the Loop Monitor window to reposition it within the active window, if desired.
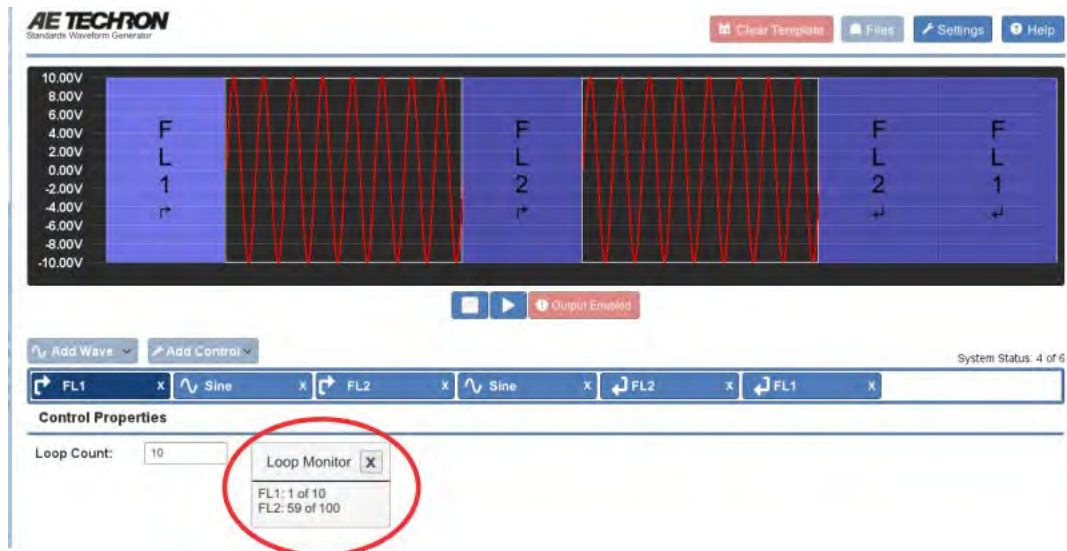
**Output Enabled/Disabled Control:** This button has been added next to the Run and Stop controls in the main test window. It allows the user to disable the 3110 waveform output and can be useful when developing new test sequences because it allows the sequence to be run and external processes (like GPIO triggers and outputs) to be verified without actually generating a test signal output.
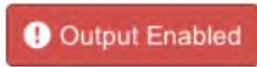


**Enable/Disable Segment Control:** This control allows individual segments to be disabled, which can be useful when testing new test sequences. Segments with a long duration or ones that have already been verified can be temporarily disabled to allow faster test creation.



**Segment-Level Calibration:** Segments with very tight tolerances or with a calibration routine that requires levels set based on the power required to drive a non-linear device (such as MIL STD 461 or CS 101) can benefit from the new segment-level calibration function. This function allows voltage level adjustments for an individual segment within the test sequence.