Proteus Operating System update 2.7: Color swapping

Revision date: March 27, 2008

This new update adds the ability to swap the red and green color channels for any Proteus session, which will expand the range of visual effects available with the factory sessions, as well as demonstrating the differences in "feeling" associated with the use of red and green colored light.

To install it, transfer the file PROTEUSCODE27.pts into your Proteus Editor directory, then:

1. Connect your Proteus is to your PC and the proper COM port selected; set it to dL mode.
2. Open Proteus Editor
3. Select Update Code
4. Select PROTEUSCODE27.pts and click the Upload Code button.

The dL display will flicker if the transfer is taking place; if it isn't doing so, you may need to change to another COM port.

To use it, just press the top and bottom buttons during a session in the following modes:

Uxx
Pxx
USr
PC

Proteus Operating System bug fix 2.7: Internal Volume Control

A bug in OS 2.6 has been fixed. In OS 2.7 the internal sounds volume can again be adjusted as in 2.5. See details below.

(Details of Other changes since Editor 2.2 and OS 2.4)

Proteus Editor and OS, version 2.5.1 (beta)

Revision date: October 10, 2006

New features: firmware (OS)

1) The volume of the internal sounds can now be adjusted independently from external sounds in the Pxx and Uxx modes.

This setting also works in the USr and PC modes but has to be set in the Pxx or Uxx mode.
When the Proteus is turned on, the volume setting for the internal sounds is set to its maximum value (255).

Usage

While a session is running, **press the middle and bottom buttons at the same time and hold**. This will cause the internal volume to decrease then go off over approximately 5 seconds. It will hold at the off (0) level for a second then cycle back up to full volume (255)
This setting is retained as long as the unit is turned on. The overall loudness of the mixed internal and external sound is still affected by the volume control

If you try and adjust the volume during the initial soft-on the volume will only go up, waiting for the soft-on to finish.

If you want to adjust the volume right away it's best to push the start/stop button again to override the soft-on sequence.
After this is over, pressing the two lower buttons will cause the volume to start declining.
When the volume reaches 0 it will hold that value for one second then start increasing.
When the volume reaches 255 it will hold that value for one second then start deceasing.
If you release the keys at some point between 0 and 255 the direction of the volume will reverse the next time the volume keys are pressed.

2) The on time for the lights can be shortened in five steps.

With lights at full brightness the duty cycle (on time) is normally about 40%. The new firmware will allow on times of about 40, 20, 10, 5 and 0%

Usage

While a session is running, press the top and middle buttons at the same time then release.
Each two-button press decreases "on time" of lights until the lights go off. The next button press restores the on time to 40%. This works in Pxx, Uxx, USr and PC modes.
This feature allows you to emit short light pulses with longer "off" times between them.

3) Audio Strobe mode can remain on indefinitely.

Usage

In "AS " mode momentarily press the top (Start/Stop) button. The display toggles between "AS " and "AS_".

- The "AS_" display indicates that the unit will stay on as long as power is available.
- The "AS " display indicates that the unit will turn off after 80 minutes (assuming no buttons are pressed).

4) You can turn off the display in the Audio Strobe mode.

- Use this if you can hear any low level clicking or buzzing, which can be generated by the LED display.

Usage

In "AS " mode momentarily press the bottom (Select) button. This will toggle the display on and off.

5) The accuracy of very low frequency flash rates is improved with a 24 bit phase accumulator.

This added accuracy will allow very low frequencies to be selected and used.

New Features: Proteus Editor 2.5

1) You can now reload the default "simple" sessions.

Usage

- With the Proteus connected to the computer and set to "dL" mode, select the menu item <Utilities> <Restore Factory Sessions (Simple)>
- A window pops up asking the user to select a PTS file.
- Select PROTEUSCODE27.PTS and click "Restore" to reload the sessions, or click the "Cancel" button to cancel the operation.

2) You can reload the default sound tables.

Usage

- With the Proteus connected to the computer and in "dL" mode, select the menu item <Utilities> <Restore Factory Sound Tables>.
- A window pops up asking the user to select a PTS file.
- Select PROTEUSCODE27.PTS and click "Restore" to reload the sound tables, or click the "Cancel" button to cancel the operation.

3) The minimum flash rate for the lights has been lowered to 0.1 Hz (the old limit was 0.5 Hz).

At the very slow rate of 0.1 Hz, the on time of the lights can appear rather long (about 4 seconds, which is equal to a 40% "on" time).
Feature #2 of the Proteus firmware (see above) was implemented so the lights would flash in a more familiar way when running at low frequencies. For example, setting the "on" time to just 5% would result in an "on" time of half a second at 0.1Hz (one pulse every ten seconds).