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| Cell | **Visuals** | **Audio** |
| 1 | Shot of Alan  VIDEO: show shield with graphics example running.  TEXT ON SCREEN:  Download the manual and solution projects at:  [www.cypress.com/training/wicedwifi-101](http://www.cypress.com/training/wicedwifi-101) | Hi, I’m Alan Hawse. I am Senior Vice President of Technical Staff for Solutions and Software at Cypress Semiconductor. Let’s talk about using the U8G library to help us use the OLED display that I have on this shield. |
| 2 | TEXT ON SCREEN:  eBay search: 128x64 OLED Display | If you don’t have the shield, you can reproduce most of these exercises using a U8G compatible display of your own and wiring it to the appropriate pins. Search for “128x64 OLED Display” on eBay or Amazon to find lots of choices for only a few dollars. |
| 3 | SCREEN CAPTURE: Show project copy/update process. | First, let’s create a folder to hold the chapter 4 projects and then copy the snip project called graphics/hello to ww101/04/02\_hello. Remember that these SNIP projects are there to give you building blocks to help accelerate your own development.  Then, update the names of the files and update the make file.  Let’s also create a make target for our new project. |
| 4 | SCREEN CAPTURE: Show screenshot of 02\_hello.c | Now, open 02\_hello.c. The U8G display communicates using I2C. Specifically, it is an I2C slave using address hex 3C. On our shield, the display is connected to the WICED\_I2C\_2 pins on the chip.  You can see that an I2C structure is already set up for a device connected to WICED\_I2C\_2 with the appropriate address 0x3c  We are going to change the speed mode from I2C\_HIGH\_SPEED\_MODE to I2C\_STANDARD\_SPEED\_MODE but otherwise no changes are needed. |
| 5 | SCREEN CAPTURE: Point out various parts of the code. | Note that the API functions are provided to initialize the I2C interface which we called oled\_display and to initialize a structure called u8g.  Once that is done, we use various library functions to display the message “Hello World!” to the screen. |
| 6 | VIDEO: Show kit with message displayed on the display | Now program the project and see what it does. |
| 7 | SCREEN CAPTURE: Show project copy/update process. | A second example called snip/graphicstest shows a little bit more complex example.  Let’s copy that project to 02b\_graphicstest, and update as necessary.  Remember to change the I2C speed to I2C\_STANDARD\_SPEED\_MODE. |
| 8 | SCREEN CAPTURE: Show abbreviated programming process.  VIDEO: Show picture of graphics display on the screen. | Once that is done, program the board and check out the moving graphics display. |
| 9 | TEXT ON SCREEN:  Cypress Developers Community  community.cypress.com  Show video of email and twitter windows. | As always, you can post your comments and questions in our Wifi developer community or you are welcome to email me at alan\_hawse@cypress.com or tweet me at @askioexpert with your comments, suggestions, criticisms and questions. |