Lantronix xPico200 Software Development Kit (SDK)

SECURE BOOT

The xPico200 ships with secure boot. To use the SDK, you must first create your own private key and install it on your devices. Standard Lantronix-signed firmware will then no longer run on your devices. We provide unsigned copies of the firmware that you may sign with your own key. Find workflow and procedure details in https://docs.lantronix.com/products/xpico-200/sdk/5.4/firmware/#secure-boot.

WINDOWS

DOCUMENTATION

In this directory, open or double click on "`theDocument.bat`". From there you can follow links to the design documentation.

SAMPLE BUILD

1. View <your_install_directory> with Windows Explorer.
2. Click on msys2_shell to open a bash window.
3. Change to the desired project directory. Type "`cd /c/<your_install_directory>/custom/project/echoDemo/`".
4. Edit your definition of "SDK_VERSION" in "Makefile" which will be incorporated in the firmware version.
5. Build the project. Type "`make`".
6. See https://docs.lantronix.com/products/xpico-200/sdk/5.4/firmware/#secure-boot for instruction on how to sign your built .rom file. By convention we name it the .signed.rom file.
7. Upload the signed code into your device. From the Web Manager, go to the Device page, click "Firmware Upload". Browse to your ".rom" file in directory "`C:\<your_install_directory>\work\echoDemo`". Upload it, then click "Reboot".
8. Notice that your Line configuration now has a selection under Protocol of "Echo".
9. Select "Echo" on a Line.
10. Notice that characters sent into the Line interface are now echoed back.
11. View this example code in directory "`C:\<your_install_directory>\custom\module\line_echo`".

LINUX

DOCUMENTATION

In `<your_install_directory>/html`, find the `index.html` file. Open this file in a web browser; from there you can follow links to all of the documentation.

SAMPLE BUILD

1. Untar linux `xPico200-sdk-linux64_<version>.tar.gz` from your `<install directory>`.
   Note: `<install directory>` needs to be a new folder otherwise older files will not be removed.
2. Run `./install_environment.sh` script. Type `sudo dpkg-reconfigure dash` and select <No> to use bash.
3. Change to the desired project directory. Type "`cd <your_install_directory>/custom/project/echoDemo/`".
4. Edit your definition of "`SDK_VERSION`" in "`Makefile`" which will be incorporated in the firmware version.
5. Build the project. Type "`make`".
6. See https://docs.lantronix.com/products/xpico-200/sdk/5.4/firmware/#manufacturing-workflow for instruction on how to sign your built .rom file. By convention we name it the .signed.rom file.
7. Upload the signed code into your device. From the Web Manager, go to the Device page, click "Firmware Upgrade". Browse to your ".rom" file in directory "`<your_install_directory>/work/echoDemo`". Then click "Upload". The device will reboot automatically after completing the upgrade.
8. Notice that your Line configuration now has a selection under Protocol of "Echo".
9. Select "Echo" on a Line.
10. Notice that characters sent into the Line interface are now echoed back.
11. View this example code in directory "`<your_install_directory>/custom/module/line_echo`".

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