

AM17xx Pin Multiplexing Utility

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ABSTRACT

The AM17xx devices use a great deal of internal pin multiplexing to allow the most functionality in the smallest and lowest cost package. This software allows the pin multiplexing registers of the device to be calculated with ease, as well as showing what peripherals can be used together and what devices support the peripherals that are selected. This software is useful to anyone creating a system with AM17xx devices.

The Pin Multiplexing Utility can be downloaded from http://www.ti.com/lit/zip/SPRABA3.

1 Using the Pin Multiplexing Utility

This utility is a stand-alone executable, there is no installation process required. After you have extracted the utility, run the executable (PinSetup.exe) located in the bin directory. Once the utility is opened, there is a user interface with various sections covering the multiplexed peripherals of the AM17xx devices. Select the device and peripherals necessary to your application. Note that as some peripherals share pins, when selecting one peripheral you may disable another. This way you can determine how many different combinations of peripherals are possible on the AM17xx devices. As the peripherals are selected, the utility dynamically updates the appropriate PINMUX register values.

Once the selections have been entered, the PINMUX register values are used in the application code to properly configure the device; all the peripherals that were selected are enabled. You can save a header file with the appropriate PINMUX register values by going to File \rightarrow Save \rightarrow Header File. To save your device and peripheral selection for future use, choose File \rightarrow Save \rightarrow Pin Selections.

2 References

- AM1707 ARM Microprocessor Data Manual (SPRS637)
- AM1705 ARM Microprocessor Data Manual (SPRS657)

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