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Proteus VSM for ARM® Bundle

System Level Simulation for ARM® Variants.

Summary

Proteus Virtual System Modelling (VSM) combines mixed mode SPICE circuit simulation, animated components and microprocessor models to facilitate co-simulation of complete microcontroller based designs.The Proteus VSM Bundles include the following main software modules:

- Professional Schematic Capture module
- ProSPICE professional Simulation Engine
- All supported VSM microcotroller variants in the ARM Families.
- All of the Proteus Embedded Simulation Peripheral Libraries.
- VSM Studio IDE with automatic compiler configuration.
- Over 10,000 standard simulation models.

⚠ *Proteus VSM for ARM® Bundle products are ideal if you need to simulate more than one family of ARM micro-controllers.*

Variants

The following is a current list of supported variants in the ARM7 family:

- LPC2104, LPC2105, LPC2106.
- LPC2114, LPC2124
- LPC2131, LPC2132, LPC2134, LPC2136, LPC2138.
- LPC2101, LPC2102, LPC2103.
- ARM7TDMI and ARM7TDMI-S core models.

The following is a current list of supported variants in the ARM® Cortex™-M3 family:

- STM32F103C4, STM32F103R4, STM32F103T4, STM32F103C6
- LM3S300, LM3S301, LM3S308, LM3S310
- LM3S315, LM3S316, LM3S317, LM3S328
- ATSAM3N00A, ATSAM3N00B, ATSAM3N0A, ATSAM3N0B
- ATSAM3N0C, ATSAM3N1A, ATSAM3N1B, ATSAM3N1C
- ATSAM3N2A, ATSAM3N2B, ATSAM3N2C, ATSAM3N4A
- STM32F103R6, STM32F103T6, ATSAM3N4B, ATSAM3N4C
- LPC1311FHN33, LPC1313FHN33, LPC1313FBD48
- LPC1342FHN33, LPC1311FHN33, LPC1313FHN33
- LPC1313FBD48, LPC1342FHN33, LPC1342FBD48
- LPC1343FHN33, LPC1343FBD48

The following is a current list of supported variants in the ARM® Cortex™-M0 family:

- LPC1110FD20, LPC1111FDH20/002
- LPC1111FHN33/101, LPC1111FHN33/102
- LPC1111FHN33/103, LPC1111FHN33/201
- LPC1111FHN33/202, LPC1111FHN33/203
- LPC1112FD20/102, LPC1112FDH20/102
- LPC1112FDH28/102, LPC1112FHN24/202
- LPC1112FHN33/101, LPC1112FHN33/102
- LPC1112FHN33/103, LPC1112FHN33/201
- LPC1112FHN33/202, LPC1112FHN33/203
- LPC1113FBD48/301, LPC1113FBD48/302
- LPC1113FBD48/303, LPC1113FHN33/201
- LPC1113FHN33/202, LPC1113FHN33/203
- LPC1113FHN33/301, LPC1113FHN33/302
- LPC1113FHN33/303, LPC1114FBD48/301
- LPC1114FBD48/302, LPC1114FBD48/303
- LPC1114FBD48/323, LPC1114FBD48/333
- LPC1114FDH28/102, LPC1114FHN33/201
- LPC1114FHN33/202, LPC1114FHN33/203
- LPC1114FHN33/301, LPC1114FHN33/302
- LPC1114FHN33/303, LPC1114FHN33/333
- LPC1114FN28/102, LPC1115FBD48/303
- LPC1115FET48/303

The following is a current list of supported variants in the ARM® Cortex™-M4 family:

- STM32F401CB, STM32F401CC, STM32F401CD, STM32F401CE
- STM32F401VB, STM32F401VC, STM32F401VD, STM32F401VE
- STM32F401RB, STM32F401RC, STM32F401RD, STM32F401RE

Features

Please see individual product families for features and information on model details.

Limitations

Please see individual product families for information on model limitations of variants in that family.

Compilers

Supported Third Party Compilers

Proteus VSM models will fundamentally work with the exact same HEX file as you would program the physical device with. However, far more debugging information is available when using a compiler to write the firmware and providing these object files to Proteus in place of the HEX file provides a much richer working environment.

We recommend you use the free Labcenter VSM Studio IDE. This will greatly simplify the task as it will automatically configure supported compilers to work with a Proteus VSM simulation.

If you prefer to work inside your own IDE then you will need to set your compiler options manually. After compiling for debug, all you need to do is specify the debug file from the compiler as the program property of the microcontroller on the schematic.

VSM Studio supported toolchains

- IAR
- GCC
- Keil

With continual development on the Proteus Design Suite we endeavour to keep all content updated with the latest product details. On rare occasions this may not happen immediately, and website content will then be incomplete or inaccurate. We will attempt to correct any such errors as soon as possible, E&OE.