DDGen (Device Driver Generator) Product Brief

Description:

DDGen is a software tool (*US & India patent*) designed for use by Embedded System Developers and IC design engineers to automate device driver and firmware development.

The tool methodology is based on the formal high level specifications for the device (IC) and the run time environment (software and system) details. These specifications are used as input to the tool, DDGen (code synthesis tool), to generate ANSI C compliant device driver and firmware code.

DDGen is a unique System Design Tool with no competing product in the market. The tool helps:

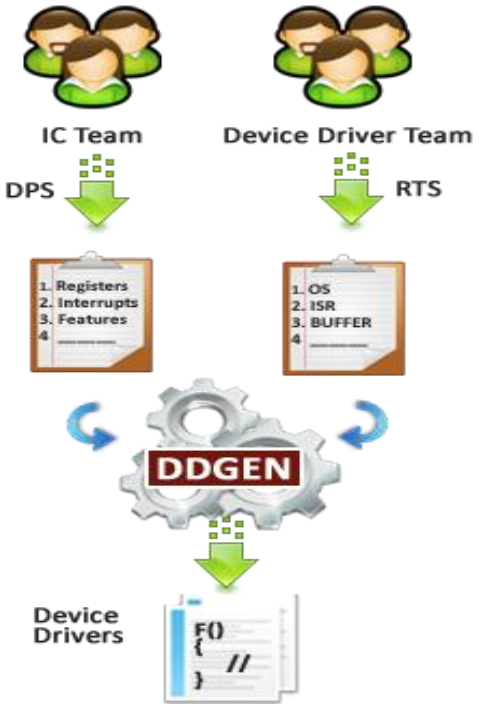
- Semiconductor companies to develop device drivers before the silicon is in-house
- Embedded Device driver groups to down the effort and cost involved in device driver development by factor 3X
- IP Providers to value add their offerings by bundling production ready drivers with IP

Additionally, the tool can also generate post silicon system level test cases, RTL for device register map and a preliminary device(IC) data sheet.

The tool has a flexible licensing model to meet the industry requirements.

Features:

- DPS (Device and Programming Specification) enables the formal capture of the IC/Device specification during IC design flow
- RTS (Run Time Specification) allows the capture of the software and systems specification of the driver environment
- The front end specification details (DPS and RTS) can be customized as per requirements
- The input files are currently edited using a text editor; a Graphical User Interface implementation will be available shortly
- Available on Windows and Linux platforms
- Current version of tool supports code generation for:
  - Operating Systems: Linux, Win CE, VxWorks, iTRON, Null OS systems
  - Any class of embedded devices such Ethernet, USB, Communication, memory, or any control type of including DMA controller, interrupt controller, etc...
- Device driver code generated in ANSI C (C files and header files) that an application programmer can use in their designs
- Data sheet generated in HTML
- Automated Test case generation for driver testing
- Register map RTL generated in Verilog



Note:
DPS : Device and Programming Specification
RTS : Run Time Specification

Advantages:

- 3X productivity gain for firmware and device driver development
- Enforces the right development frame-work across design flows by providing higher level of abstraction for device and run time environment specifications.
- Semiconductor, OEM/ODM firms can lower customer support effort by deploying the tool as first line of support
- Allows true code re-use across (IC and SW) teams
- Supports IP-XACT style specification capture
- Specification to aid silicon verification

For more details on product, deployment, licensing terms and conditions and BETA sites please contact: info@vayavyalabs.com

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