

Abstract

Platform Integration means integrating all the IPs for a SOC (system on chip). This was previously done manually which took a lot of time as interconnections was time consuming but with the advancement many tools have been developed to automate the process. Synopsys has contributed a lot through core tools. SPIRIT is also a boom to IP reuse world. IP-Reuse simply means reusing some part of the design previously done by others for our design. In some sense every design benefits a lot from the previous work either in terms of technology or in terms of design techniques. But what is commonly termed as IP Reuse refers to direct inclusion of a piece of design from an existing design. IP Reuse may refer to reuse of designs within a design group, within a company or from external IP providers. Though conceptually identical, these reuse methods differ in the protocols and issues involved with reuse. IPXACT is a new name given to SPIRIT, which is a consortium between 6 companies upon a common standard. The IPXACT shell works on a Java platform and is used to extract the values from the IPXACT views which in any other format could be used as desired.

As all major vendors and manufactures are involved so it leads to standardization. This thesis consists of proposal for the IP Reuse Methodology for integration on a IPXACT shell.

This proposed methodology is verified with the results of the existing methodology and have been found to be compatible with the existing flow also standardized. The IPXACT view of the IPs was generated along with the bus definition and the config files. These along with the connectivity information were then given to the core Assembler for the assembly.

Few scripts for the automation of the task have been written in TCL(tool command language). Also the generator for the design file was also written.