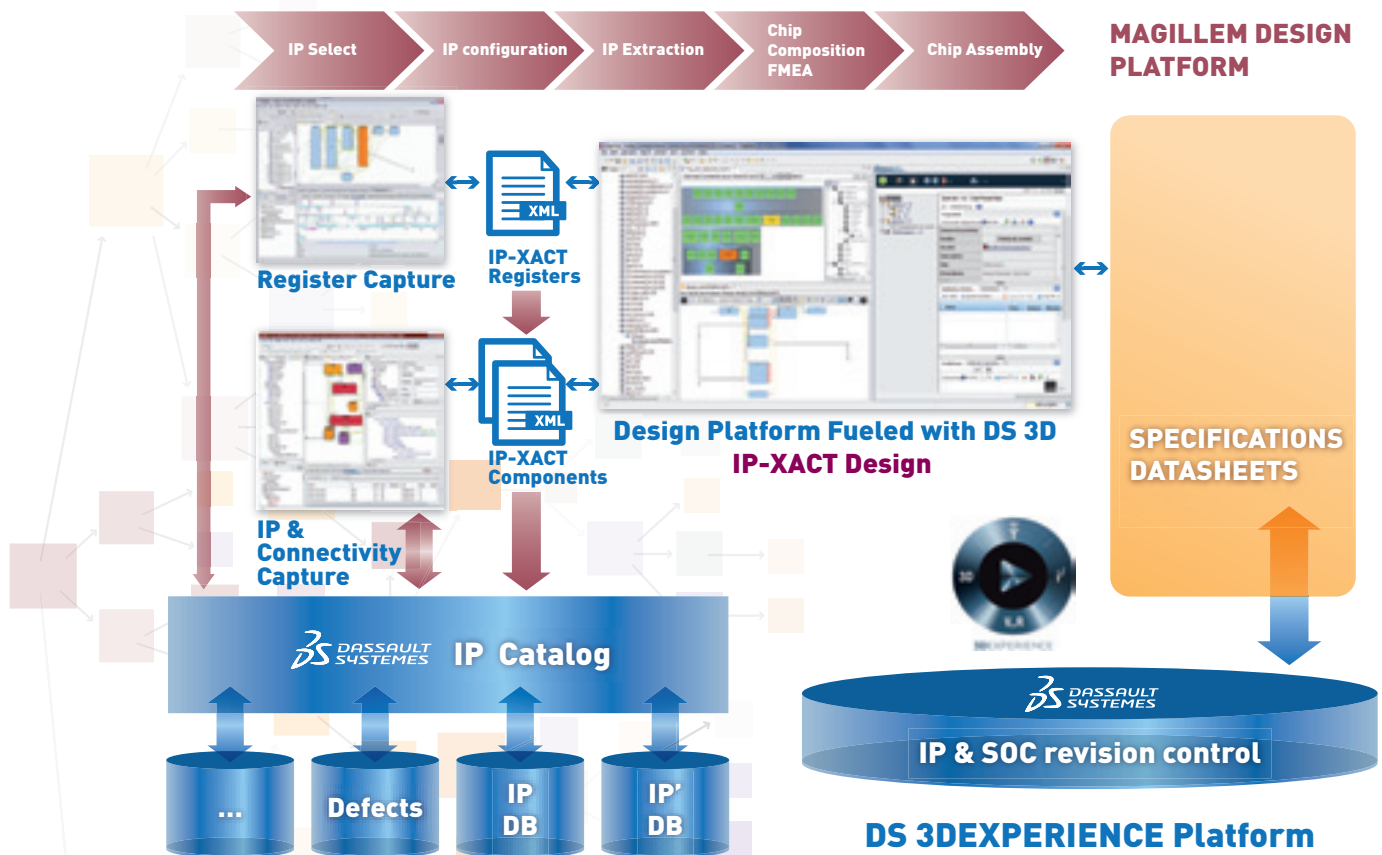


IP Management and Integration: Synchronize the design database and documentation with the 3DEXPERIENCE Platform



Magillem System on Chip Assembly fueled with 3DEXPERIENCE Platform optimizes IP governance, design flow, IP Reuse and collaborative work.



**Software that streamline
your design and documentation flows**

Our customer is a key supplier for automotive electronics :

“We optimized IP reuse, improved IP quality & integration while reducing time to market”

Magillem Content Platform & Dassault Systemes 3DEXPERIENCE Platform

→ Fuel the Design database bringing IP management capabilities to all IP lifecycle stakeholders through an integrated platform

→ Optimize IP Governance accessing IP relevant facets according the type of user and context

→ Improve the flow connecting IP design reuse and IP governance processes

→ Manage Defect & Traceability expediting propagation of IP modifications and improving IP Quality.

IP based design methodologies in the Semiconductor industry

System-on-Chip (SoC) designs now and into the future are almost all platform based. This means that the sub systems that make up them are usually a blend of internally developed and externally acquired IP that can be catalogued for a dedicated purpose such as 3D video, GPS, Wi-Fi communication and so on. SoCs can save space and power while improving speed, performance and in an ASIC are the lowest costs for the highest volume. Designing a platform based SoC that reaches its business requirements for time to market amounts to the effective reuse and management of internal and external IP blocks, digital or analog. This includes using standard processes with sign-off and release controls, enforcing the appropriate use of licensed and negotiated IP and improving the ability to find IP whilst maintaining tight controls on visibility and access.

Situation to be improved

The chip architect is defining the system partition/map and is looking for potential IP. He/she searches internally by looking at other projects, talking to peers over the phone and by email and tries to piece together what is available. IP data are not consolidated, it is bit piece and fragmented over many systems, sometimes incomplete. It is difficult to find out contract and legal conditions on external IP. A lot of work and time is required to try to understand what is available and in what state. The result is an increase in the task which can result in a delay to the market. Even worse is that the design may start with illegal IP or a new sub system / IP block may be developed in the context of the project when in fact it is not actually necessary.

Goal

The goal is to incorporate already existing IP either external of internal (already approved in terms of legal, finance, compliance, IP maturity...) in the project to avoid development costs and speed time to market. To be confident in the IP quality and validity, to seamlessly integrate the IP into the elaboration environment and to allow for the dynamic updating of important governance assets such as defects / change as IP is reused across the projects in the company.

Solution

The solution experience combines the usage of Magillem Content Platform and Dassault Systemes' 3DEXPERIENCE business platform. It allows the IP catalogue to be leveraged to search for existing IP, to request access, to request a need for IP so that all IP tasks are centralized and capitalized for the overall benefit of the company. The elaborated design is constructed in Magillem Front end Assembly tools (connectivity & registers) and referenced back in the catalog to the configurable IP that has been instantiated. This allows for the effective tracking of change/enhancements/maturity/defects throughout the entire design (and manufacturing) process. Use of IP and issues/ changes within a project context can be capitalized for the benefit of other projects. Mistakes are eliminated, the correct IP is "designed in", productivity is increased, time to market windows are met.