

SpyGlass[®] Physical Base

Early Implementation Feasibility Analysis of RTL Blocks

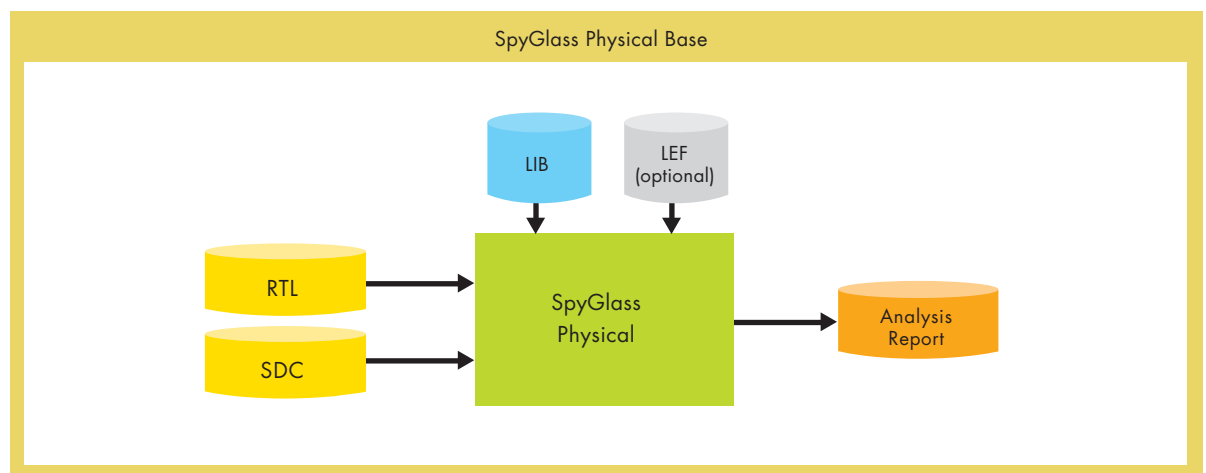
RTL design decisions have significant impact on the timing and physical layout of the chip. Addressing timing and physical issues late, at the gate level, can cause costly iterations between back-end and front-end designer teams. The SpyGlass[®] Physical Base solution provides early estimates of area, timing and routability for RTL designers without the need for physical design expertise or tools.

The Problem

- Delayed time to market – Lack of awareness among RTL designers about physical design implications of their RTL code can cause multiple iterations between front-end and back-end designers resulting in weeks to months to the design schedule
- Higher cost – The later the problems are detected in the design cycle, the more expensive it gets to correct
- Debugging takes expertise and time – Debugging the design on deeper aspects related to timing, power and congestion at the gate level burdens both front-end and back-end teams

The Atrenta Solution - SpyGlass Physical Base

- Provides a design dashboard with early estimates of RTL block power, timing, and congestion which is easy to understand for RTL designers and managers
- Provides rich visualization and reporting to debug timing, congestion, area and power issues
- Cross probes to RTL/schematic to facilitate easier debug
- Provides accurate and fast what-if analysis of multiple floorplan configurations
- Provides fast analysis to enable multiple iterations within a day

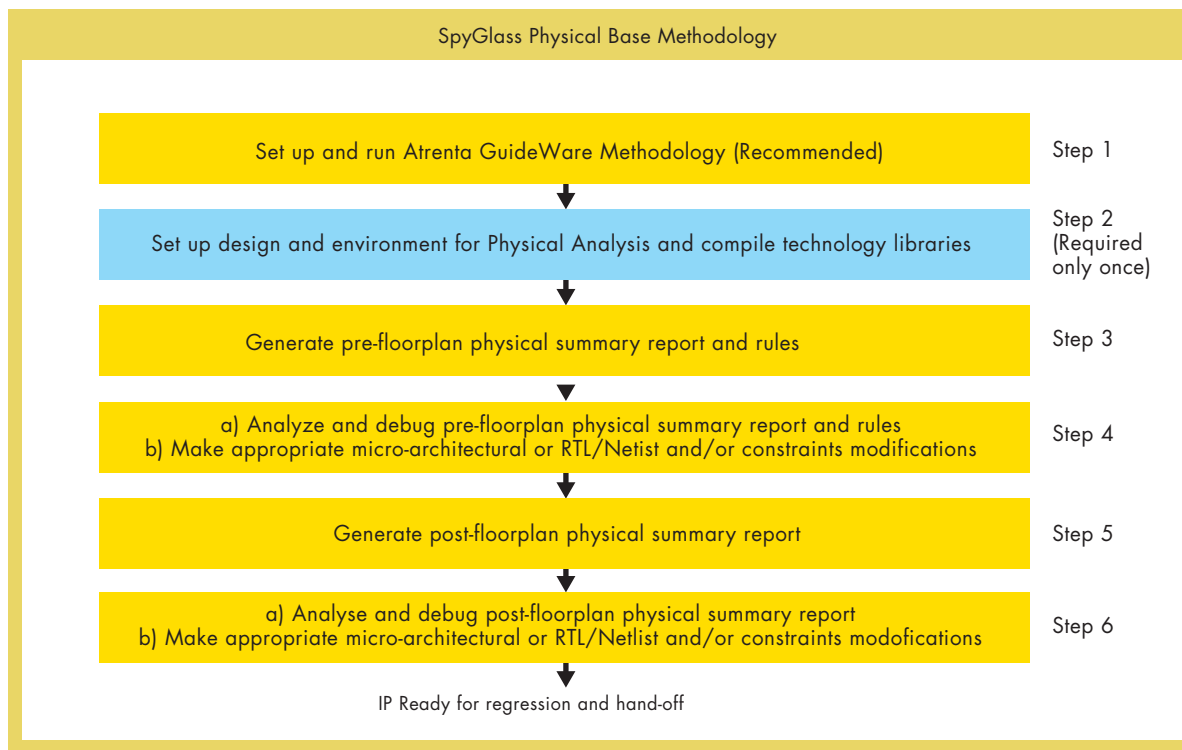


SpyGlass Physical Base Methodology

For RTL designers, the methodology begins with the SpyGlass solution to ensure that RTL is lint-clean and all RTL blocks have clean timing constraints. The SpyGlass Physical Base solution provides an easy to understand physical summary report to diagnose area, congestion, timing and power problems in RTL. These issues can be

debugged and fixed with help of rich visual and report capabilities available in the solution.

The result is a physical-implementation-ready RTL which results in minimal iterations between front-end and back-end teams.



The Atrenta Difference - SpyGlass Physical Base

- Provides fast analysis to enable multiple iterations within a day
- Provides for an early analysis even with incomplete RTL or constraints
- Integrates with the GuideWare™ methodology, including Physical Rules
- Use-model supports easy adoption by RTL designers
 - RTL designers can take corrective action based on rule violation reports and area, congestion and timing reports without having to learn physical aspects or develop tool expertise
 - Integrated with the SpyGlass platform
- Provides a dashboard for design engineers and managers
 - Can be easily incorporated as a regression tool
 - Quantified metrics for area, congestion and timing (PACT)



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