CPF Analyzer

Front-End for Power Aware EDA Tools

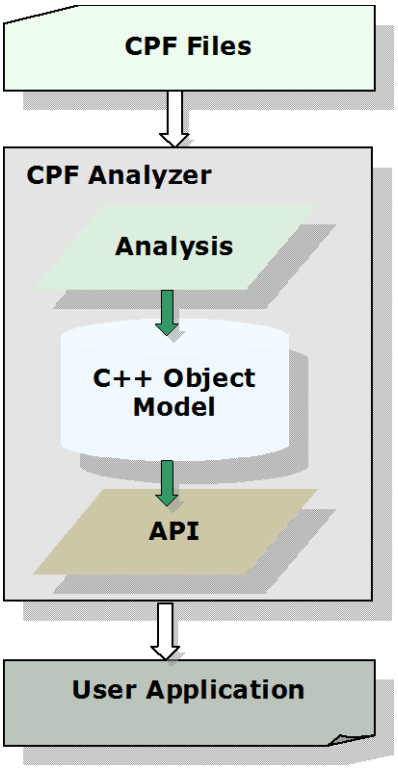
Highlights

- A customizable framework for annotating power intent into the design at any stage in the design flow: RTL, logic, placement
- Support for all CPF commands up to Version 1.1
- Complete Support for CPF-1.0 and CPF-1.1 in a single library
- Flexible and easy to integrate C++ interface
- Dynamic and extensible Object Model.
- Internal memory manager for optimum use of memory
- Customizable error callback routines that return file name and line numbers
- Can be easily integrated with existing tools built on top of TCL interpreter
- Run on non-panic mode, - reports all errors at one go
- Fully re-entrant
- Is backed by Interra's field-proven expertise in developing analyzer and synthesis libraries

Addressing the needs of EDA tool developers who need a syntax checker plug-in for SI2's Common Power Format (CPF), Interra offers CPF Analyzer – A TCL based syntax and semantic validator for CPF. Available as an efficient and customizable plug-in, the CPF Analyzer assures faster time-to-market for CPF-based tools in the low power domain.

CPF Analyzer performs complete syntax check for all the CPF commands in accordance with CPF Version 1.1, Sept-19, 2008. In addition, the analyzer performs implicit semantic validation for the CPF commands. The CPF analyzer uses an efficient C++ object model to represent the contents of a CPF file. The object model can be easily accessed using the analyzer's C++ interface enabling seamless integration with C++ based EDA Tools.

CPF Analyzer is available on Solaris, Linux, and Windows platforms.



The CPF Analyzer Features

Complete Support for CPF-1.1

The analyzer performs syntax and semantic validation for all the commands in accordance with CPF Version 1.1.

The analyzer is completely backward compatibility with version 1.0.

Extension of TCL Library

The CPF analyzer is an extension of the TCL interpreter and supports all the in-built TCL commands.

The analyzer uses TCL8.4 library. The TCL library has been customized to get the line number and file name.

C++ Class Hierarchy Accessed Through C++ Interfaces

The analyzer provides an efficient and robust C++ class hierarchy for storing the power information. This information can be easily accessed through the C++ interface of the analyzer.

Editable Object Model

The analyzer's object model is dynamic and editable. C++ based applications can access the object model using the analyzer's C++ interfaces. This gives the extra power to those EDA tools that read CPF power information as input and then writes out a different CPF by taking care of name mapping from RTL to gate-level netlist. The analyzer also provides a framework to create the CPF object model from scratch!

Reuse of Customized TCL Interpreter

User applications, which have a customized TCL interpreter for reading other TCL based formats, such as SDC (Synopsys Design Constraint), can simply re-use the already customized TCL interpreter and extend it by adding CPF related commands into it.

Configurable Error Callback

The analyzer allows registration of custom error messages for application-specific needs.

Also available:

- Cheetah System Verilog Analyzer
- Jaguar VHDL Analyzer
- Analyzers for UPF, HSPICEE, SDF, SPF (DSPF/RSPF), SPEF, LEF, DEF, SAIF, and VCD.

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