Cynthesizer:
Silicon Proven SystemC Synthesis For the Next Generation of Design

"Our success with Cynthesizer in the H.264 design clearly demonstrates that a C-based design flow is not only viable, but fundamental as we move to 90nm and beyond."

Tohru Furuyama, PhD
GM SoC R&D Center
Toshiba Semiconductor

FORTE
DESIGN SYSTEMS

Forte:
The Leading ESL Synthesis Vendor

- **7 of top 12 semiconductor suppliers use Cynthesizer**
- **26 user companies and growing**
- **Over 150 customer designs completed**
- **Most production experience**
  - Production quality silicon
  - Multi-block subsystems
  - Multi-million gate designs
  - Algorithm and control

Core Principles

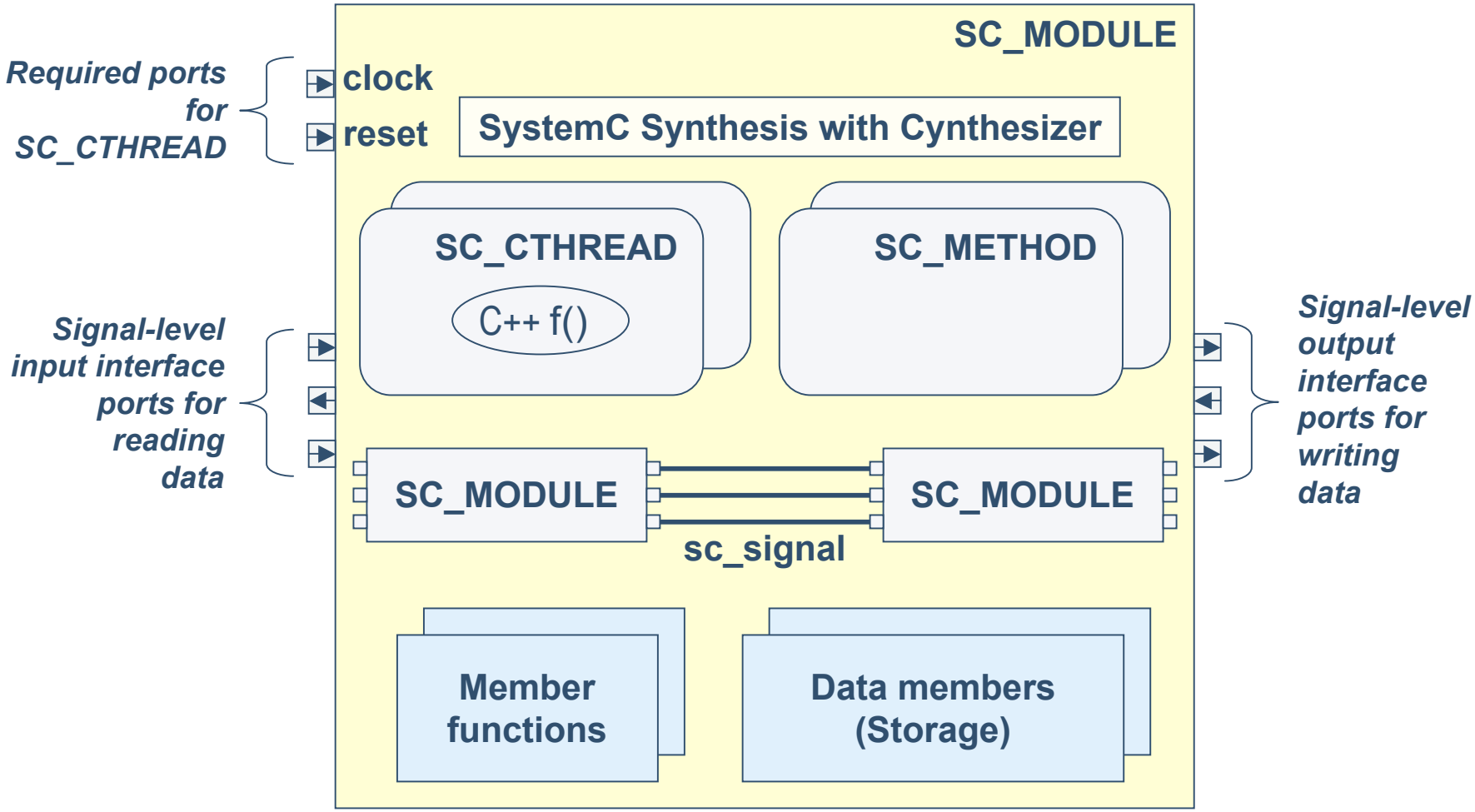
- **Deliver high-quality real silicon**
- **Consider verification early and throughout the design process**
- **Raise abstraction level**
- **Commit to and drive standards**

Why Choose SystemC For High-level Synthesis?

Only SystemC Synthesis Provides the Required Abstraction and Lets the Designer Control the Hardware Architecture

	SystemC	C++	ANSI C	System Verilog
Object-oriented features for managing complexity	Yes	Yes	No	No
Compatible with algorithm languages	Yes	Yes	Yes	No
Bit-exact data types	Yes	No	No	Yes
Fixed-point data types	Yes	No	No	No
Explicit concurrency – synthesis and simulation	Yes	No	No	Yes
Asynchronous paths	Yes	No	No	Yes
Structural hierarchy	Yes	No	No	Yes
Custom interfaces – synthesis and simulation	Yes	No	No	Yes
Same simulation and synthesis semantics	Yes	No	No	Yes
Multiple levels of abstraction	Yes	No	No	No

Synthesizable SystemC Module Structure



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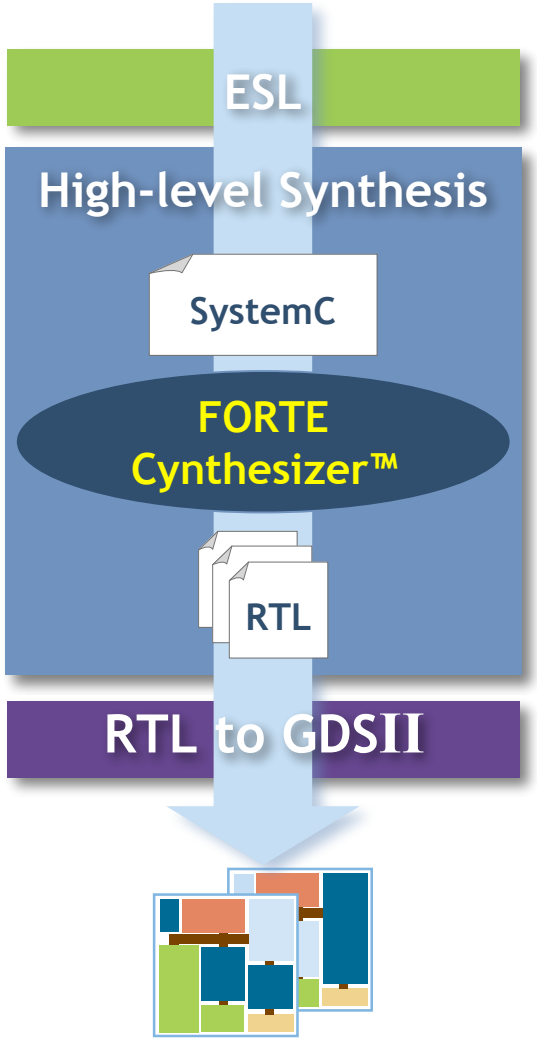
Silicon Proven SystemC Synthesis



Fastest path from ESL to production silicon

- SystemC standards-based high-level design and synthesis
- Deployed worldwide in leading companies
- Proven quality in production designs
- Reduces design and verification effort
- Maximizes ROI with behavioral reuse
- Most complete flow, ESL→GDSII
- Fits into your existing design flow