SIMULINK-2-TINY

OXFORD
DIGITAL

Direct conversion of Simulink® designs straight to optimised DSP code running on a *TinyCore*

Overview

Simulink-2-Tiny allows users of Matlab Simulink® to get all the benefits of *TinyCore* and *TinyTools* with their existing DSP modelling suite.

Simulink-2-Tiny provides a Simulink® library of models that produce bit-accurate simulation of each *TinyCore* instruction. Developing DSP using these instructions therefore gives an exact simulation of the algorithm's performance when running on a *TinyCore*.

All of the standard Simulink® blocks can be combined with the *TinyCore* blockset, giving the developer the ultimate flexibility for creating and testing a DSP algorithm.

The *TinyCore* blockset is accompanied by a Netlist extractor tool. This isolates all of the *TinyCore* instructions and outputs a Netlist detailing their interconnectivity from a hierarchical Simulink® design.

Simulink® and **Simulink-2-Tiny** replace *TinyDraw* as the graphical programming interface, as the extracted Netlist feeds the standard *TinyTools* suite - including the powerful *TinyOpt* optimising compiler.

Simulink-2-Tiny enables a DSP algorithm created in Simulink® to be optimised and running on a low-gate-count *TinyCore* in real-time and with full real-time parameter control within seconds without the delay and "code-bloat" normally associated with such tools.

Since **Simulink-2-Tiny** enables a single suite to be used for DSP development, simulation and algorithm completion, this creates an incredibly fast development process and a shortened time to market.
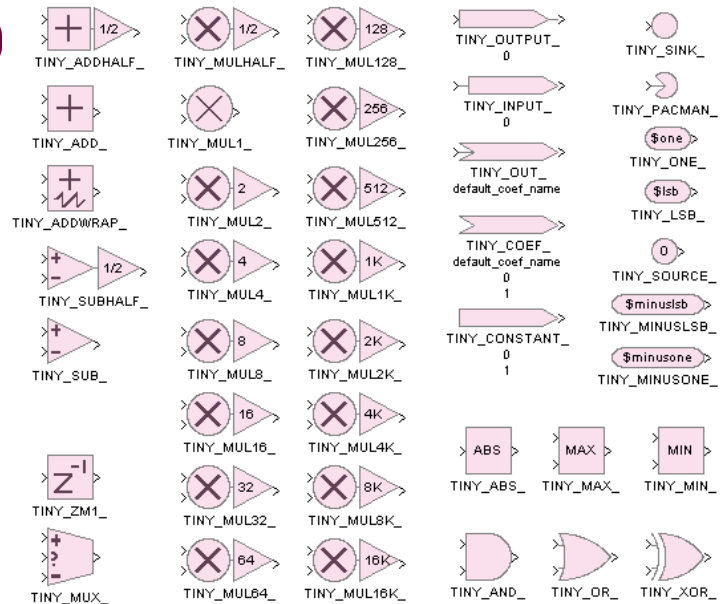
The full range of *TinyCore* instructions are provided for use in Simulink®.

Features

- Bit-accurate *TinyCore* simulation.
- Fully compatible with standard Simulink® blocks.
- Netlist extractor provides compatibility with *TinyTools*.
- No need to recode a DSP design – Simulink® models are the source code.
- Simulation bit width can be matched to that of the target *TinyCore*.
- Compatible with hierarchical Simulink® models.
- Standard test and analysis signals can be used in the Simulink® environment to analyse results

info@oxford-digital.com   +44 (0)845 450 5664   www.oxford-digital.com