Weekly Project Status Report

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Project: Design and Verification of Multi-Channel ADPCM CODEC

Project Overview
The class design project is to design a complex system design of a Multi-Channel Adaptive Differential Pulse Code Modulator and Demodulator (MCAC) compatible with G.726 & G.711 Specifications.

Work Completed
03/07/2014: In order to make a-law pass, the G726 implementation of compress.c and inv_g711 in the G191 push was analyzed with the existing modules.
03/08/2014: Found that the negation of the bits were done in a different order in the compress.c file.
03/09/2014: The inv_g711 file was modified along with the compress file. A-law passed for all sequences.
03/10/2014: The expand module was assigned to me for rtl verification with the c model test vectors. The template for the test bench was studied. The architectural proposal for the accum module was discussed.

Work Awaiting Completion
03/12/2014: Perform RTL verification of the assigned module.
03/14/2014: Implementation and synthesis of a bit serial accum module.

Complications
The G191 puss was very helpful in identifying the mistake and making a-law work.