

# 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

02/26/2014: Started working with the test vectors for u-law for different bit rates. Modified the chk file with relevant test vectors and made the system to pass the testing for 32kbp/s and 24kbp/s.

02/27/2014: The u-law test vectors (RESET and HOMING) were tested and made to pass for the 40kbp/s and 16kbp/s for the normal mode.

02/28/2014: The overload mode was tested for all the bit-rates and the u-law successfully passed.

03/01/2014: The internal processing variables were truncated (masked) to bits that was specified in **TABLE 6/G.726** from the spec and pushed.

03/02/2014: The A-law test vectors were modified to remove EOF errors and tested. The encoder for A-law passed. Started working on the decoder testing for which the a-law failed. All the modules which were law dependent were analyzed. Modified the synch.c for errors in implementation. But still A-law fails for decoder

## Work Awaiting Completion

03/05/2014: Make A-law test vectors to pass for decoder.

03/06/2014: Work on the C model to get identical test results for a-law and u-law.

## Complications

Interpreting the table data from the specification was difficult because of the unknown symbol that was included along with the data.