Federal Agencies Digital Guidelines Initiative

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Tools: ADCTest

ADCTest is an open source software application designed to facilitate performance testing of analog-to-digital converters (ADC) against FADGI'S 2017 Audio Analog-to-Digital Converter Performance Specification and Test Method Guideline (Low Cost).

Developed by AVP in collaboration with Christian Landone, ADCTest is not intended for absolute, high precision testing for the purpose of comparing the performance multiple ADCs, or analyzing nuanced aspects of ADC performance. Instead, its primary purpose is to provide users with a low-cost and simple test tool that will be employed routinely. Routine performance testing, even with lower performance test tools, enables the identification of significant failures, the relative comparison of ADCs in certain cases, and the ability to establish a benchmark for a given ADC to track trends in performance over time.

ADCTest automates the testing protocol for all criteria listed in the FADGI low cost quidelines with a goal towards answering three basic questions:

- · Is my ADC/system failing?
- How does my calibrated, healthy ADC perform relative to the guideline and other ADCs?
- Is my ADC/system performing optimally relative to its own specifications?

For more information on the low cost guidelines and metrics, see ADC Performance Testing: Low Cost Application, Release 1 (PDF 1.72MB).

Comments are always welcome.

2021 Updates and News

In 2021, ADCTest added the option for a built-in signal generator to support users who wish to test the performance of ADCs that are not immediately accessible to them, especially in outsourced digitization.

Blog post on The Signal about updated features: Reading the (Same) Signals: Using FADGI's ADCTest for Quality Control in Outsourced Audio Digitization, September 16, 2021

Kate Murray from FADGI/Library of Congress and Rebecca Chandler from AVP hosted a webinar and demo on ADCTest on October 21, 2021. See here for a link to the recording with closed captions and a transcript.

Download ADCTest

- Windows version: 0.2 version 303 (ZIP)
- · ADCTest on GitHub
- ADCTest user guide, including a change history: https://bit.ly/ADCTest-User-Guide
- ADCTest, written in C++, has a 3-Clause BSD License from the Open Software Initiative.

Working Groups

<u>Still Image Working Group</u>
This group is involved in a cooperative effort to develop common digitization guidelines for still image materials.

<u>Audio-Visual Working Group</u>
This group works collaboratively on common and sustainable technical guidelines, methods, and practices for digitized and born digital sound recordings and moving images.

Last Updated: 11/04/2021