



The Nielsen Audio Video Encoder (NAVE) Questions & Answers

How does encoding benefit a station or network?

Encoding of television signals is critical to audience measurement in a digital environment. To accurately identify television distributors (including broadcast stations or cable networks) in this environment, Nielsen Media Research is introducing a new Active/Passive Meter (A/P Meter).

When the new A/P Meter is installed in sample homes, it identifies stations and networks by reading unique identification codes inserted into the television signal at the distribution source through the Nielsen Audio Video Encoder (NAVE) unit. By encoding your broadcast signals with a NAVE unit, you will enable Nielsen to provide ratings data for your programming, whether it is received in a digital, analog, or combined viewing environment.

Why is Nielsen introducing this new audience measurement system?

Although our current method of identifying broadcast tuning by measuring the signal frequency works in the current complex viewing environment, it will not be sufficient in a digital broadcast environment. This is because a single digital signal can transmit more than one program stream -- a process called 'multiplexing'.

When clients install and activate their new NAVE units, Nielsen's A/P Meter system will be able to detect the codes in the A/P Meter sample households and identify each encoded channel. Unlike the current measurement system, it will be able to identify viewing whether or not the signal is multiplexing several different programs.

How the A/P Meter Works

The A/P Meter system uses a pair of identification engines to detect codes contained in broadcast signals that are delivered to the television set. These codes contain information that allows the meter to identify the broadcast source. The meter also extracts unique samples of the audio content (called 'passive' signatures), which Nielsen Media Research matches to a reference library of such signatures, collected at our Media Monitoring Sites (MMS). If the identification code is detected in the signal, credit can be easily assigned. Otherwise, the A/P meter's backup system matches its audio signatures to the signatures acquired from the Nielsen Media Monitoring Sites (MMS). Video signatures (samples of video content) were eliminated in February 2001, after it was determined that they would not be applicable in a convergent environment.



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If the NAVE is needed to measure audiences to digital signals, why do I need to encode my analog signal?

The 'channel detection' based system of metering in current technology is also rapidly becoming challenged in the analog TV environment, just as it is in the digital environment. The current metering system is incompatible with a growing number of new analog TVs. Manufacturers of analog TVs and related devices are increasingly using digital circuits and techniques, integrating tuning and other functions on massive chips that cannot be accessed by the current metering technology. To keep pace, it is time for Nielsen to deploy a universal system that relies on NAVE encoding of analog and digital television stations.

If my station is not in a metered market, would I benefit from encoding?

Stations in diary-only markets do not need to encode to ensure that their audience estimates can be collected in local markets. However, there are several benefits for diary-measured stations that do encode:

- Stations that spill into metered markets will want to encode to ensure that their audiences can be reported within their adjacent metered markets.
- Also, Nielsen Media Research's sample households for the national ratings system are distributed across the country, even in markets that are not metered locally. Even though your station might not be measured locally using meter technology, there are national panel members located in your area, collecting data for the national metered ratings system.

What happens if no audio code is present in the sample home?

Nielsen's patented Nielsen Media Monitor Sites (MMS) collect and store a constant stream of unique audio signatures for each broadcast, cable, and satellite signal received, covering all 210 TV markets. This includes all client PBS stations and client cable origination channels.

If any station's NAVE encoder is inadvertently interrupted, the A/P Meter installed in Nielsen sample homes uses the same patented technology to collect and store passive signatures for all non-encoded programming viewed. These signatures are downloaded each night to Nielsen's operations center. To identify viewing, the passive signatures collected from the A/P meter in the home are matched against the signatures collected by the MMS. This process occurs during the normal overnight data collection.

The passive signature-matching engine in the A/P Meter system is intended as a fail-safe back-up system, to be used when codes are not present in the signal.



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When will the A/P Meter system be ready?

Nielsen Media Research will begin deploying the new A/P Meter system into the Nielsen samples in July 2004.

If we're not planning on installing the first A/P meter until mid-2004, why can't we wait until then to install the NAVE units?

Nielsen Media Research has almost 500 clients in our 55 metered markets. It would not be possible to assist each client properly in the installation of NAVE units if they wait until the last few months prior to the A/P Meter launch in July 2004 to install their equipment.

How many Nielsen NAVE encoders will I need?

Each analog channel and digital multiplexed program stream must contain a unique code to be properly identified by the A/P meter. Therefore a NAVE unit will be required for each signal, analog and digital, as well as for any backup systems or multiplex channels.

Where do I order the NAVE units and how much are they?

NAVE units may be ordered directly from the manufacturer, Norpak, a well known and respected broadcast equipment manufacturer.

Norpak Corporation
10 Hearst Way
Kanata, Ontario
Canada K2L 2P4
Telephone: (613) 592-4164
FAX: (613) 592-6560

After you contact Norpak, they will notify Nielsen Media Research of your request, and we will provide the necessary assistance to bring the units on-line. Their price is \$5,800.

Are NAVE units for both the analog and digital signals available now?

Currently only the unit that encodes the standard definition television signal is available. A future model will handle high definition video formats (1080i, 720p, etc.) as well as multiple audio channels such as Dolby 5.1. This unit will be available in early 2004.



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Are there any other related expenses a station might incur?

Possibly. The NAVE encoder was designed with FCC compliant new digital interfaces. If a station is operating an analog plant, they will need additional standard analog-to-digital (A-to-D) interface devices available from many broadcast equipment suppliers for proper connection. Also, stations may wish to purchase a reader to monitor for proper encoding. The Nielsen Universal Reader (NUR) is available from Norpak at a price of \$795.

Where do I go for additional questions?

Please contact your Nielsen Media Research marketing representative with any additional questions you may have.