

# Tunesat: A Revolution in Music Performance Tracking

By [Mark Holden](#) • Published May 11, 2009

The executives of TuneSat are on a mission: to accurately track the broadcast music performances of its clients and deliver that data to the proper rights recipients; to do so precisely by channel, time, title, usage, and duration of the music, and to report the data in virtual real time to TuneSat's web-based subscribers, updated to the latest hour of broadcast, 24-7-365.

That's quite an order, to be sure, but it's exactly those capabilities that TuneSat advertises. The executives associated with TuneSat have considerable experience in the arena of waveform recognition technologies, going back over a decade when SESAC and Aris MusiCode announced their watermarking partnership. This was the first-ever PRO (performing rights organization) adoption of a watermarking technology and detection system deployed to automate the process of music performance reporting. Prior to the

founding of TuneSat, these same execs were around and participating as Shazam, a fingerprinting solution, was unveiled and eventually implemented into BMI's music tracking arsenal.

To differentiate *watermarking* and *fingerprinting* technologies, a unique and inaudible "watermark" is embedded into a music master so that the code and duration of the play may be detected and identified as the music is performed. In contrast, a "fingerprint" takes a picture, so to speak, of a piece of music that is then archived and matched to broadcast performances as they occur. For all their differences in methodology, watermarking and fingerprinting are BOTH waveform recognition technologies.

So in a technological age where a can of pork n' beans can be tracked from coast-to-coast, or a bank card or telecom transaction can be reported back to the user within minutes or seconds, let's have a look at music performance tracking in American broadcast television.

According to Chris Woods, executive vice president of TuneSat, there were approximately 432,000 automated detections of the *FreePlay* production music library within a 30-month period. Of those hundreds of

thousands of documented plays, American PROs reported and paid the rights owners for only 28% of the actual performances. *In this study, the PRO reporting was inaccurate or incomplete almost three-quarters of the time.*

This statistic, while shocking and incomprehensible to many, may be emblematic of the fundamental disconnect between the reality of music performances on television and how ASCAP, and perhaps other performing rights organizations, track and distribute royalties for music usage. That is, the difference between the music actually played on television versus the statement of performances as reported by ASCAP to a composer, songwriter, or music publisher.

TuneSat wants to put an end to the credibility gap between discretion and reality.

Here's essentially how TuneSat technology works. A "fingerprint" is taken of a digital audio file, essentially extracting and storing the "DNA" of that recording into the TuneSat archive. At a later time, particularly when that music is broadcast, TuneSat has the capability to recognize and log the broadcast activity of that scoring cue or song.

Additionally, TuneSat reports that its automated system can recognize the original audio subsequent to editing, sample and bit rate conversions, alternate digital codec formatting, high digital compression ratios, pitch shifting up or down, and time compression/expansion conversions.

All this precedes the really astonishing capabilities of this technology. According to TuneSat, detections of the fingerprinted music can still be identified *AFTER additional audio elements are added to a media production*. These include voiceovers, dialogue, sound effects, and outright noise. Further, it's reported that the tolerance level of TuneSat technology is remarkably robust in "reaching through" overdubbed audio in order to detect and log the durations of the original waveform.

TuneSat monitoring is currently deployed for the east coast feeds of all networks, superstations, and basic and premium cable television—about 100 channels—but has the capability to expand into any number of local television and radio markets. From all indications and reports, this TuneSat tech represents a genuine innovation and a fundamental paradigm shift in music performance detection.

According to Chris Woods of TuneSat, “For us, the holy grail was the ability to identify music so buried under sound effects as to be barely audible, and to gather full durational information as well. With that capability, we offer quite a technology to our clients. And we can do it with durations down to 3 seconds.”

TuneSat’s Woods went on to specify that music detections, even in extremely “dirty” audio environments, may be accurately identified in durations as short as 5 to 7 seconds. Indeed, a stunning capability. As for identifying songs and score cues of median length as typically used in broadcast media, chock full of VO, dialogue and sfx, “No problem,” says Woods.

So how do we as composers, songwriters, and music publishers access this revolutionary service? It’s as simple as establishing a secure online subscription to TuneSat. You send a hard drive containing your digital audio files to the company, or an accepted digital storage media such as DVD-Rs. TuneSat then extracts and archives fingerprints of your catalogue (along with any accompanying metadata) and returns the hard disk to your door.

There's a 50-cent fee for you to pay per unique title of music, and the aggregate cost of fingerprinting your catalog becomes a separate, annual membership fee. There's an additional item in the pay structure—a small per-detection fee as “hits” of your music are reported to you via the personal console you or your company accesses online. *On the hour*, you'll see updated stats of where, when, and how long your music was played.

Curious as to how that 10-second snippet of your epic tone poem, “Giganticus,” was used during Regis & Kelly, All My Children, Celebrities Run Amok, or NBA B-Ball? Just click the proper icon on the TuneSat interface to download the actual recording of your music gleaned from the airwaves. Or perhaps you'd prefer to have the data in spreadsheet format, exported to Excel as you gleefully chant, “*ca-ching, CA-CHING!*”

Industry pilot-programs using Tunesat reveal not only vast numbers of undetected performances, but significant numbers of unlicensed performances, where the production company or broadcaster had used music without the proper licenses in place from the copyright owners. This apparent copyright infringement may have wide-ranging ramifications for copyright owners, composers and songwriters.

Of course, your next step is to deliver (what you hope to be) voluminous pages of TuneSat usage data to ASCAP for purposes of receiving complete and accurate performance royalties for your musical works. At that time, you may hear a litany of phrases approximating “Sorry, it didn’t fall within our survey”, “Didn’t make the sample”, “There IS no HBO in Canada”, and my personal favorite, ‘Yes, that network is 100% census, but the cue sheet can’t be found. Better luck spinning our roulette wheel next quarter.’

Of course, you’ll be in a de facto state of negotiation from then on, trying to reconcile your known performances to what ASCAP insists is good and proper for you. But armed with TuneSat data, it would appear you’d be loaded for bear.

As for ASCAP’s obstinacy to even declare the *WILL OR INTENTION* to accurately track broadcast usages of its repertory, we’re all awaiting such an announcement should it ever come. It seems that certain ASCAP policy, designed to divert wealth from one member group to another, knows no bounds. And that a blind eye will continue to be turned to solutions such as TuneSat, as well as to others.

That is, until the membership decides they've had it with the feudalistic treatment and does something to purge all the longstanding problems and fundamental accuracy issues regarding ASCAP's tracking and distribution.

TuneSat, as advertised, challenges the very efficacy of all the automated tracking technologies currently deployed by our performing rights societies. The service offers a number of fundamental innovations that provide composers and songwriters with immediate, verifiable access to detections of their music. This is a game-changer, in that detections are the basis for royalty payments that have become the lifeblood of many composers and songwriters. How the performing rights organizations respond to TuneSat, and their acceptance of Tunesat reports, has the potential to affect the income of all working composers, songwriters, and publishers.