



# Stepping into Tomorrow: Technology and Tools for Marching Band

Today's repertoire of apps and other software can help with drills, organization, evaluation, and more.

**MANY OF THE** same technologies that are in use in the music classroom are finding their way onto the field as well. Here are just a few of the ways that the targeted use of tablets, apps, computer software, and other gear can breathe new life into rehearsals and performances.

## Preseason and Pit Technology Tools

For many schools, the use of technology comes into play long before the marching band season even begins. A case in point is the Hempfield High School Marching Band in Landisville, Pennsylvania, under the direction of Adam Gumble. "Technology plays an important role in nearly every aspect of our marching band program. During the early planning stages, our staff utilizes Google Docs to stay connected and share ideas. Then, we storyboard the whole show and digitally construct it using notation programs like Finale and drill design software like Pyware.

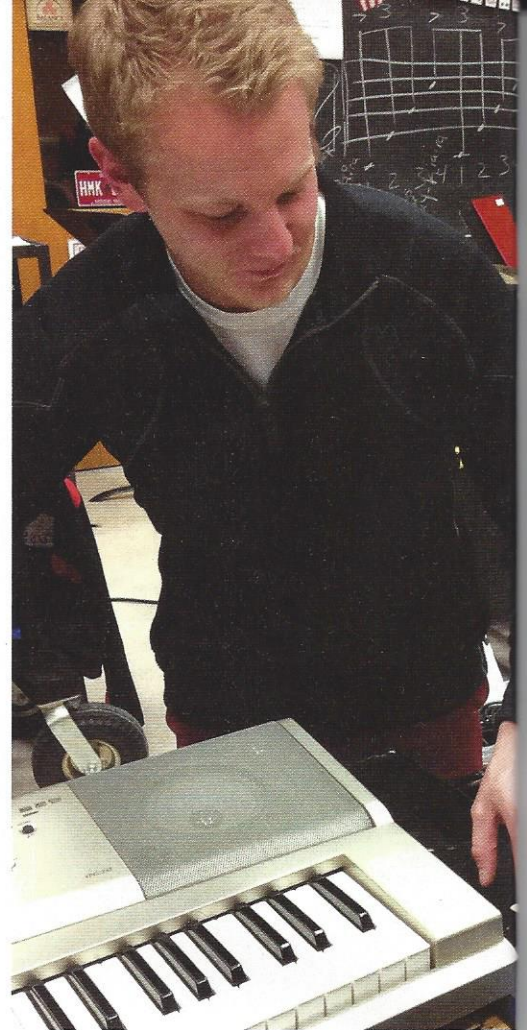
Since our music arrangers use Finale, we then generate audio files of the arrangements and individual parts so that students can have reference material to listen to when they

are practicing over the summer." He also shares the drill and music files via the band website, social media sites, or through a Dropbox account so that students can have anytime access to their materials and allow them to be as prepared as possible for rehearsals.

## Rigging the Band

Even the band itself gets a performance boost from technology, as the growth of the use of electronics and amplification in pit ensembles has become more commonplace. Jared Daubert, band director at Conestoga Valley High School in Lancaster, Pennsylvania, says that "We mic all of our pit equipment and synths. We have some parent and student quartermasters whose job is solely to organize and set up the electrical equipment, but the shows are designed so that they can be performed without the electronics if the need arises. It might be a little thin, but the show is not totally dependent on it."

For Gumble, the pit setup goes even farther into the technological realm with the use of a digital mixer that can be controlled remotely via an iPad. "It allows our staff to make adjustments to the volume of the front ensemble and any audio samples that directly impact the overall ensemble



balance that is experienced by the audience. The mixer is synced through a program running on a MacBook Pro. We then have a wireless network that connects the laptop to the iPad with no Internet access needed."

## Drilling the Drill

Many programs now encourage the use of tablets and smartphones over bulky binders. Daubert, for instance, is never without his iPad loaded with a copy of A.P.S. MusicMaster Pro, an app via which he carries all of his drill charts, scores, and other important documents. He has plans to expand iPad use significantly in the coming years. "Our goal moving forward is that the whole leadership corps and all of the principal players of the band will eventually have iPads to use during rehearsals."

For Jon Waters, director of marching and athletic bands at Ohio State University in Columbus, Ohio, the iPad has allowed the band to transform



HEMPFIELD PERCUSSION DIRECTOR DANNY MARK (LEFT) AND JACK STEINER DISCUSSING WHERE IPAD SAMPLES WILL BE TRIGGERED IN THE MUSIC.



HEMPFIELD ASSISTANT PERCUSSION DIRECTOR JACK STEINER (LEFT) SHOWS STUDENT VARPU SAVOLAINEN THE IPAD TRIGGER SETUP.

into a nearly paperless ensemble. “We used to go through almost half a million sheets of paper annually to print drill charts, music, and other materials for the students. With the iPads in use, we have already saved over \$25,000 a year in paper costs alone.” His program now outfits all ensemble members with school-owned iPads, which are signed out as the responsibility of each student for the season. Bearing outdoor use in mind, the band is also provided with special weather-resistant iPad cases, as well as shoulder straps that allow the tablet to hang at the side when not in use and flipped up easily when needed. These accessories—together with several specialized apps (see sidebar)—have completely changed the way this band rehearses and performs.

## Recording and Evaluation Tools

Today, almost every portable smart device has a built-in camera of some

kind, allowing opportunities for staff and band members to record clips of rehearsals, drill segments, and other events that can be used as individual or small-group instructional materials.

Gumble notes that easy access to video is essential to his band’s success, “Staff members are able to video students during rehearsals and give students immediate feedback on their performance. Likewise, many staff members like to create ‘judges’ tapes’ during full-ensemble rehearsals that can be shared with students online (Dropbox, social media groups, etc.). During championship week, a parent volunteer records the run-through at the end of each rehearsal. The video is posted on YouTube and is then dissected during a film session at the beginning of the following rehearsal. Students are then able to process their performance and create goals based on that feedback.”

At Ohio State, Waters uses a specialized iPad app called Coach’s Eye to give students and leaders very precise and instant feedback on their movements and performance. Using the app, they can move forward and backward frame-by-frame through a video’ allowing them to see minute details that might be missed with full-speed video.

## Communication and Management Tools

There are also specialized tools that make tedious, nonmusical chores much less frustrating—for instance, Charms Office Assistant, which is described as a complete management, communication, assessment, and financial system package that allows a director to manage almost every aspect of a band’s operations in one place. Charms Office Assistant allows a manager to track student and parent contact information, uniforms, fundraising, event scheduling, and

## APPS FOR THE FIELD

### A.P.S. Music Master Pro (iPad)

An all-in-one music tool that includes a sheet music reader, a metronome, a tuner, an audio recorder, a timer, and fingering charts in one easy-to-use app. [apsdevelopmentllc.com](http://apsdevelopmentllc.com)

### Drill Book Next (iPad and Android)

An app that imports and displays drill coordinates from a standard PyWare, EnVision, or Field Artist drill file. Students can view step-by-step drill animations on their tablets as needed. [drillbooknext.com](http://drillbooknext.com)

### forScore (iPad)

A well respected sheet music storage and annotation app that allows one to import files into ForScore from Dropbox or other sources and allow students to view and write on top of the music. [forscore.co](http://forscore.co)

### Dropbox (iPad and Android)

An app that allows one to share folders of documents and other files with students almost instantly. Drill pages, music, handbooks, and trip itineraries can be uploaded to a Dropbox folder from a PC or Mac, and thus be made available to everyone in the ensemble. [dropbox.com](http://dropbox.com)

### ownCloud (iPad and Android)

A free, do-it-yourself Dropbox competitor that allows your tech department to set up a dedicated file-hosting service on your own server. This is an option that can provide more control, lower costs, and no limits on storage space. [owncloud.org](http://owncloud.org)

### Coach’s Eye (iPad)

Although intended for athletic teams, Coach’s Eye provides a specialized video camera app that allows a user to instantly move forward or backward through a video, frame by frame. This is helpful for directors who wish to zero in on problem areas and show students exactly what needs to be fixed. [coachseye.com](http://coachseye.com)

### OTHER PRODUCTS MENTIONED IN THIS ARTICLE:

**Google Docs:** [docs.google.com](http://docs.google.com)

**Finale Music Notation Software:** [finalemusic.com](http://finalemusic.com)

**Pyware:** [pyware.com](http://pyware.com)

**Charms Office Assistant:** [charmsoffice.com](http://charmsoffice.com)

**EnVision:** [box5software.com](http://box5software.com)

**Field Artist:** [fieldartistcentral.com](http://fieldartistcentral.com)

many other activities. It can produce barcode labels to use on printed music, thus allowing students to check out sets of literature for which they are then responsible. The program also provides many easy phone, text, and social media communication options. ■