



TunePal: A Portable Music Storage and Retrieval Tool for Musicians

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INTRODUCTION

- Irish traditional musicians typically have a repertoire of several hundred tunes [1].
- Musicians gather in informal settings known as *sessions* to play together [2, 3].
- Sessions take place in shared spaces such as a pub or open house.
- Sessions are usually open in the sense that any musician of appropriate standard can join in [1, 2, 3].
- It is not uncommon for participants at sessions to have never played together prior to meeting at a session.
- This can lead to interesting challenges as musicians try to find a repertoire in common.
- Current estimates suggest there are at least 7000 traditional tunes in existence [1].
- In recent years, the ABC format has emerged as a language for the storage and transmission of tunes electronically.
- TunePal is a program that runs on a portable device that can store and play tunes in the ABC format.
- It supports several unique features that make a useful tool for traditional musicians to use at sessions to assist in recalling tunes.

FEATURES OF TUNEPAL

- The ability to display lists of tunes, sortable by title, alternative title, type, key and composer.
- Fast recursive searches. (2000+ tunes can be searched in seconds)
- Plays tunes in any major, minor, mixolydian or dorian key.
- Sharps, flats naturals, repeats, ornaments, rolls, tuplets.
- Real-time speed and volume adjustment.
- Playback and repeat of a sub-section of a tune to enhance learning.
- Transposing of tunes.

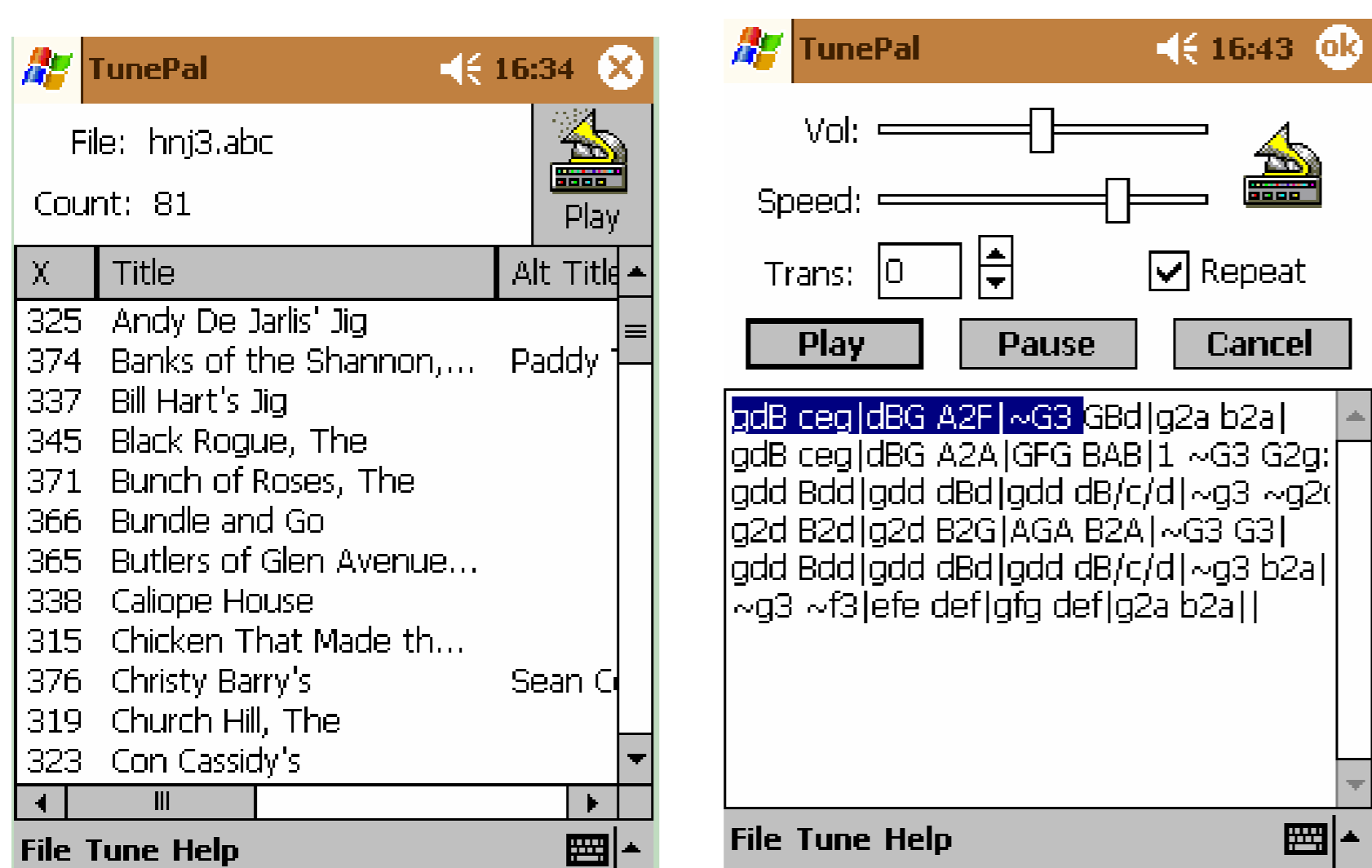


Figure 3: Screen shots of TunePal on Pocket PC

DISCUSSION

There is an active and vibrant community supporting the ABC format and a diverse range of tools have been developed for a variety of platforms and purposes [4]. Additionally, comprehensive archives of tunes exist in the format, including a transcription of O'Neill's "Dance Music of Ireland" [5]. TunePal was tested on a

popular collection of approximately 2000 tunes created by Henrik Norebek [6]. This collection includes many tunes commonly played in sessions.

Figure 2 depicts musicians using TunePal at a session.

The program was made available for free download [7] in early June 2004 and initial feedback has been very positive.



Figure 2: Musicians compare tunes using TunePal

FUTURE WORK

- Improved support for the ABC format.
- MIDI support for better quality sound output.
- ABC output as stave notation, to facilitate musicians who prefer this format.
- Searching by playing. Many tunes have several names, while others have none at all. A useful feature would be the ability to play a phrase from a tune and have the program match it.
- The ability to wirelessly share tunes.
- Automatic tune transcription to the ABC format.
- Porting the program to the J2ME platform so that the program could be run on a Java enabled mobile phone.
- In the past, the transmission of tunes was largely oral. The advent of the internet and the ABC format has already had an impact on this transmission. Access to archives of thousands of tunes on a portable device which can be used in sessions can facilitate new ways of learning and interaction. This area remains to be investigated.

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