

.dss (Digital Speech Standard) = MP3 for speech

Leading international speech recording standard continues to prove itself

Nuremberg/Hamburg/Vienna, March 2005; Digital Speech Standard (.dss), a digital speech recording standard jointly developed by Grundig, Olympus and Philips 10 years ago, has established itself as the de facto speech standard for professional applications. This speech standard answered the need for high-quality, professional dictation and speech solutions for the modern digital information society. Offering high audio quality for spoken language, .dss allows a high compression rate, making it easy to manage audio files in the workflow system and to exchange them by e-mail.

Joint Standard Guarantees Compatibility and Additional Features

With .dss, Grundig, Olympus and Philips established the foundations for simple fast and above all, standardised processing of digitised speech today. Based on an idea from Philips, Grundig developed the first .dss codec (encoder/decoder) in 1994 with the University of Nuremberg. The digital speech standard, with its special compression technology introduced in 1997 as the result of a joint development, is based on this earlier codec. The introduction of .dss marked the establishment of a compatibility standard for digital audio files in speech format that drastically reduces both file size and transfer volume for speech recordings. In addition to the special compression technology, it provides extensive extra features for processing digital speech recordings. For instance, speech files in .dss format are ideal for efficient processing in complex workflow / work processes.

Since its introduction, .dss has established itself as the file format for professional speech files. For the user, this means comprehensive cost, time and application benefits. When companies, hospitals, government offices and authorities or other users are planning a switch to digital dictation technology today, .dss is the first choice with regard to a standardised and future-proof storage format for speech files.

The Requirements: High Compression with High Audio Quality

The requirements for a digital storage standard for voice were extremely complex from the start. A primary goal of the specification was a high compression rate without noticeable loss of quality, as well as low energy consumption. The compression was to permit efficient memory usage and data transfer for digitised speech. The quality had to be retained so that even quietly spoken passages could be clearly understood and speech recognition could be applied. At the same time, everything had to be accomplished at a reasonable computational expense in order to keep power consumption in check because mobile dictation devices are frequently used for extended periods.

MP3 for Speech

As a compression algorithm for speech, .dss is comparable with the music format MP3. Although the sound quality differs only negligibly from the uncompressed original, .dss files are very small. This allows them to be transferred quickly to the PC and easily sent by e-mail. Because the technology only compresses the parts of speech that are truly important, the standard practically filters out the concentrated speech of a dictation without losing quality. A 10-minute dictation that requires only about 1 MB in the .dss format, requires up to 12 times as much memory with typical compression.

.dss in the Workflow

A separate program is required for the further processing of .dss speech files, for example in the form of powerful transcription software. This software allows .dss files to be played back and converted to various formats. In addition, workflow management programs are available that allow the management and transmission of files according to specific rules, and support comprehensive utilisation of the diverse functionality and features of digital dictation technology.

This software is at least as important for the "workflow" in a company as the system platform because .dss is more than just a pure speech recording format. The ability to store additional information in the .dss header file makes the .dss standard a particularly useful tool. For example, if the dictating physician enters a specific code in the device, an option available in the best devices, then the PC software "knows" that the dictation is an operation report and automatically forwards it to a specific office for processing. This allows process-safe and permanent association of scanned patient data with the dictation.

The .dss format is maintained as a manufacturer-independent and international standard for professional speech processing by the International Voice Association (IVA). The IVA was founded by Grundig, Olympus and Philips to ensure that all specifications are defined according to the standard. The standard is also a manufacturer-independent standard that can be used – under certain conditions – by any manufacturer, as long as it is used in professional devices. This guarantees the user a secure investment in terms of the procurement, use and future compatibility of his systems.

To increase the visibility of the standard and make it more transparent for the users, the members of the IVA have now agreed on a standard logo as a sign of recognition and quality.



About Grundig Business Systems

With over 4 million dictation systems sold and more than 50 years of experience, Grundig Business Systems (GBS) is one of the leading manufacturer of professional dictation systems worldwide. As a premium manufacturer, GBS is committed to products "Made in Germany" and the only company in the industry that develops and produces products within Germany. Since the end of 2003, GBS is independent of the previous parent company Grundig AG and now an owner-managed company. More about GBS in the Internet: www.grundig-gbs.com

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